Cover Template Copied from: 2023 Unit Template and Cover Sheet Template for Curr Writers, Copied on: 10/13/23

Content Area: **Sample Content Area**
Course(s):
Time Period:
Length: **Sample Length**
Status: **Not Published**

Course Name

Preschool Curriculum ~ Tools of the Mind

Table of Contents

Large Group Literacy

Content Area: **Language Arts**
Course(s):
Time Period: **1st Semester**
Length: **annually**
Status: **Not Published**

Large Group Literacy

The Tools of the Mind curriculum consistently supports the development of literacy skills through varied authentic opportunities for children to discuss, use, and make print materials. The large group literacy block is a time where children are conversing with their peers and learning to "read" through Buddy Reading and even scribbling as a form of early writing through the use of Graphics Practice. Other large group literacy activities encourage students to use phonics strategies to sound out words using Elkonin Boxes as well as practice writing by doing their own Write Along to the Message of the Day.

Buddy Reading

In Buddy Reading, a pair of children "read" books to each other, initially labeling the pictures and then retelling the story. First one reads and the other listens, then they switch roles. Mediator cards (Lips, Ear) remind them of their roles. The activity progresses to children discussing their books with one another using the Story Lab–Active Listening, and later Story Lab–Connections, mediator cards.

Research shows that children need a variety of experiences with books before they can begin to read. They need to know how to handle a book: finding the cover, holding the book right-side-up, and turning the pages one at a time with care. Children also need to learn the purpose of reading, which is to tell a story, learn some facts, or to share a story with someone else. In addition to book-handling skills, children need many oral language skills that will lead them to become good readers. These include using new vocabulary, practicing the language of books and written text, and enjoying the sharing of books with others. Young children get many experiences listening to stories and watching adults read to them. and may even be allowed to turn the pages for the adult. But some children never get to experience acting like the reader rather than the listener. Buddy Reading is designed to give them this kind of practice.

The reason for the mediator cards (Lips, Ear) is simple. Without them, typically the child who is the most assertive in a pair will read; the less-assertive child may not get to read unless the teacher is standing there telling the buddies to take turns. In this activity, we want children to gain self-regulation—that is, we want them to be able to regulate themselves and take turns without a teacher orchestrating everything. By handing out cards, the teacher is

handing over responsibility to the children for remembering who is to read and who is to listen. With self-regulation, children monitor their own turn taking.

Structure of Buddy Reading

<u>Materials</u>

• **Four labeled book tubs, about 10 books in each**

— Each tub is labeled with an icon representing the type of book in the tub. The tubs can be organized by theme (play themes or themes such as animals, family, transportation, fairy tales, etc.) or other categories, such as books by favorite authors.

• **Lips and Ear mediator cards**
— Each pair of children will need 1 Lips and 1 Ear card (see Materials Kit or eTools; shown)
Classroom Setup and Teacher Preparation
• Buddy Reading begins with the whole class sitting together on the rug, with book tubs on the rug or on nearby shelves.

Flow of Buddy Reading

1. A few children at a time choose their books, then return to their seats.
2. Pair children intentionally, passing out the Lips and Ear mediator cards. Have children say their role to you as you hand them the card.
3. The first child with the Lips card (Reader) reads, and the Ear listens. Then, they trade cards and roles. Move around the room to support pairs, helping the Lips cue the Ear to listen, helping pairs sit so both children may see the books, and setting up peer scaffolding as appropriate. Sometimes a teacher partners with a child or pair when more support is needed.
4. When the activity is over, collect the mediator cards and have children put their books back in the correct tubs.

Organizing the Buddies
Always pair children after they select their books. If you give children the mediator cards first, they will forget who their partners are and may lose their cards when they return to their seats.
• You want the pairings to work out so that children read and interact with a different child each time; do not allow children to choose their partners. At the beginning of the year, you can engineer the pairs so that a more mature child is paired with a less mature child. If two immature children find themselves paired together, you or another adult needs to sit with them to facilitate their interaction.
• If the class has an odd number of children, one teacher will need to be a buddy at the beginning of the year. By the middle of the year (around December), children will be practiced enough that you can have one group of three.
• Have children sit side-by-side so that each child can see the book. Prompt the reader to ask if the listener can see, and help children make physical adjustments when necessary.
• All children stay in one central area on the rug to read books with their buddies. If given the choice, children who typically need your support to stay on task often move to more remote areas, where they don't receive the scaffolding they need. Although it seems counterintuitive, children will be able to concentrate together and do not need to be isolated from others to pay attention. Children have to learn to pay attention and work with the other children next to them. Buddy Reading is a motivating and fun activity that supports children's development of the ability to sustain attention despite distractions.

Increasing the Challenge - Buddy Reading

• Model for the whole group what it looks like to "read" a book when you are not yet recognizing or decoding words. Go through a short, familiar book and tell the story by describing what you see in the pictures. From time to time, point to a word and read it.
• Introduce or review the book tub icons when the activity is new, or when you've refreshed the books.
• When selecting partners, give children who have little inhibitory control the Lips card first, so they begin the activity actively engaged as a Reader.
• Teach children how to sit so their partner can see the book. The Reader/Lips role is to tell the story or name the objects in the book, and to make sure the Listener/Ear is attending and engaged. The Listener/Ear's role is to listen closely and respond to the Reader/Lips.

• When children are becoming familiar with the activity, cue them at the halfway mark and prompt them to switch roles. Over time, children will internalize the process and won't need a reminder.
• If pairs of children finish reading early, have the children get new books to read to each other.
Additional Materials
• Lips with question mark mediator card
• Story Lab— Active Listening mediator card
• Story Lab—Connections mediator card
• Decodable books tub — In the spring, some children may be ready for a tub of easy decodable books. Also, add class books created in Story Lab–Story Extensions to a tub.
• Introduce the Story Lab—Active Listening mediator, as well as the new Lips card with a question mark. Explain to children that when the Lips role is reading, the Ear is going to be thinking, "What do I like?" When the Lips is finished reading, the question mark reminds the Lips to ask the Ear, "What did you like?" and listen to their response before switching roles.
• When the children have internalized these added steps, add the Story Lab—Connections mediator to Buddy Reading, as well. Introduce only the card with the question, "Can you make a connection?" The card with the three kinds of connections is too complex for most young children to use independently.
• Prompt new private speech as you hand children their mediator card, including the new action that's been added to each role. For example, if the Story Lab—Connections "Can you make a connection?" card is posted, the child with the Lips card would say, "I read and ask 'Can you make a connection to my book?'" The child with the Ear card would say, "I listen and say the connection I made to your book."

Summative Assessment - Buddy Reading

Ages 3 4 5	Concepts of Print in Buddy Reading
	— Holds book upside down or starts from back of book
	— Holds book right side up and turns pages, sometimes as a clump, sometimes individually
	— May point to pictures in book, but does not converse with another child over book
	— Uses simple point-and-label strategy for a few pages. Says name of object while pointing
	— Talks about pictures seen, like taking a picture walk ("There are bears here, a dog, a cat…")
	— Combines remembered elements from story or similar story with descriptions of pictures to make narrative ("The cat was walking to the park. He sees a dog…")
	— Combines remembered text from story with descriptions of pictures ("It's too hot. It's too cold. It's just right")
	— Points to text while reading, using inflections and repeating pieces of text from memory. May run finger along the text, but without isolating individual words. May not sweep when moving to next line of print
	— Reads "on the words" in predictable books (voice-to-word match), pointing to each word as read. May not be decoding words, but is sight-reading most words. May substitute word for one forgotten
	— Reads words in text. May read some words from memory, but stops at an unfamiliar word to decode. Decodes words using reading strategies such as initial sounds, consonant and vowel sounds, and word families

Ages 3 4 5	Oral Language in Buddy Reading
	— Points or gestures to pictures in book — Points or gestures to identify pictures in book when prompted — Labels nouns in book ("dog," "cat," "box") — Describes or comments on object/character ("big Clifford"). May use incomplete sentences — Describes what is happening in picture ("She's walking"). Uses complete sentences — Uses book-like language ("The cat is walking" … "There's a big one here") — Has a narrative ("The cat is walking. She sees a box. She smells it"); but narrative may jump from event to event, skipping important events — Uses new vocabulary words in narrative — Retells story using pictures — Asks and answers **Active Listening** question — Retells story from memory, with beginning and ending main events in sequential order — Uses connectives such as *and* or *then* in retell of story — Asks and answers **Connections** question — Retells story from memory, with main events in sequential order — Responds to buddy's comments or answers to questions — Discusses story, asking own questions or making comments related to inferences and predictions of why certain things happened — Monitors buddy's understanding of comprehension question or response to own answer. Clarifies question or own answer if buddy does not understand

Ages 3 4 5	Self-Regulation/Turn Taking in Buddy Reading
	— Ignores books and partner — Will look at own book, ignoring partner — Can follow only one role and ignores other role (reads even when it isn't her/his turn) — Can identify Lips and Ear mediator cards and state what each mediator stands for when prompted — Has difficulty ignoring other children nearby — Has difficulty being listener first — Can state what each mediator stands for independently — Can follow first role with no prompting — Can exchange roles, but has difficulty starting second role without support of teacher or peer — Other-regulates. Criticizes buddy or tells buddy his/her role — Can exchange roles. Independently reads own book when has Lips and listens to partner's book when has Ear — Remembers to ask comprehension question and remembers how to answer it — Has internalized listener and reader roles. Participates in a conversation about book without Lips and Ear — Monitors partner's attention. Tries to regain partner's attention — Has several conversational turns over the comprehension question

Graphics Practice

In Graphics Practice, children develop fine motor and self-regulation skills while they practice forming graphical marks and shapes they will need for writing. They do this by drawing specific figures on whiteboards, stopping and starting in response to musical cues.

Graphics Practice provides experiences to develop children's self-regulation, focused attention, and deliberate memory at the same time it promotes fine motor coordination and the use of a writing instrument. Children practice self-regulation by using the Vygotskian tactic of private speech to guide their movements, and stopping and starting their fine motor movement in response to the music. Private speech is used to support the children in remembering what the mark is and how to make it. Children have to be taught to use private speech, and one of the goals of this activity is for them to practice this. For example, children say " down, hook, across " when making a capital letter J. The private speech is used together with the music, so that the children learn to regulate their actions to match the music (stopping and starting, speeding up or slowing down). Children start and stop drawing several times during this activity. They must inhibit behavior and then enact it, thus practicing self-regulation in a way similar to the Freeze Game.

Stopping and starting are slightly more difficult than in the Freeze Game, however, because during Graphics Practice children have to remember the shape or figure they are making when the music stops, and start again where they left off when the music restarts.

Graphics Practice also promotes focused attention and deliberate memory. Children have to pay attention and remember the directions for drawing the shape. The activity is composed of multi-step directions that become more complicated as the year progresses. At the beginning of the year, the directions are simple: "You make the mark, you make it to the music, and you stop when the music stops." These become progressively more difficult, such as "You make a specific shape of a specific size and in a specific position, the shape is a part of a figure, you make it to music, and you stop when the music stops."

In addition to supporting self-regulation, Graphics Practice provides an intrinsically motivating activity in which to practice holding a marker (or other writing instrument), and draw shapes that will be later used to form letters and numbers. You support the drawing of the shape with the correct movement , with the idea that over time the shape will become more and more precise as the child perfects the movement. In other words, children do not need to make the shape correctly, they only need to have the correct motor movement. Thus, during Graphics Practice, children can practice the pieces necessary for writing without having to reproduce a shape exactly. The figures are built systematically so that children receive the practice they need and the skills build slowly in a fun, successful way!

Flow of Graphics Practice

1. Tell a story to support the figure, creating a pretend context for the activity. Then, demonstrate the figure and give children the private speech for it.
2. Prompt children to begin drawing with the correct marker grasp. For example, have them make a duck's bill with their fingers and put the marker in the duck's mouth: "Remember, quack, quack."
3. Children practice drawing the figure and saying the private speech.
4. Play the music, stopping it briefly for a few seconds at least three times. Each time children draw and stop, holding their pen just above their whiteboard. They do not erase the board.
5. Children erase the whiteboard, and the teacher begins the cycle again by introducing another figure

Increasing the Challenge - Graphics Practice

• When demonstrating how to draw the figure, emphasize these key points:
- Vertical lines are drawn from top to bottom
- Horizontal lines are drawn from left to right
- Circles start at the top and are drawn counter-clockwise

•This activity works best if one teacher has the job of starting and stopping the music while the other teacher demonstrates and models drawing, circulating to scaffold individual children when they begin to draw.

• Introduce a new figure when most of the children perform the current one correctly. As soon as you are able, do two or three figures in one Graphics Practice session. One or two 'warm ups' of a previously introduced figure and one or two new figures.

• Vary the tempo of the music children draw to over time so that they are matching their mark making to varying tempos.

Summative Assessment - Graphics Practice

Structure of Graphics Practice

Materials
• **Small whiteboards** —One for each child, and one for the demonstrating teacher
• **Dry-erase markers**
• **Erasers** —Paper towels, old socks, or small pieces of cloth, to clean the whiteboards
• **Recordings** — Instrumental pieces of music, with tempos varying fast to slow

Classroom Setup and Teacher Preparation
• This activity can alternate between being seated at tables and lying on the floor.
• Plan in advance how you will distribute whiteboards, markers and erasers to each child so the activity flows smoothly.

Elkonin Boxes

Elkonin Boxes I & II provide practice in phonemic awareness and the alphabetic principle — that is, hearing all of the sounds in a word in the order in which they appear. Different gestures are used to represent phonemes and words, and children practice isolating and blending phonemes. There are two different games. In the first game, Elkonin Boxes I–Jumping the Sounds , children jump from carpet square to carpet square as they say the phonemes. In Elkonin Boxes II–Token Game , children push tokens into the Elkonin Boxes on a card.

Note: Elkonin Boxes I & II are only appropriate if most of the class is at the IS level in Scaffolded Writing, which means they are able to identify all of the initial sounds in their messages using the Sound Map, without adult support. If there are too few children at this level, this activity will be outside of their ZPDs. Keep in mind that this is something that children will practice in kindergarten, so postponing it until the skill is within their ZPDs is developmentally appropriate.

Flow of Elkonin Boxes I

Introducing the Game

1. Show children the first Elkonin Boxes card, pointing to the picture. Say the word, and have children repeat it. Point out that this is the same card they have seen in Mystery Word, and the boxes stand for the sounds in the word.
2. Model the hand gestures. Use the fist (whole hand) gesture for the word, and individual fingers for each phoneme. (If children have enough
coordination, they can put out a different finger for each phoneme. If they do not, they can just tap their hand with their fingers for each
sound.) For example, when you say "Cat ... /c/, /a/, /t/ ... cat," the gestures would be fist, fingers, fingers, fingers, fist

3. Have children practice doing the hand gestures and using private speech at the same time.
4. Repeat for another card.

Playing the Game

1. Show children the first Elkonin Boxes card, pointing to the picture. Say the word, and have children repeat it.
2. Prompt the jumping child to begin jumping, and prompt the children watching to use the hand gestures and private speech. Provide support as needed so that the timing of the child's jumps matches children's pace as they say the sounds.
3. Repeat steps 1-2 for the same card or a new card.

Increasing the Challenge - Elkonin Boxes I

• In the beginning, all children jump the same word.
• Begin with three-phoneme words.
• When you articulate each sound, say it crisply so children hear only that sound. So, for example, when you

do the word cat, you say the sounds as "/c/, /a/, /t/" not as "caa, aaa, tuh." Be sure children say the sounds crisply, too.
• Fade out your voice so you can tell if the children are saying the sounds. If they are not, try slowing it down until all the children get the rhythm.
• Each child jumps a different word. Continue to use words that are familiar to children from Mystery Word.
• Introduce four-phoneme words.
• Introduce Elkonin Boxes II.

Structure of Elkonin Boxes II

Materials
• **Elkonin Boxes cards** — Choose cards with just three phonemes, and have enough so that each pair of children has two or three cards plus enough for a pile in the center of the table
• **Teacher and Student icon cards** (see Materials Kit or eTools)
• **Tokens** — These should fit inside the boxes on the card
• **Bowls or paper discs** — To hold the tokens (similar to Making Collections or Numerals Game; one for each pair of children)

Classroom Setup and Teacher Preparation
• The teacher chooses 8–12 cards appropriate for the game from the collection of Elkonin Boxes cards. The bottom of cards that work well for this game will read "Elkonin I, II." Choose cards with the same number of phonemes, beginning with 3 phoneme words. Cards should be familiar at first from Elkonin Boxes I and Mystery Word.
• Children are seated at tables in two small groups. Pair the children, and have them sit beside their partner (not across from them).
• Pass out materials to each pair: at least two cards, plus a pile of extra cards on the table; a Teacher and Student card; a cup with about 8 tokens

Flow of Elkonin Boxes II

1. Pair children and pass out materials. Children decide who will start in the "Teacher" role, and who will start in the "Student" role.
2. The child who is the Teacher pretends to teach the child who is the Student how to play the Elkonin Token Game, "teaching" the word-phoneme-word gesture sequence. The Teacher makes sure that the Student is following along.
3. The Student follows the Teacher's lead, making the hand gestures as the Teacher pushes the tokens into the box, and saying the whole word with the Teacher
4. Children trade roles. They can repeat the same card again or go onto a new one.

## Structure of Elkonin Boxes I

Materials
• **Elkonin Boxes cards** — Elkonin Boxes cards are labeled at the bottom, identifying the activities for which they are appropriate; look for "Elkonin I, II" on the bottom of the cards appropriate for this activity (see Materials Kit or eTools; examples shown)

• **Jumping boxes** — Two more than the number of boxes representing the number of phonemes on the card. For example, for a three-phoneme word, you would have five boxes. For a four-phoneme card, you would have six boxes. You can use a variety of materials for the boxes: carpet squares or non-slip rug pads, pieces of play foam, or even paper squares taped to the floor. If you're making the boxes, it's helpful to make the first and last ones, which represent the full word, wider than the others.

Classroom Setup and Teacher Preparation

• Choose 3–5 cards from the collection of Elkonin Boxes cards. (At the bottom of the cards it should say "Elkonin I, II.") Select cards that are already familiar from Mystery Word.
• Choose cards with the same number of phonemes (e.g., all three-phoneme cards, all four-phoneme cards).
• Set up in an area where there will be enough space for children to stand in a line along the side, so they can observe the jumping child, who will be jumping from left to right, just as we would read the word on a page.
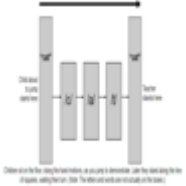
• The teacher stands where all the children can see the Elkonin Boxes card.
• The child about to jump stands in front of the first box.
• The remaining children stand side-by-side in a line, facing the boxes.
• After a child jumps, they go to the end of the line, and the next child steps up to the first box.

Summative Assessment - Elkonin Boxes

Increasing the Challenge - Elkonin Boxes II

• The first time the activity is introduced, give all children the cards for cat and bed. There are many duplicates so all children may work with the same cards at the same time. Model and practice how to play the activity using these cards.
• Children move at their own speed, taking a new card when they both have finished with each of the cards that they have.
• Mix a few new Elkonin Boxes cards (cards children have not seen before in Mystery Word or Elkonon I) with a few familar cards.
• Introduce 4 phoneme words.

Write Along

Write Along is an extension of Message of the Day. In Write Along, children write the daily message using Scaffolded Writing instead of watching the teacher write. This will be the first time that children are all writing the same message. The teacher says the entire message, then the children draw the lines on individual whiteboards, reread the empty lines and write on the lines, depending on their level of Scaffolded Writing development.

Flow of Write Along

1. Say the message aloud and have children repeat it.
2. Children write lines on their whiteboards as they say each word in the message—Say, "I'm going to write with my magic pen. Remember to draw your lines. We are ... (pause as you pretend to draw the lines with your "magic pen," and fade out your voice).
3. Prompt children to reread their empty lines, and then write on the lines (each child working at their own level of Scaffolded Writing). They can draw on their whiteboard after writing at level in their ZPDs as they wait for peers to finish writing.
4. Teacher cues children to finish up (adding one more sound, for those that are writing at IS-AP levels) and then children read their message to a friend, pointing to each word (or line) as they read.

Summative Assessment - Write Along

Ages 3 4 5	Sound Map Use during Scaffolded Writing
	— Cannot distinguish picture, word, sound the word represents, and letter
	— Responds that two sounds from different areas of map or clusters sound different when teacher provides the comparison
	— Uses map to find a sound when teacher gives a choice between two sounds in clusters on opposite sides of map
	— Searches in appropriate area of map for a sound before teacher gestures to the area
	— Looks to correct cluster of sounds without support, but needs support to identify correct sound in cluster
	— Picks sound in correct cluster for initial sound without support. Sound may not be the correct one (e.g., picks /v/ for /f/)
	— Picks correct sound for initial sound for most words when teacher supports sounding out the word (e.g., the teacher says "/b/, book " and child can find the sound /b/)
	— Can say word, isolating initial sound, but has difficulty remembering sound long enough to find it on map. Identifies intial sound on own, but needs support finding \ correct sound (e.g., says "/b/ook" but needs help figuring out if it is /b/ or /f/)
	— Identifies intial sound and finds correct sound without support for most familiar words
	— Uses letter names interchangeably with sounds when discussing sounds for most commonly used letters
	— Uses the map for new initial sounds and has others memorized
	— Picks correct sound when teacher says the word accentuating the ending sound (e.g., teacher says "book, /k/")
	— Identifies ending sound independently, but needs support to find ending sound for some sounds (e.g., /v/ and /f/)
	— Uses map only for new ending or medial sounds, or for sounds heard using the alphabetic principle

Ages 3 4 5	Scaffolded Writing
	— **PL = plan.** Has idea of a plan or what to draw/write in advance
	— **P = picture.** Represents idea or message with representative picture of his/herself and the objects involved in idea being written about
	— **M = message matches the teacher's lines.** Creates message using stem ("I am going to…") and when teacher writes the message, slows words to match teacher's writing
	— **L = lines.** Makes lines to represent words and has voice-to-line match
	— **IS = initial sounds.** Writes a letter to represent initial sound heard in the word that is close to correct sound
	— **ES = ending sounds.** Writes a letter to represent ending sound heard in the word that is close to correct sound; also represents the word's initial sounds correctly
	— **MS = medial sounds.** Writes a letter to represent medial sound heard in the word that is close to correct sound; also represents word's initial and ending sounds correctly
	— **AP = alphabetic principle.** Represents each of the consonant and some vowel sounds in word in the order in which they appear in word
	— **WP = word patterns.** Includes word patterns correctly in writing, beginning to spell many words conventionally in addition to using the alphabetic principle (*kindergarten*)
	— **Drops lines but maintains quality of writing** — No longer needs lines but still uses the alphabetic principle and word patterns. Writes multiple sentences (*first grade*)
	— **Uses conventional spelling of most familiar words and simple punctuation** (*first grade and beyond*)

Structure of Write Along

Materials

• **Large whiteboard** — This can be displayed on an easel (you will be pretending to write the message, modeling with a "magic pen")

• **Individual whiteboards** — Use the whiteboards from Graphics Practice or a piece of paper under a sheet protector

• **Dry erase markers** — Just as in Graphics Practice; any marker that works on a sheet protector

• **Sound Maps for every two children** — Place Sound Maps between pairs of children so that children engage in shared activity looking at them with a peer

Classroom Setup and Teacher Preparation

• Children sit on the rug with markers, whiteboards and Sound Maps available.

• Choose a message that beings with the stem "We are going to..."

Increasing the Challenge - Write Along

• Both teachers circulate to scaffold children and set up peer scaffolding.
• For the first three weeks, repeat the previous day's Message of the Day for Write Along, so children are writing a familiar message. This allows children to bring more attention to identifying letter sounds, rather than remembering the message.
• Choose messages with strong, easily identifiable initial consonants (e.g., /b/ or /k/) to support children's practice finding sound-to-symbol correspondences.
• Choose messages with both long and short words. Give children practice in thinking about the length of lines they need to draw.
• Introduce messages the children haven't seen before in Message of the Day.

Enduring Understanding

Buddy Reading

For children to:

• Strengthen oral language skills and build vocabulary
• Learn how to handle books and "pretend read"
• Practice conversing with peers and engaging in positive social interaction
• Take turns and learn to act independently (self-regulation)
• Practice recalling elements from a book with the book as a support (starting midyear)
• Practice active listening, making connections, and other strategies introduced in Story Lab in a shared context with peers (starting midyear)

Graphics Practice

For children to:
• Practice self-regulation/inhibitory control by stopping on cue and following directions for a specific shape
• Increase working memory as they draw figures requiring multiple steps
• Use language (private speech) to attend to the salient features of specific motor actions, such as making penmanship marks or forming the correct grasp on the writing instrument
• Draw specific graphical marks and shapes that will contribute to better drawing and that underlie letter and number formation

Elkonin Boxes

For children to:
• Practice physical self-regulation
    - Inhibit action
    - Act on-purpose
    - Follow directions
    - Use private speech as a tool for remembering and staying on task
• Practice identifying phonemes in a word using the alphabetic principle

Write Along

For children to:
• Practice Scaffolded Writing
• Learn specific literacy concepts: concept of word, metalinguistic awareness, sound-to-symbol correspondence, reading from top to bottom and left to right with return sweep, punctuation
• Learn to reread written messages: point to each word when reading, make connections between symbols and sounds

Essential Questions

Starting open-ended questions:

1. What would happen if...

2. What do you think about...

3. I wonder...

4. In what way...

5. Tell me about...

6. How can we...

7. What would you do...

8. How did you...

9. Why do you think…

After asking your child an open-ended question, allow quiet time for them to think before responding to your comment or question. Young children often need extra time to decide what to say and how to say it.

Suggested Modifications for Special Education, MLL, and Gifted Students

Buddy Reading

• If you have dual-language learners in your group, allow children to "read" in any language they wish. If one child is paired with a buddy who doesn't speak the child's language, encourage the child to point to the pictures and say the words in the child's home language. Support both children so they can partner successfully.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity

Suggested Modifications for Special Education, MLL, and Gifted Students - Graphics Practice

• Even after a few months, any children will still be using an incorrect grasp and may still revert to their original grasp. Continue to gently correct this at the start of each figure by using the "Quack, quack" mediation. For children who need additional scaffolding, hand-on-hand support may be helpful. Help the child make the motion by positioning the marker in the correct hand grasp and then making the mark together. Gradually release your hand, keeping it right above the child's. If the child can continue the mark without help, remove your hand.

• Don't worry about children drawing everything correctly. Focus on children's stopping and starting with the music cues and their use of private speech. The figures will come over time with many repetitions of practice.

• Keep in mind that some children may forget the shape they are making. Some may stop too early; others will keep drawing after the music stops. It takes many opportunities to practice before children do all of these steps correctly.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Suggested Modifications for Special Education, MLL, and Gifted Students - Elkonin Boxes 1

• Not all children will be able physically to jump the boxes. Instead, a child can walk the squares, roll on them in a wheelchair, point to squares drawn on a piece of paper, etc. With small adjustments, all children can participate.

• It is typical that, at the beginning of learning Elkonin Boxes I, children will jump without relation to the sound, sometimes not even on the carpet squares. Some children cannot jump and say the phonemes at the same time. Most children have to be reminded to say the phonemes as other children are jumping, and they may also need support for the physical action of making a fist and pointing fingers.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Suggested Modifications for Special Education, MLL, and Gifted Students - Elkonin Boxes II

• Children who have not reached the M level in Scaffolded Writing will not benefit from the phonemic aspect of the activity. (They will, however, benefit from the self-regulatory aspects of the activity.) They will memorize the phonemes like a poem or a fingerplay. This is not harmful, but it does not serve the purpose of teaching phonemic awareness. Consequently, waiting until there are sufficient numbers of children at SW level M to benefit is important.

• There will be children who need additional support to engage in activities and meet learning goals. There

will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Suggested Modifications for Special Education, MLL, and Gifted Students - Write Along

• If you have dual-language learners in your group, children can write the message in either language.
• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.
• Have children who need support sit at the edges of the group so you can work with them without disrupting other children's writing.

Diversity and Cultural Awareness

Buddy Reading
Select books that build children's awareness of the diversity of our world, their community and the families in your program. See the Tools of the Mind Recommended Book List on eTools featuring titles that reflect diversity and build cultural awareness.

Graphics Practice
The stories you use to introduce figures can be modified so they are meaningful and relevant to your children. "Maybe your story is that you're making burritos for dinner. Make the tortillas, around and close; around and close. Scoop rice into a bowl to put out on the table—draw the bowls down, curve up; down, curve up." Have fun as you explore different possibilities.

Write Along
From time to time, use messages related to an upcoming holiday or cultural event like "We are going to make latkes." Over the course of the school year, be sure your messages reflect the traditions celebrated in our broader culture, your local community, and by the families in your program.

Standards

ELA.L.PK.1.d	Understand and use question words (e.g., who, what, where, when, why, how).
ELA.L.PK.1.f	Begin to speak in complete sentences.
ELA.L.PK.1.g	Understands and can follow simple multi-step directions.
ELA.PK.L.PK.1	Begin to understand the conventions of standard English grammar when speaking during interactions and activities.
ELA.PK.W.PK.5	With guidance and support, share a drawing with dictation, scribble-writing, letter-strings,

	or invented spelling to describe an event real or imagined.
ELA.PK.W.PK.7	With guidance and support, participate in shared research and shared writing projects.
ELA.PK.RF.PK.3	Demonstrate an understanding of beginning phonics and word skills.
ELA.PK.RF.PK.4	Begin to engage in a variety of texts with purpose and understanding.
ELA.PK.RI.PK.10	Actively participate in read aloud experiences using age appropriate information books individually and in small and large groups.
ELA.RF.PK.1.a	Follow words from left to right, top to bottom, page by page.
ELA.RF.PK.1.b	Recognize that spoken words can be written and read.
ELA.RF.PK.1.c	Recognize that words are separated by spaces.
ELA.RF.PK.2.b	Segment syllables in spoken words by clapping out the number of syllables.
ELA.RF.PK.2.c	Identify many initial sounds of familiar words.
ELA.RF.PK.3.a	Associates many letters (consonants and vowels as ready) with their names and their most frequent sounds.
ELA.SL.PK.1.a	Follow-agreed upon rules for discussions during group interactions.
ELA.SL.PK.1.b	Continue a conversation through several back and forth exchanges.

Make-Believe Play/Play Practice

Content Area: **Sample Content Area**
Course(s):
Time Period:
Length: **Full Year**
Status: **Not Published**

Make-Believe Play/Play Practice Overview

Make-Believe Play

Make-Believe Play is the leading activity for the development of self-regulation. This means that children develop self-regulation better during make-believe play than they do during other activities! Because it is so valuable for young children, teachers take an active role in supporting make-believe play. Teachers begin scaffolding make-believe play from day one. We find it helpful to discuss not only what teachers can do to support play, but also how play ebbs and flows at each stage of play. This gives teachers a better idea of how to time their interventions and understand what children at higher stages of play development can do when interacting with children at lower stages.

IMPORTANT: The teacher's goal in scaffolding is to support children's deep engagement in make-believe play. Signs of *deep engagement* are that the child:

- Stays immersed in the scenario, roles, and actions for the entire Make-Believe Play Center block
- Adds on to the scenario, changing it and making it more complex without losing interest
- Changes the props; innovates new props
- Changes roles; can play more than one role at the same time without losing the thread of each
- Does *not* wander off to explore other toys
- Does *not* change roles without explaining to playmates how the change affects the group's play

Between the beginning of the year and the spring, you will introduce at least five new Tools themes, change the classroom environment, and help children learn the new sets of roles, actions, and scenarios that accompany each theme. As you introduce a new theme, some children will revert back to lower stages of play as they are learning its roles, actions, and scenarios. Starting in the spring, you will begin to create your own

themes, following the interests of your children and reflecting the community in which the children live. Themes at this point in the year can involve children being able to move from center to center while staying in their role. As children mature, their play becomes more complex. The complexity of the social problems and the social interactions that occur between roles also become more complex.

Make-Believe Play Practice:
In Make-Believe Play Practice the teacher models different make-believe play roles, role speech, actions, and scripts, and children pretend along with the teacher and one another. The scripts are ones that children might use in the centers when they play together. The teacher uses role and action prompt cards to help children remember roles, scenarios, and scripts. Children practice playing using gestures alone and pretend to have the prop the teacher uses to
demonstrate. Make-Believe Play Practice occurs daily in the fall, and continues frequently when children are learning how to play. As the year progresses, Make-Believe Play Practice grows with the children. At the beginning of the year, Make-Believe Play Practice is critical to getting play started and helping children develop higher levels of play. Children practice simple scenarios and scripts together, melding them into a set of actions. They learn that the action prompts stand for a set of actions they can do, and that they can string these together to make a longer scenario for play. The teacher encourages children to invent new actions and scenarios/scripts and shows children how to draw their own action icons. Later in the year, Make-Believe Play Practice is critical to broaden children's background knowledge and vocabulary when introducing themes children may not be familiar with, and to add social and emotional complexity to play scenarios. Today's children need practice in pretending. Many children do not engage in make-believe play at home and so many come to school with very low make-believe play skills. Today's children play with realistic objects and consequently do not have much opportunity to use unstructured props, where something such as a block can stand for something else, such as a telephone. This activity allows children, with the support of the teacher, to imagine a scenario, a role, actions, and how they can innovate and use props. The practice will increase the child's ability to use props in a symbolic way and will eventually spread into dramatic play. During Make-Believe Play Practice, teachers also support the development of vocabulary, helping children learn new words to describe their roles, actions, and the names of objects used to pretend.

Time Block

Make-Believe Play
Every day during Make-Believe Play Center Block, teachers have a short scaffolding session with each child.

Make-Believe Play Practice
Make-Believe Play Practice occurs twice during the Make-Believe Play Block: Before Play Planning, and again after clean up from play. Before Play Planning, teachers lead a short reprise of the prior day's Make-Believe Play Practice to remind children of the play theme, roles and actions they may play that day. The full Make-Believe Play Practice happens at the end of the play block.

Structure of Make-Believe Play Practice

Materials
•Play Theme Planner — The back of the Play Theme Planner has a built-in guide for planning Make-Believe Play Practice simple scenarios and scripts (shown). The front of the planner guides you in identifying roles, props and
scenarios, as well as story problems to support higher-level play once children are familiar with roles, actions, and simple scripts.

Centers	Simple Scenarios & Scripts	Vocabulary
Dramatic Play/ Kitchen	Mom is fixing dinner for the family : • 'stirring, stirring' 'chop, chop' 'careful, hot' 'put it in' 'let's taste it!' • "Are you hungry?" "Do you want to eat carrots or peas?" • "Sister, can you set the table? Get the plates and silverware." "Okay, Mom." **Scenario & Script Evolution: What can happen next?**	Delicious, prepare the food, chop, stir, fry, mix timer, saucepan, set the table (cup, saucer, mug, fork, spoon, knife, plate), another helping, please pass, casserole, reheat, microwave, __ degrees, __ minutes, pot holder, hot
Blocks/ Garage/ Car	Family is getting read to go in the car on a trip. • "Car seat" "seatbelt" "here we go!" "driving, driving." "where's the map?" "are we there yet?" "Let's get out!" Family is going to build something • "I need help – can you get my tools?" • "Here Dad – do you want a screwdriver or a hammer?" **Scenario & Script Evolution: What can happen next?**	Car seat, directions, map, screwdriver, saw, paintbrush, measure, drive , pack, engine, motor, paint, red, blue (color words), key, gas
Science/ Bathroom	Time for baths. • "Washing, washing." "shampoo" "rinsing, rinsing." "drying you off" • "Can you help wash the baby? Do you want to wash her hair or her hands?" "I want to wash her hair." "Here's the shampoo – squeeze some in your hands Grooming • Wash my face, brush my teeth, fix my hair **Scenario & Script Evolution: What can happen next?**	Soap, shampoo, bubble bath, warm, hot, cold, shower, bath, washcloth, towel, hairdryer, conditioner, comb, brush, head, hair, eyes, ears, nose, lips, arms, legs, belly, feet, toes, diaper
Literacy/ Bedroom	The children want a story before bedtime. • "Bedtime!" "sweet dreams!" "pull up the covers!" • "Let's all get into bed, pull up our blankets and listen to our favorite story. Do you want to read ____ or __?" "I want to read _____!" **Scenario & Script Evolution: What can happen next?**	Interesting, exciting, funny, long book, short story, pajamas, nightgown, slippers, bathrobe, blankets, sheets, pillow, nightlight
Table Toys/ Family Room	The family gathers together to watch TV • "Turn it on." "Go to channel 3" "I like this show." "Let's eat popcorn." • "Let's watch TV – what do you want to watch?" "I like Discovery Channel?" The Family gathers to play games: • "Game time!" "puzzles!" "put it here!" • What game do you want to play, ____ or ____ or do you want to play with the puzzles?" "I want to play _____." **Scenario & Script Evolution: What can happen next?**	Take turns, board game, puzzles, read, TV show, remote control, DVD, movie, popcorn, scary, exciting, funny
Art/ Laundry Room	Mom has lots of laundry to do. • "Washing, washing." "Here's a sock and here's a shirt", "Fold it." "Put in the soap." "Who has quarters?" "Put it in the dryer." "Folding, folding." • " I need some help with all of these dirty clothes, let's sort them." "I'll make a pile of baby clothes, Mom." "And I will sort all the pants, Mom." **Scenario & Script Evolution: What can happen next?**	Colored clothes, white clothes, detergent, fabric softener, bleach, damp, dry, washer, dryer, buzzer, fold, sort

• <u>Role prompts and action prompts</u> — (shown) Role prompts have a happy face in the lower right-hand corner to signify role. Action prompts have a walking stick figure in the lower right-hand corner to signify action. These will be displayed when you do Make-Believe Play Practice with the children, and later in the centers. We find that teachers use a variety of systems to display the cards such as Velcro tabs, tape, or a pocket chart.
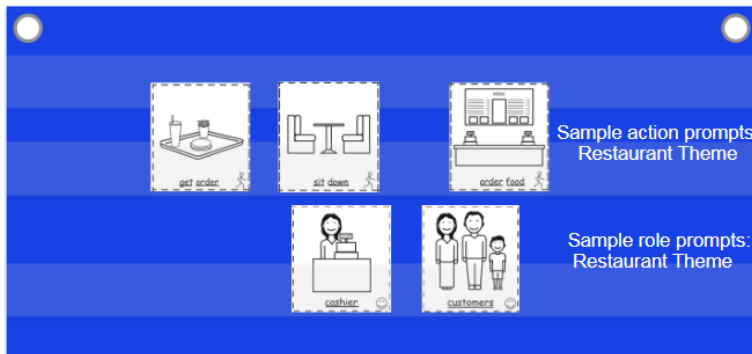
• <u>Blank role prompts and action prompts</u> — Small cards to customize classroom themes, starting around midyear

• <u>Story Problem Cards</u> (shown) — When children's play has matured, and after they have played a theme for a couple of weeks and established core scenarios and role speech, you can introduce a Story Problem Card. You will choose one story problem and dramatize it together, along with one or two possible solutions. The Story Problem Cards help children extend and expand their play in the latter weeks of a play theme.

Sample Play Theme Story Problem Card:
Family Themes

• <u>Flannel board, Velcro strip board, or pocket chart</u> — You will place the role and action prompts on this board to help children remember the roles and actions (and later, the order of actions) you are practicing. You will also build a scenario on the board with several actions put together in sequence.

• <u>Props from one of the centers (role props and action props to practice an action and eventually a scenario)</u> — Props can be specific things needed to demonstrate an action, or something that you and the children made during the theme-building process, such as a television made out of a box. If you are planning to practice giving the baby a bath, for example, then you would need a towel, a bathtub, a baby doll, and a washcloth. What you actually use for props for these elements can be more abstract; the tub could be a large metal bowl or plastic bin, the baby could be a stuffed sock with a face drawn on it, the washcloth could be a paper towel, the towel a scrap of fabric. You'll want to use the same props that the children will be using in the center for Make-Believe Play Practice, but you don't need "perfect" props to support high-level make-believe play. In fact, as time goes on, the more abstract the props, the better!

• <u>Let's Pretend eBooks </u>(available on iScaffold) — Taking children on field trips within your community—or even just in your school!—is a wonderful way to deepen their understanding of a play theme. However, for a variety of reasons field trips often aren't practical. Tools of the Mind's original Let's Pretend eBooks are here to help! They take readers on a *virtual* field trip through each theme. For every theme, there are six separate books to build background knowledge and give ideas for roles, props and scenarios. As you read the books aloud, children are prompted to engage in gesture and speech, including turning and talking to peers about playing the theme. Use them to guide and inspire Make-Believe Play Practice activities.

• <u>Pictures of real-life roles and actions </u>— Pictures of families in action in the different center theme contexts: living room, kitchen, etc. These can be pictures families send in or that you have taken, as well as from books or resources on the internet.

• <u>Books related to the play theme</u> — Stories and books that relate to the theme

Classroom Setup and Teacher Preparation

• Make-Believe Play Practice occurs on the rug in Large Group, but you may find at the beginning of the year

that two small groups work better, based on the needs of the students who make up your class.

• Children sit on the rug.

• You will want to display the action and role prompts so that all of the children can see them. You will also need a basket (or small container) of props. You want to use both a prop for the role and prop(s) to model the actions. At the end of Make-Believe Play Practice, you will move the role and action prompts to an identified place in each center to display them.

Structure of Scaffolding Make-Believe Play in Centers

Classroom Setup and Teacher Preparation

Defining the Centers:

• Label the six centers with the color-coded signs and icons so children may easily identify them.

• Bookshelves and classroom furniture are arranged to create and define separate, inviting spaces for sustained dramatic play.

• Label the shelves with both icons and words so children can independently put away center materials.

Planning for Themes:

• The Play Theme Planner is used to plan the environmental supports for each center. Role and action prompts are available and used; pictures, props, books, and center decorations help children remember the theme in each center. Color-coded play theme signs clearly identify the six centers.

Props and Materials:

• Props for dramatic play are available in all centers.

• Props in centers change with the theme and are reused in new themes where appropriate.

• Offer ample materials for exploration and sensory play at every center so children have many things to do. Include open-ended materials like writing supplies, paper towel tubes and blocks for children to make props and signs.

• When transitioning to a new theme, props unrelated to the theme are removed (e.g., there is no cash register in the home/family-themed play area, no princess gown in the grocery store).

Organizing the Make-Believe Play Block & Scaffolding Play Across the Year

Make-believe play is the leading activity for developing self-regulation. Consequently, it is at the heart of the Tools program. Your ability to scaffold dramatic play will determine the degree of self-regulation development that occurs in your classroom.

• *Length of the Play Period*: At the beginning of the year, the play period should last only as long as most of the children are able to maintain attention and focus in the center. The amount of time spent grows as children begin to mature in their play and stay interested in the center. The duration of the play of the activity should not exceed the group's ability to sustain dramatic play in the center. While our ultimate goal is that children be deeply engaged in play for the full 45–60 minutes of center time, this goal can be reached only if play is carefully scaffolded.

• *Scaffolding Interactions*: Teachers take an active, specific role in supporting make-believe play for it to develop to a mature stage. Teachers scaffold dramatic play with two specific goals in mind: (1) Increase the amount of time children spend deeply engaged in productive make-believe play. (2) Increase the quality of that make-believe play; that is, the roles and the scenario (or script).

•*Challenges to Anticipate*: It is not uncommon for children at lower stages of play to argue over props. They may be eager to play with the props but do not yet understand how to stay in a role with the prop. These arguments can get in the way of higher level players playing scenarios and roles. When this happens, use the Play Plan as a way to reset the play. If children start to argue over props, go back to the Play Plan and stress the prop as something that goes with a role. Help children find alternative props. In Tools, rather than emphasize turn-taking with props, we focus on being in a role that uses the prop, and then changing roles.

- You can say, "When you are the baker, then you can make the pizzas. You're the customer. What does

the customer do?" Help the customer see all the things that they are supposed to act out.

- You can also say, "After you play this and order and eat your food, I'll help you change roles." Then stay there until the short scenario is played out and help children trade roles.
- Tying the prop to the role is extremely important for the child to learn the role and the deep engagement that it engenders.

Flow of Make-Believe Play Practice

1. Introduce today's scenario using the role and action prompt cards the children will use. Help children learn and use new vocabulary related to roles, actions, and props (e.g., bottle, burping, diaper, etc.). Display the mediators in a place where children can see them during Make-Believe Play Practice.

2. Solicit ideas for what might happen in the scenario. Build background knowledge if needed by reading a Let's Pretend eBook, or showing photos of the roles and actions. If this is the first time you're playing this scenario, ask, "Have you ever done this?" or "What happens in your family?" If you have done it before, you can build on previous practices. Ask, for example,
"What did we do in this center when we pretended to feed the baby?"

3. Introduce one or two props from the center that you will use to demonstrate the actions children will practice. For example, for feeding baby you need a baby and a bottle. Demonstrate with the props, but the children practice pretending without props — using just their imaginations. At the beginning, pick two or three simple actions that relate to the action prompt. For example, the action prompt card for feeding the baby shows a baby bottle image, which represents a number of actions involved in feeding a baby.

4. Demonstrate these actions together in a scenario. Children play along, imitating the actions and role speech you model. For instance, you can prompt them to say "rocking, rocking" when they hold the baby and "pat, pat" when they burp the baby.

5. Make the connection between the series of actions children just practiced and the action prompt. Show the action prompt to the children again, and explain that when they see this icon, it means "feed the baby."

6. End Make-Believe Play Practice by putting the prop(s), action prompt(s), and role prompts you used in the center where they belong while the children watch you. If your group is ready, have them turn and tell a friend what they might pretend to do if they are in that center tomorrow and see a certain action prompt. If it's more appropriate for your group, this is a great time for a theme-related finger play.

7. The next day, help children remember and talk about what you did in this Make-Believe Play Practice. "Remember when we fed the baby in the kitchen? What did we do next?..."

* At the beginning of each Make-Believe Play Block, help children remember yesterday's Make-Believe Play Practice. "Remember when we fed the baby in the living room? What did we do next? ..."

* As you lead the play practice, explain what you are doing and why. For example, "I hold the baby in my arms because babies cannot sit by themselves. ... You do that with me. Pick up your baby. ... I hold the bottle carefully like this, tipping it up just like this so the baby gets the milk but not a lot of air. ... You do that with me and feed your baby. Tip your bottle just a little just like this. ... Now, I burp the baby afterward because babies get bubbles in their tummies so burping makes them feel more comfortable. I talk to the baby while I'm burping because it makes the baby happy to hear the mommy or daddy's voice. I say things like, 'There, there, baby. Good job! You were hungry! Are you sleepy?' ... Now you do that with me."

* Demonstrate how to select and add new action prompts that show what can happen next. For example, "After we feed the baby, what could happen next? Let's look at what other action prompts we have. We could change the baby, we could put the baby to bed, we could pretend to give the baby a bath. What do you want to pretend is next today? ... Okay, let's pretend to change the baby. In the Science center, do you remember what we're pretending are diapers? Let me show you one..."

* For variety, walk through the actions you're demonstrating and how this action prompt could be used in a scenario in different centers. Pretend the baby wakes up from a nap

in the bedroom. Then pretend you're in the living room playing games and the baby cries because she's hungry, and you repeat the scenario there. This will help children remember that they can feed the baby as a part of their play in multiple centers, and the action prompt will be in each center to help them remember.
* Have children participate in selecting abstract objects that can be used as props. "Can a block become the cell phone? ... What about a plastic banana?" Help them pretend.

Flow of Scaffolding Make-Believe Play in Centers

Both teachers participate in scaffolding play, monitoring different centers at different times. Each engages in a cycle of:
• Observing
• Identifying children's play stages
• Identifying a play goal
• Scaffolding interaction
• Post-observation

1. _Observing_: Start by observing the children in one center at a time. At the beginning of the year, start with a different center each day. After you have a feel for the children and the stage of play, you may find that it is harder to get play started in one center than in others, so you should start your observation and support in this center. Sometimes it is the combination of children who end up at a particular center that dictates where you need to go to help get play started.

2. _Identify each child's stage of play:_ Use the description of play stages in the chart "Stages in a Child's Make-Believe Play," developed from the research of Vygotsky's students and colleagues (shown).

Stages in a Child's Make-Believe Play

	Stage 1 First Scripts	Stage 2 Roles in Action	Stage 3 Roles w/ Rules & Beg. Scenarios	Stage 4 Mature Roles, Planned Scenarios & Symbolic Props	Stage 5 Dramatization, Multiple Themes, Multiple Roles & Director's Play
Plan	Does not plan during play	Does not plan during play	Plans roles; actions are named prior to play	Plans each scenario in advance	Plans elaborate themes, scenarios, and complex roles. Spends more time planning than acting out the scenario
Roles	Does not have roles	Acts first and then decides on roles. No rules are revealed	Has roles with rules that can be violated	Has complex, multiple roles	Can play more than one role at a time. Roles have social relationships
Props	Plays with objects as objects	Plays w/ objects as props. Actions with a prop result in a role	Needs a prop for the role	Chooses symbolic and pretend props	Can pretend rather than actually have a prop. Does not need a prop to stay in the role. Objects can have roles
Extended Timeframe	Explores objects, but no play	Creates scenarios that last a few minutes	Creates scenarios that last 10–15 minutes	Creates scenarios that last 60 minutes or longer. With support can create scenarios that last over several days	Creates scenarios that last all day and over several days. Play can be interrupted and restarted
Language	Uses little language	Uses language to describe actions	Uses language to describe roles and actions	Uses language to describe roles and actions. Uses role speech	Uses language to delineate the scenario, roles, and action. Book language is incorporated into role speech
Scenario	Does not create a scenario. Can copy what the teacher does and says or will follow the teacher's directions if script is simple and repetitive	Creates a scenario that is stereotypical, with limited behaviors. Can incorporate modeled roles and actions into play with support	Plays familiar scripts fully. Accepts new script ideas	Plays a series of coordinated scenarios that change in response to previous ones or the desires of players. Describes unfolding scenario, roles, and actions	Plays a series of coordinated scenarios that change in response to previous ones or the desires of players. Uses themes from stories and literature

3. *Identify a scaffolding goal for the child and have a scaffolding interaction:* Using the stage of play as a guide, name a scaffolding goal for the child. Provide support based on the child's ZPD to reach that goal. This might include providing environmental supports (adding props, etc.), making suggestions from outside the play ("Can you ask Julio what he'd like to order?"), or intervening for a short period of time (playing a role to model a role and actions).

4. *Post-observation*: Step away from the child or group of children to observe and assess whether the play continues at the stage you supported, or if it will need further support on another day.

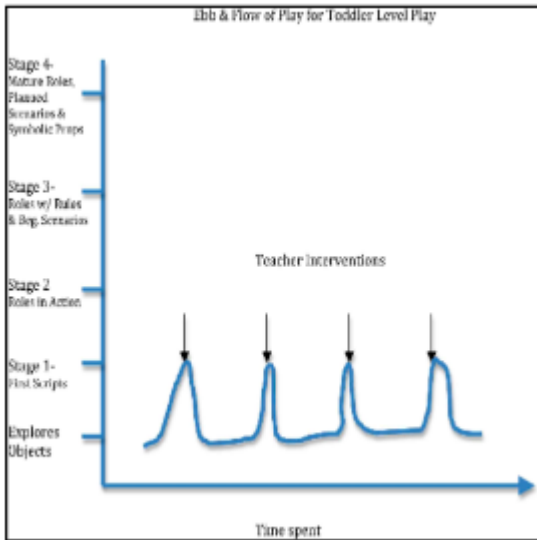5. *Move on* to another group of children to provide support.

Scaffolding Stage 1

Children receive coaching on simple quick roles/scripts

- Ebb & Flow of Play: Children entering Stage 1 still play like toddlers and need support to engage in

Stage 1 play with a simple script.

Ebb & Flow of Play for Toddler Level Play

Some children may still be at the Toddler stage, where they play with props as objects. In order to produce a scenario, children will need teacher support. They play at a higher stage only when the teacher is present. The play environment for children at this stage must allow them to explore objects and props. When the child picks up a prop, it provides an opportunity for the teacher to intervene with a simple play script. This in turn helps the child to engage in the play, and with other players. Teachers need to be aware of the degree to which the environment determines whether such children will develop self-regulation. Teachers should have brief, repeated interactions and stress the same script until children seem to be able to remember it with minimal prompting.

- Ebb & Flow of Play: Children playing at Stage 1 use simple scripts but do not use roles.

Ebb & Flow of Play Stage 1
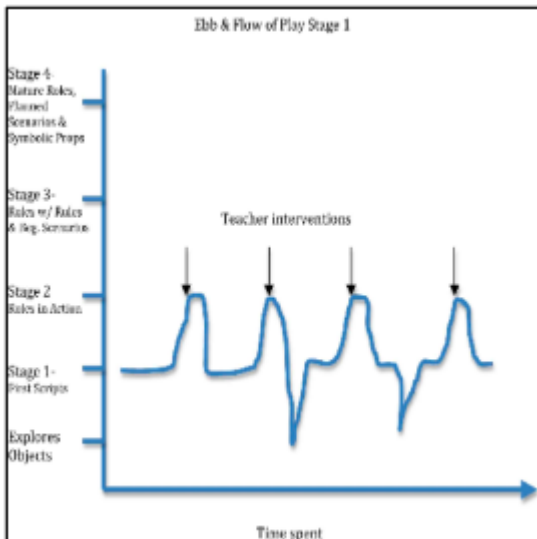
Children at this stage can sustain a simple script by themselves, repeating the action over and over again. The teacher's intervention is needed to get the child to play and sustain a role. Sometimes children may just explore objects, but they can return to a simple script without support. Teachers need to be aware of the importance of introducing a role and keep in mind that repeated interactions will be necessary until the child remembers the role and the actions associated with it.

Scaffolds for Stage 1
• *Provide sensory-motor materials for the child who is engaging in sensory-motor exploration.* This child will

need special props to stay in a center. The child may have a favorite set of play things that they like and will not stay in a center without them. Provide this support for the child in the center. Move those things to the center the child wants to play in if the child is attached to specific toys.

• *Connect actions with a role*. For young children, the action may come before the child understands that they are playing a role. For this reason, Elkonin suggested beginning with an action that can be tied to a role. Build on what the child is doing. Put a make-believe interpretation to the children's physical action, turning what the child is doing into a role: "Oh, I see, you're feeding the baby. Are you driving the truck?"

• *Use the action prompts you modeled in Make-Believe Play Practice to get the play going*. Hand the child the prop to see if they remember the actions you did in MBPP. If the child does, then mimic those actions. If the child does not, demonstrate them again and have the child do them after you. Model the action of feeding the baby and then hand the child the baby and the spoon.

• *Use props.* Use a role prop to help the child remember their role (e.g., an apron or something the child can wear) and use a simple action prop to help the child establish the role. Choose something like a plastic hammer, a baby doll, plates and spoons, etc., that help the child remember what to do in the role.

• *Give a child at this stage sensory-motor play toys*. It is unlikely that the child at this stage can continue the scenario you build together after you leave. Prior to leaving the center, engage the child with the sensory materials at the center or with a prop you know the child enjoys exploring. Don't worry if play disappears when you leave. However, if you can get the child to stay engaged when you leave, you increase the likelihood that the child will become incorporated into the group's play later on.

• *Prompt children at this stage to repeat your words as you model simple scripts*. For example, you might say to the child: "Ask the baby 'Are you hungry?' ... Now say, 'Are you hungry?'" Or if you ask the child, "Are you a mom?" and the child says yes, prompt her by telling her, "Say 'I'm a mommy.'"

• *Encourage children at this stage to take a role given to them by more mature players*. Children can benefit from playing with the higher-stage players even if only by following along.

Scaffolding Stage 2

Scaffolding Stage 2

Children receive coaching on roles in action (adding basic actions and language to familiar scripts)

- Ebb & Flow of Play: Children at Stage 2 have a lot of variability in their play and require less teacher intervention to stay in a role.
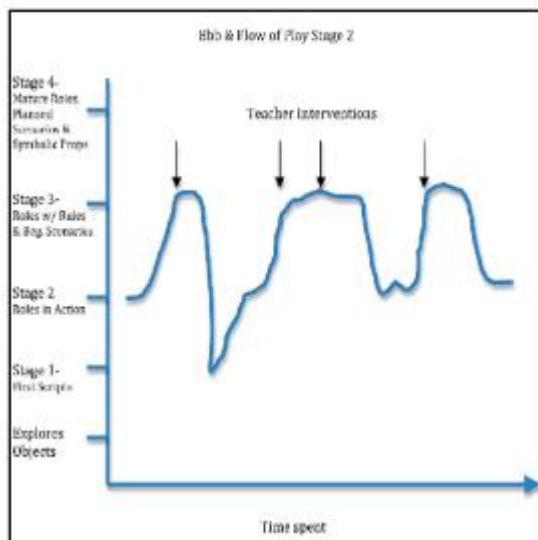
The teacher is still the primary intervention, but once a child identifies a role, and this role has a series of actions, the Stage 2 child can sustain the role for a short while without the teacher. Children can easily become distracted by the objects but can bring themselves back to the role on their own if they remember their role. Teacher interventions still have to be frequent, but the child now responds to other peers.

Scaffolds for Stage 2

• *Use role prompts to help a child remember the variety of roles they can play in a center and choose a role.* Help the child find a prop to wear to help them remember their role and make it clear to others what the role is.

• *Recruit a play mentor (a child at a higher stage of play) to help plan this child's play*. Help the mentor assign the roles. Facilitate the mentor's role by having the mentor plan the scenario and then help the Stage 2 child enact their part in that scenario. Help them use the action prompts to plan what to do first.

• *Take the child's actions and turn them into a role by identifying the role the child is playing*. Further stabilize the role by giving the child a role prop so the child can stay in the role and continue the actions they are already doing or add more and more actions: "Oh, I see you're a dad in the kitchen. Should you be holding a spatula? Now what does a dad do in the kitchen with a spatula?"

• *Use the action prompts you modeled in Make-Believe Play Practice to get the play going*. Hand the child the prop to see if they remember the actions you did in MBPP. Children at this stage of play usually remember what to do with the prop. Adding basic actions and language is your goal to deepen engagement at this stage.

• *Extend the role*. Say, "What else does a parent do?" to the child who is being a parent. If the child does not know, give suggestions or engage players at higher stages in making suggestions. Help the child look through other action prompts.

• *Model another role that might interact with the child's role*. Take the more passive position, and have the child act and talk to you. Prompt the child's interaction: "So I'm a sister and I am hungry. You're my parent. What do you do and say?"

• *Directly address disagreements over roles*. Ask children who they are and help them clarify which behaviors go with which roles. Many times children have forgotten their role. Use the Play Plan they made to remind them of the role they chose. Use role prompts to help them remember all the available roles. When children argue over objects at this stage, it is because they are no longer engaging in dramatic play. Do not focus on the turn-taking aspect of the situation.

• *Focus on the roles and props, which will support deep engagement*. Try to find a solution that leaves the children still playing with each other in a play scenario with roles. For example, another prop could be equally useful for a particular role and could work in the make-believe play scenario. Give suggestions about how this scenario would work and stay there to help the children enact the new scenario.

• *Encourage dialogue between two children*. "So Azanah, tell Jerome who you are and what you are doing."

• *Support scenario development*. Because children at this stage have uncoordinated roles, they need a great deal of help visualizing a scenario. Teachers usually have to help children plan the scenario and then help the children see how their roles fit into the scenario. The teacher will have to supervise two action prompt series of actions and interactions, if possible. That is, the teacher should plan and act out one small scenario (e.g., making dinner) and then plan and act out of the next scenario that evolves out of the first one (eating dinner). Teachers may briefly take on a role to support the scenario. You should make sure you talk aloud about what you are doing and the role you are playing.

Scaffolding Stage 3

Scaffolding Stage 3

Children receive coaching on extending roles/language, adding more children to play, making/using props, linking scripts

- Ebb & Flow of Play: At Stage 3, children play in a role for longer periods of time, and teacher interventions have a more sustained effect, even after the teacher leaves.
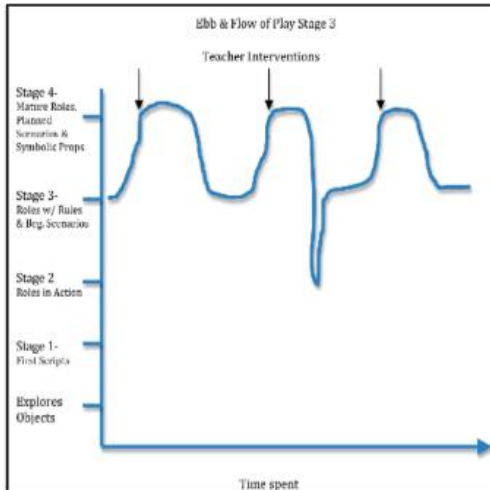
Teachers often find that they do not have to intervene as often at this stage. When they do, their intervention influences children's play even after they leave. Although children can become distracted and may revert to playing with objects and simple scripts, this happens infrequently. You may notice this when you change a theme and the new objects are just too enticing and the scenario takes effort to remember. Children at Stage 3 readily accept support from other players and do not need teacher encouragement to do so. When there is a mixed group of Stage 3 and 4 players, teachers play a less central role in getting the play going.

Scaffolds for Stage 3

• *Scaffold more indirectly, standing outside of the play and making suggestions*. Do this, instead of directing the play by participating and talking aloud about your role. For example, ask children what else might happen, or ask them who they are and what is happening.

• *Encourage peers to plan and monitor their play*. This is the stage of other- regulation, where children spend quite a bit of the play time telling each other that they are not playing the role correctly. Because children want to remain in the play, they will adjust their behavior to the limits of the role and respond to the other-regulation.

• *Use the Play Plan to troubleshoot problems and to restart the play*. By this stage, children identify the role and actions when they Play Plan. If you anticipate a problem with an especially enticing prop, have children discuss how they will handle this before they go to the center. You can handle arguments by asking, "Was that your plan?" Model how children who are in a disagreement can ask each other, "What was your plan?" Often children will just stop and start over again.

• *Help children connect their roles with the roles and scenarios of other children*. Scenarios should evolve; one set of actions is the basis for another. There should be definite social relationships being played out. Help children organize action prompts into a simple script in which roles interact with one another.

• *Help children begin to make their own props to supplement their actions and roles*. Encourage substitution of one prop for another. If children don't have a phone, show them how they might use a block instead or their fingers.

• *Encourage the use of role speech*. Children should begin to adopt the tone of voice and the vocabulary of the role they are playing. Children at this stage need a lot of support to produce role speech. Role speech plays an important part in helping children to stay in a role and self-regulate. It helps children use "adult" vocabulary in their play. Make sure you demonstrate role speech because this will have a significant effect on its use and

support deep engagement in play.

• *Emphasize the scenario problem and encourage children to add on to the scenario*. Take the scenario that the children have developed and ask questions: "What can happen next? What else can happen?" Encourage children to create new action prompts or combine the current ones in new ways.

• *Work hard to get children to include everyone in the play scenario*. Because children at this stage are not playing at the most mature stage, it is more difficult for them to include children who are less mature. Some children will express a preference for a specific child or want to exclude another. If this happens, make sure the children are having positive interactions during the learning games and activities. Friendships at this stage are defined as the person you are playing with. Children may not want to play with each other because they do not know each other. Facilitate play by helping children interact. It will not be enough to have them in the same center.

• *Support "decontextualized speech"; that is, talking together in the center about the roles and scenarios before play*. Children at this stage still do not spend sufficient time talking about the roles and scenarios before they start. You will have to facilitate this even though children can play with each other for the entire playtime.

Scaffolding Stage 4

Scaffolding Stage 4

Children receive coaching on creating complex planned scenarios, usingsymbolic props, playing more than one role at a time, and using role speech when switching roles

- Ebb & Flow of Play: At Stage 4, children are deeply engaged players who immerse themselves in the role, create evolving, complex scenarios, and use symbolic props.
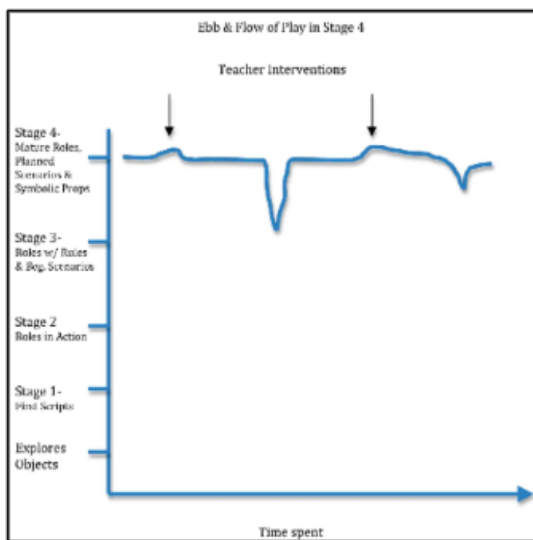
Teachers can enrich and enliven play by adding materials and helping children brainstorm plot additions. Teacher interventions are for enrichment only. Teachers need to take care not to disrupt children's play too often as it can be distracting. Children at this stage seldom revert to lower stages of play, and if this happens, they easily restart the play on their own. Children are so immersed in their role that they can leave the center and return, still in the role, or pick up again in the same place the next day.

Scaffolds for Stage 4

• *Your primary task is to encourage children to plan with one another*. Children should be discussing Play Plans either formally—encouraged by you, as they play together in a center—or informally among themselves while on the playground or during snack. Plans can include more complex themes and multiple roles. Children need more ideas about the roles they can play. You should be introducing and suggesting new roles, adding on to the roles that a child has already identified.

• *Encourage role speech and the use of language to plan and orchestrate complex scenario*. You should hear children talking about what they will play before they do it as scenarios evolve. Children should use adult vocabulary when playing an adult role. Although you should not interrupt play, every once in a while, check on the child's understanding of what they are doing, the relationships between the players, and the social problems that are occurring.

• *Help children see how they can play more than one role in a scenario at the same time, defining each role through role speech*. They can switch between roles by telling other children their plans.

• *Provide support and materials for prop-making*. Children should be making and inventing props on their own. Play should no longer be bound by tangible props; some props should be imaginary, defined by language ("I have a hammer and nails so I can make you a dog house!"). You should provide materials and make occasional suggestions, but children themselves should do most of this.

• *Remember, unconstructed materials are best; children are practicing imagining, not prop construction*. As children create new action prompts, help them plan what props they'll need to make for the actions the prompt represents.

• *Plan themes for children at this stage that encompass more than one center, and allow children to play the same role in different parts of the room.* Children no longer need the center to remind them of their play scenario and role. Their engagement is deep enough that they can now leave the center and stay in the role. They can pick up their play where it took off yesterday. They can add on to scenarios leading to deep engagement for 40–60 minutes or more.

• *Support the development of complex themes that allow for varying social relationships, scenario problems, and emotional terrain to become the focus of play*. Listen to what the children are doing on their own, and help them extend and deepen the play. Encourage them to play out different solutions to problems. Stress the problems that might motivate a specific theme and how different people in the scenario interact with one another. Each scenario should build on what happened in the previous interaction.

• *Encourage children at this stage to include players who are at lower stages in their play and to be a mentor to other children (or "play directors")*. At this stage, children are usually helpful and enjoy directing the play of others but may not know how to tell other children what to do. You can facilitate this by supporting the interaction and coaching how to support the lower-stage child's participation.

Increasing the Challenge of Make-Believe Play Practice

• Have children brainstorm with you and introduce new actions that you'll represent by drawing on a blank action prompt card. Use this card to practice and help children think about the actions it represents.

• Shift the focus of Make-Believe Play Practice to other aspects of high-level make-believe play: helping children learn how to exchange roles, know when a scenario is over, introduce new story problems, use more role speech, etc.

• Use the Story Problem Play Theme Cards to introduce new story problems.

• Eventually, Make-Believe Play Practice will include children exchanging and playing different roles. Children will practice and interact directly with Make-Believe Play Practice buddies after watching a demonstration.

• Once children get the basic scenario down so that when you initiate it, they continue it without teacher support, extend the actions associated with the action prompt. Explain that there are other things that can happen when you feed the baby. Add on to the original script. Tell the children, "You have to fill the bottle."

Open the bottle, pretend to fill it, and then repeat the previous actions (holding the baby in your arms, feeding the baby, and burping the baby), having the children help you to remember them and practice with you. Prompt children to think of another action. You want children to understand that the action prompt is designed to remind them to feed the baby, but they may think of other things to add.

• As children get better at this, you will introduce a more complex series of actions to associate with action prompts cards in future Make-Believe Play Practices. For example, feeding the baby could evolve to include measuring and mixing formula, warming the milk, testing its temperature on your arm, feeding and burping the baby, and perhaps giving the baby some cereal or fruit as well and even flying the food on the spoon like an airplane into the baby's mouth.

• For children at make-believe stages 4 and 5, Make-Believe Play Practice can target using an abstract prop (block; piece of paper) to represent more than one thing; gestures can represent props (index and pinkie fingers extended can make a "phone"), etc.

Enduring Understandings

Make-Believe Play

For children to:

- Develop mature make-believe play that is planned in advance, has roles with complex actions and role speech, uses symbolic props, lasts for an extended period of time, and is composed of complex evolving scenarios that explore social relationships and solve the problems in the scenarios
- Practice being regulated by others, regulating others, and being self-regulated
- Use decontextualized speech as they plan their play
- Learn how to become deeply engaged in play so they can extend play over many hours and days
- Practice social problem solving
- Develop creativity in innovating props, scenario problems, and resolutions
- Explore scenarios that build on personal experiences and expand on these, as well as scenarios that are far from their own lives, neighborhoods, and families
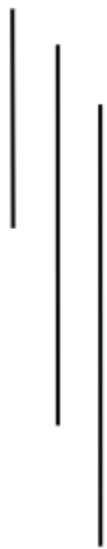- Learn new roles and how to incorporate these with familiar roles and scenarios

Make-Believe Play Practice

For children to:

- Engage in intentional make-believe play
- Build knowledge of roles, role speech, scenarios, props, and how to use props
- Use mediator cards to prompt and sequence actions and connect roles with actions
- Use imagination to invent props, use objects symbolically in different ways, and expand play themes
- Strengthen oral language skills and build vocabulary

Summative Assessment and/or Summative Criteria

Make-Believe Play:

Ages 3 4 5	Make-Believe Play in Make-Believe Play Practice
	— Does not attend. If given a prop, plays with the object as an object
	— Imitates part of scenario during MBPP. Looks at other children and does what they do. Mimics the teacher
	— Pretends during MBPP for part of scenario. Repeats those actions but is not able to add things. Loses attention midway
	— Pretends during MBPP for entire scenario. Has to be prompted to use private speech/role speech. Uses action prompts in the center when prompted
	— Pretends during MBPP and uses private speech/role speech for simple scenarios. Loses attention after known scenario is played. Uses action prompts when playing in the center on own
	— Pretends during MBPP and uses private speech/role speech for simple scenarios. Can add onto the scenario
	— Remembers series of actions represented by action prompts and can independently use action prompts as a tool to remember and plan actions together during play
	— Invents new actions easily. Uses action prompts to plan play and prompt peers about what they can do. Makes own prompts

Ages 3 4 5	Symbolic Use of Props in Make-Believe Play Practice
	— Can play only if concrete prop looks exactly like the real thing
	— Can play with object substitute that closely resembles the real thing (block as a phone but not as a rocket ship)
	— Can play with any object substitute
	— Can play using gesture to substitute for object
	— Can play without a prop using a description of object and minimal gestures to indicate the prop ("finger phone")

Ages 3 4 5	Oral Language in Make-Believe Play Practice
	— Points or gestures along with other children but does not talk
	— Repeats some of language used with gestures
	— Talks along with the group, repeating role speech with appropriate gestures
	— Uses role speech and gestures independently as if playing the role
	— Adds onto the role and actions started in the group, extending or creating a new scenario
	— Uses role speech, actions, and scenario during center play

Ages 3 4 5	Self-Regulation in Make-Believe Play Practice
	— Does not attend. If given a prop, plays with the object as an object — Imitates part of scenario during MBPP. Looks at other children and does what they do. Mimics the teacher — Pretends during MBPP for part of scenario. Repeats those actions but is not able to add things. Loses attention midway — Pretends during MBPP for entire scenario. Has to be prompted to use private speech/role speech. Uses action prompts in the center when prompted — Pretends during MBPP and uses private speech/role speech for simple scenarios

Make-Believe Play Practice:

Ages 3 4 5	Make-Believe Play in Make-Believe Play Practice
	— Does not attend. If given a prop, plays with the object as an object — Imitates part of scenario during MBPP. Looks at other children and does what they do. Mimics the teacher — Pretends during MBPP for part of scenario. Repeats those actions but is not able to add things. Loses attention midway — Pretends during MBPP for entire scenario. Has to be prompted to use private speech/role speech. Uses action prompts in the center when prompted — Pretends during MBPP and uses private speech/role speech for simple scenarios. Loses attention after known scenario is played. Uses action prompts when playing in the center on own — Pretends during MBPP and uses private speech/role speech for simple scenarios. Can add onto the scenario — Remembers series of actions represented by action prompts and can independently use action prompts as a tool to remember and plan actions together during play — Invents new actions easily. Uses action prompts to plan play and prompt peers about what they can do. Makes own prompts

Ages 3 4 5	Symbolic Use of Props in Make-Believe Play Practice
	— Can play only if concrete prop looks exactly like the real thing — Can play with object substitute that closely resembles the real thing (block as a phone but not as a rocket ship) — Can play with any object substitute — Can play using gesture to substitute for object — Can play without a prop using a description of object and minimal gestures to indicate the prop ("finger phone")

Ages 3 4 5	Oral Language in Make-Believe Play Practice
	— Points or gestures along with other children but does not talk — Repeats some of language used with gestures — Talks along with the group, repeating role speech with appropriate gestures — Uses role speech and gestures independently as if playing the role — Adds onto the role and actions started in the group, extending or creating a new scenario — Uses role speech, actions, and scenario during center play

Ages 3 4 5	Self-Regulation in Make-Believe Play Practice
	— Does not attend. If given a prop, plays with the object as an object — Imitates part of scenario during MBPP. Looks at other children and does what they do. Mimics the teacher — Pretends during MBPP for part of scenario. Repeats those actions but is not able to add things. Loses attention midway — Pretends during MBPP for entire scenario. Has to be prompted to use private speech/role speech. Uses action prompts in the center when prompted — Pretends during MBPP and uses private speech/role speech for simple scenarios

Suggested Modifications for Special Education, ELL and Gifted Students

Make-Believe Play

• It is very important that the children engage in and participate as fully as possible in the Make-Believe Play with peers from a range of play levels. Higher-stage children are often drawn to peers who also play at the higher stages. Because there will be classmates who will be lower-stage players, it will be important to create ways for these very different players to interact. Be ready to create roles for the children at the lowest stage to help them participate in the play. You may also have to facilitate the higher-stage children in peer scaffolding. Their participation may only be fleeting, but it is important. Establishing a culture of peer scaffolding will mean that higher-level players naturally include and coach the lower-level players.

• If you have dual-language learners in your group, you may find that children begin to prefer to play with children who speak their home language. You have to work doubly hard to get children to communicate with one another across languages so that you don't have a divide in the classroom. Of course, it is easier to create scenarios when someone understands what you say, but you don't want children excluded from the play.

* Note: Gesture and action interaction is the start of play interaction. Teach children to not be afraid to try and communicate with one another using gestures and one or two words in whatever language gets the point across.

• Children with special needs will need extra support to play. It will take time for children with special needs to begin to play with roles, so teachers need to be patient and work on play a little every day. Make-Believe Play Practice is especially important in helping children with special needs learn the scenarios and scripts they will use in the play center.

   • Language delays have a significant effect on play because children cannot plan with other children or

engage in the role speech that keeps the play scenario moving forward.
- Children with behavior problems will need support entering play, participating in play, and handling disagreement in a positive way.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Make-Believe Play Practice

• Some children who are at very low levels of play will continue to need you to help them use gestures.
• For classrooms with children who need more support, continue using a tangible prop in Make-Believe Play Practice for children who need it. For the restaurant theme, you might want to have folded paper "menus," some counters for "money," or plates with plastic food.
• If you have dual-language learners in your classroom, use both English and the child's home language to help the child understand what the actions mean. Use pictures from home of the children and their families interacting in different rooms to build the background knowledge necessary to create good play scripts. Encourage private speech in both languages.
• For children with language delays, practicing role speech will often support the development of more mature grammatical structures because the roles that children are playing are those of adults with mature speech patterns. Use the role and action prompts to prompt not only children's acting of the role but also their use of role speech.
• If children do the actions with you the first time or two and then lose interest, your Make-Believe Play Practice focus is too simple. Increase the number of actions or put up two action prompts. Shift the focus to interactions between roles. For example, you can pretend to be the customer and the children are the waiters, and you practice what you both say and do in the scenario. Keep the activity moving along. It should be fun. Children should laugh and enjoy themselves.
• By late fall, most children are able to participate fully in Make-Believe Play Practice. The least mature players may not use precise and obvious gestures and actions, but they will gesture enough so that you will know if they understand the role and action prompts. If you have a large percentage of atypically developing children, you will need to repeat some of the actions in the center context so that children will generalize from one setting (Make-Believe Play Practice in Large Group) to the actual center.
• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify
skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Resources

Tools of the Mind Curricular Materials

[Supporting Make-believe Play at Home](#)

[Let's Pretend Books flyer](#)

[Let's Pretend Books flyer- Spanish](#)

[Intentional Questioning](#)

Standards

AL.PK.9.1.2	Show curiosity and initiative by choosing to explore a variety of activities and experiences with a willingness to try new challenges (e.g., choosing harder and harder puzzles).
AL.PK.9.1.3	Focus attention on tasks and experiences, despite interruptions or distractions (e.g., working hard on a drawing even when children nearby are playing a game).
AL.PK.9.1.4	Show persistence when faced with challenging tasks and uncertainty, seeking and accepting help when appropriate (e.g., saying to a friend, 'This is hard. Can you help me figure it out?).
AL.PK.9.2	Children show creativity and imagination.
AL.PK.9.2.2	Use the imagination to solve problems, use materials, role play, write stories, move the body, or create works of art (e.g., create pretend spinach out of torn green construction paper to serve for dinner).
AL.PK.9.3.1	Recognize a problem and describe or demonstrate ways to solve it alone or with others (e.g., "I know! Jamar and I can work together to clean off the table so that we can have a place to eat lunch.")
SED.PK.0.1.1	Express individuality by making independent decisions about which materials to use.
SED.PK.0.1.3	Actively engage in activities and interactions with teachers and peers.
SED.PK.0.1.4	Discuss their own actions and efforts.
SED.PK.0.2.1	Make independent choices and plans from a broad range of diverse interest centers.
SED.PK.0.2.2	Demonstrate self-help skills (e.g., clean up, pour juice, use soap when washing hands, put away belongings).
SED.PK.0.2.3	Move through classroom routines and activities with minimal teacher direction and transition easily from one activity to the next.
SED.PK.0.2.4	Attend to tasks for a period of time.
SED.PK.0.5.1	Play independently and cooperatively in pairs and small groups.
SED.PK.0.5.2	Engage in pretend play.
SED.PK.0.5.3	Demonstrate how to enter into play when a group of children are already involved in play.
SED.PK.0.5.4	Take turns.
SED.PK.0.5.5	Demonstrate understanding the concept of sharing by attempting to share.
SFLS.PK.6.2.1	Demonstrate understanding of rules by following most classroom routines.

Essential Questions
Starting open-ended questions:

1. What would happen if...

2. What do you think about...

3. I wonder...

4. In what way...

5. Tell me about...

6. How can we...

7. What would you do...

8. How did you...

9. Why do you think…

After asking your child an open-ended question, allow quiet time for them to think before responding to your comment or question. Young children often need extra time to decide what to say and how to say it.

Diversity and Cultural Awareness
Scaffolding Make-Believe Play

• Support children in using vocabulary from their peers' home languages in make-believe play role speech. Greetings, exclamations, expressions of love and comfort, *please*, *thank you*, *you're welcome* and *I'm sorry* are all great words to learn in multiple languages. See eTools for a Spanish phrase book, and use it as a model to create your own for the other languages in your classroom.
• Keep it local and meaningful. Lower level players need play themes that are very close to their lives and experiences. Customizing the play theme to your community and children's real life experiences will support the development of play and self- regulation.
• Take photos of people and places in your community, including experts who have visited your class. Use these to scaffold play. For example, if a dog walker visited you to share about their work, you might show a child in the Pet/Vet Theme Obedience School center a photo of the visitor to scaffold their play. "Remember when Maria visited us and showed us the steps for teaching a dog to heel? Here's a picture of the first step..."
Make-Believe Play Practice
• Make-Believe Play Practice provides a daily opportunity to build children's awareness of diversity, both within your classroom and in your broader community.

   • Use vocabulary from children's home languages in play. Make-Believe Play Practice is a great time to introduce everyday vocabulary from a variety of languages (e.g., parent, baby, kitchen, bathroom,

hello, goodbye, help, thank you, etc.).
- Bring awareness of gender roles and stereotypes into classroom learning. A doctor or nurse might be any gender; the work and tasks parents do need not be gendered (e.g., moms mow lawns and repair cars, dads make lunches and brush their children's hair, etc.). Help children understand that the work people do and how they live their lives is not limited or defined by gender.
- Invite parents and other community members to come into your classroom as "experts" to share about their jobs, holiday they celebrate, foods they prepare, etc.
- See the Tools of the Mind Recommended Book List on eTools featuring titles that reflect diversity and build cultural awareness for play themes and Story Labs.
- Did you know?— Tools of the Mind's Let's Pretend eBook series was designed to feature diverse children, adults and communities. In Year 1 Professional Development Workshop 4, teachers learn how to make their own Let's Pretend eBooks, customized for their classroom, using photos from their community.

Opening Group

Content Area: **Sample Content Area**
Course(s):
Time Period:
Length: **Full Year Component**
Status: **Published**

Opening Group Overview

Opening Group is a whole group activity on the carpet where the teacher prepares students for the day. It typically lasts 15-20 minutes daily.

Attention Focusing and Refocusing Activities

Fingerplays are used in Tools of the Mind as the primary way to gather and focus children's attention prior to starting a Tools activity, during transitions between activities, and whenever children's self-regulation needs a boost. Teachers begin the fingerplay, and the momentum sweeps children into attending and being self-regulated. In addition to teaching self-regulation, fingerplays, songs, and chants have the added advantage of teaching rhyme and supporting the development of fine motor skills.

Sometimes we need to quickly refocus children's attention without interrupting an activity. Attention Refocusing Activities are tools to swiftly bring back children's attention throughout the day.

As the year goes on, Attention Focusing activities become more complex, including fingerplays that require partners. A variety of Attention Refocusing activities are used across the year.

Fingerplays, poems, songs, and rhymes/chants serve both a self-regulatory and a literacy function in Tools. Most important, they help children practice working memory and to regulate their behavior by matching gestures and actions to words. They are often the first things that children memorize, and so they help

children learn at the easiest, most basic level, learning by repetition. By adding gestures to what the child is memorizing, you make more demands on working memory and you add self-regulation demands, as well. Once children have memorized the fingerplay or chant, producing that memory on demand is another important skill that children need to practice as their memories are beginning to develop further. For Vygotskians, remembering is an important skill that must be practiced just like any other cognitive skill. In many preschool programs, this is just a part of the program and they are used in an unintentional way. That is, they are not used sufficiently to help children practice self-regulation. Teachers need to use them to intentionally cause self-regulated behavior at the beginning and end of all activities. Fingerplays, songs, and chants are also great practice for rhyming, a part of phonemic awareness. By remembering the rhyme and repeating the rhyming part, children learn (or "catch") the concept of *rhyme*.

Time Block

Attention Focusing activities occur in Opening and Closing Group and can be used in any time block. They are typically used multiple times in a day. Attention Refocusing activities are strategies teachers use as needed to quickly regather attention when it has been lost.

Structure of Attention Focusing

Materials
• Fingerplays, poems, and songs (see videos on Tools of the Mind Portal for ideas)
• Fingerplays and Songs We Know icon cards and chart— Simply-drawn icon cards representing current fingerplays (sample shown)
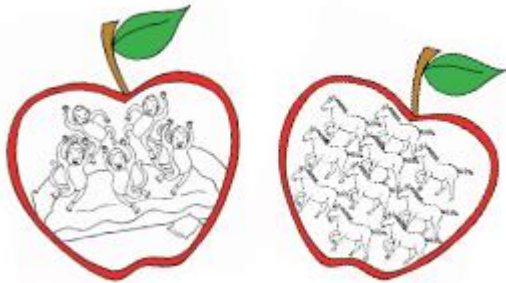
Flow of Attention Focusing

1. Simply begin a fingerplay, and children will join in.
2. Say or sing the fingerplay multiple times, making a change each time you repeat. You might make your voice loud, then quiet, and even silent; fast or slow in tempo; high or low in pitch. Whatever volume, pace or pitch you choose, always use gesture.
3. The final time you sing the fingerplay, end with a pace and volume that will help move the children calmly into the next activity.
* While one teacher leads the fingerplay, the other teacher circulates as needed, supporting children's full participation in both the gestures and language of the rhyme or song. This teacher can sit beside children

who need extra support.
* Repetition in the beginning is important. Repetition several times the same day and several days in a row helps children learn new fingerplays. Introduce a few at a time until children know them well.

Flow of Attention Refocusing

1. When children have lost focus during an activity, say "Let's do something to help us refocus our attention so we can finish this activity."
2. Begin leading one of the Attention Refocusing activities. For example, in Smell the Flower, Blow Out the Candle, everyone puts up one finger. Pretend it is a flower and take a deep breath, smelling the flower through your nose like this. Now let's pretend it's a candle and blow it out.
3. Repeat 1-2 times, then return to the activity.

Attention Refocusing Strategy Ideas

Fill Up the Balloon: Children put their arms out to their sides, away from their bodies. They raise and lower their arms as they say with you, "Fill up the balloon, then let it out. Fill up the balloon, then let it out..." Do this two or three times.

Smell the Flower, Blow Out the Candle: This is a quick breathing exercise. Everyone holds up an index finger to represent both the flower and the candle. Tell the children to smell the flower (take a long, deep breath in through your nose), and blow out the candle (blow out through your mouth). Do this once or twice to refocus attention. Eventually, you will just hold up a finger to signal the action, and the children will join in.

Count Down: Count down from five, encouraging children to join in and cueing them that when they reach one, it's time to listen. Hold up five fingers and fold them down one by one.

Wiggle Wiggle Stop: Have children stand up and wiggle their bodies while they say "Wiggle, wiggle, wiggle...." When you say "Stop!" everyone freezes. Repeat a few times.
No materials needed.

Do What I Do

Do What I Do-Do It With Me

1. Make a set of repeating hand movements and have children follow along. For example, clap your hands together once and then pat your knees once. Say "clap, knee" as you do the motions. Then say to children, "Do what I do." The children catch on to what you're doing and go through the motions with you, using the private speech.
2. As soon as most of the children can follow along, change the pattern.
3. Repeat these steps a few times, until you have gathered children's attention, then move right into the next activity.

Do What I Do-My Turn Your Turn

Instead of children doing the actions at the same time you do them, you do a series of actions, then children repeat the same series of actions on their own, without your guidance.
1. Do a series of actions, using language and gesture. For example, you might pat the top of your head twice, then pull your ears once, saying "Pat, pat, pull."
2. The children repeat your actions and language while you silently watch them.
3. Repeat the same series of actions a couple of times, until all children have caught on.

4. Change the series of actions, and repeat the steps above.
Increasing the Challenge of Do What I Do
• Increase the number of actions in the series.
• Increase the difficulty of the vocabulary used (e.g., "scalp" instead of head, "shin" instead of leg).
• (My Turn Your Turn variation only): Have children do the actions in the reverse order you do them. For example, if you clap and snap, they snap and clap.

Increasing the Challenge of Attention Focusing

• After the children are familiar with a fingerplay, fade out your voice to be sure all children are participating and to increase their independence in saying the words. You can also decrease your modeling of the gestures or actions in fingerplays to see if children remember them on their own.
• As the year goes on and children develop stronger self-regulation, introduce partner fingerplays. Children sit facing a partner and synchronize their movements in clapping games like "Double Double" and "A Sailor Went to Sea." Self-regulation demands are much higher with a partner!

Increasing the Challenge of Attention Refocusing

• Be intentional in not repeating these too frequently and varying the ones you use; too frequent repetition of the same one lowers engagement.
• Add more actions to Refocusing Activities like Wiggle Wiggle Stop to increase the challenge (wiggle wiggle, turn, jump, squat!).
• Count down can be counting down from a higher number or skip counting up by 10s to 100, etc.

Classroom Rules

In the fall, teachers and children work together to create rules to help the classroom work. Then throughout the year, rules are reviewed and revisited *before* activities as needed. Establishing rules in a preschool classroom is important for many reasons. Rules help ensure physical safety of children by setting boundaries and guidelines for behavior. This promotes a secure environment for learning and play. Rules provide consistency and structure for young children, helping them understand what is expected of them and what behavior is appropriate in different situations. This can reduce anxiety and create a predictable environment that supports learning. Rules often focus on social interactions, such as taking turns, sharing, and showing respect for others. By following classroom rules, children learn important social skills that will benefit them both in and out of the classroom. Clear and consistent rules can help reinforce positive behavior and discourage negative behavior. When children understand the rules and see them consistently enforced, they are more likely to exhibit positive behaviors and make good choices. Learning to follow rules in preschool sets a foundation for future education. Children develop self-regulation and self-control skills that are essential for success in school and later in life.

This activity provides an opportunity to practice self-regulation by following a "plan" created by the child in collaboration with the other children and the teacher in the classroom. It supports the development of the classroom as a social community where children are active participants in a meaningful social context. It

gives the children another situation to see what rules are and why the rules are needed — that is, to regulate social interactions.

Time Block

At the start of the year, Classroom Rules are created in Opening Group. Intentionally revisiting the rules before an activity will help children plan their behavior and remember the rules. Eventually, many children will internalize the rules and be able to follow them consistently. Across the year, in Share the News, children might discuss the rules and tell a friend an example of following a rule.

Structure of Creating and Using Classroom Rules

Creating Classroom Rules:
Materials
• Chart paper
• Marker
Classroom Setup and Teacher Preparation
• In advance, think of no more than five rules you'll support the children in generating.
• Have the children sit on the rug for this activity.
Using Classroom Rules:
Materials:
• Completed Rules Chart

Flow of Creating Classroom Rules

1. Introduce the idea of rules and give some concrete examples (it is easier for preschool children to remember and follow a rule such as "Wait your turn" than "Always respect others").
2. Ask the children what rules they think are important.
3. Pose scenarios that often happen in classrooms, and have children generate rules to help solve those

problems.

4. Write the rules using Scaffolded Writing on chart paper (or on a whiteboard until the rules can be transferred to a permanent spot).

5. Draw an icon beside each rule to represent it.

6. State the rules in terms of what to do—not what not to do.

7. Read the rules together with the children.

* Keep your list to five rules or fewer. Children can only remember a few rules at a time.

* Review what the icons mean to help children internalize the rules.

Flow of Using Classroom Rules

1. Help children internalize the rules by rereading the rules together, referring to the rules often, and having children tell each other the rules.

2. Before activities when children often forget the rules (for example, before heading to lunch when children might forget to use walking feet), remind them of the rules to help them anticipate and practice. Don't remind children after they have violated the rules, as it does not support self-regulation development. Reminders ahead of time help children practice, which fosters self-regulation.

3. Facilitate other-regulation to help children learn the rules. Ask a child struggling to follow a rule, "Could you remind Jayden what our rule is about looking and listening?" If children tell you another child has broken a rule, this is a positive developmental sign that the child is internalizing the rules. Acknowledge rule violations and then move on: "You're right, our rule is walking feet in the classroom. We're all working on following our rules."

Increasing the Challenge of Classroom Rules

• Include conversations about rules in Share the News. For example, ask children to share an example of a time they followed one of the rules. They might also share some rules they have at home, in the car, in the grocery store, etc.

• Help children remember when other teachers' rules differ from yours. Before the children go to the other room or begin working with the other teacher, prompt them to tell you the rules that are different. A common rule other teachers will have is to raise one's hand before speaking. Introduce the Raise Your Hand mediator and bring it to classrooms in which hand raising is a rule.

Raise your hand.

Message of the Day

Message of the Day is a large group activity in which the teacher models the planning and then the writing and reading of a sentence using Scaffolded Writing. The message each day is composed by the teacher, and deliberately crafted to gradually introduce literacy concepts and conventions. Message of the Day exposes children to these concepts, which they then practice applying in writing activities at other times in the day.

Message of the Day supports the development of Scaffolded Writing by demonstrating the next concept or skill within the ZPD of the children in the classroom. It is intentionally calibrated to be just above what the children can do independently and is designed to support a variety of developmental levels simultaneously. The purpose of Message of the Day is to expose children to literacy concepts as you model the process. Over time, children begin to internalize these literacy concepts and apply them to their independent writing. Since all of the children are at different places in their learning, you can target the concepts each individual child needs in your one-on-one exchanges during Scaffolded Writing, when a child is focusing on practicing that skill. Message of the Day builds on the Vygotskian tactic of shared activity so that the group provides support for children who do not quite understand that day's target concept. When you use Shared Activity, children all practice the private speech they will need to internalize to guide how to find and identify the correct answer. To capitalize on shared activity, children must respond all together (choral response), and you repeat and confirm the correct response. Because the message activity is done every day, children internalize the modeled skills gradually. Errors are expected and embraced as part of the learning process. What is taught in Message of the Day is informed both by the developmental progression of literacy concepts presented in this chapter, as well as what children's own writing tells you about their literacy development. For example, when children begin to draw too many lines in their Play Plans or other Scaffolded Writing activities, you will point out during Message of the Day that "we check if we have enough lines by matching the lines to the words we say." In this way, Message of the Day works hand-in-hand with children's Scaffolded Writing. Let the development of children in the classroom at the highest levels in their Scaffolded Writing lead the development of their peers. When one or two children show an understanding of a concept in their writing, use Message of the Day to either reinforce their understanding or to scaffold the next level of their development. Periodically you may cycle back to target earlier concepts as you reflect on the skills on the edge of emergence in children's individual Scaffolded Writing. Because the writing process is so new to most entering children, we are careful to emphasize only one or two new literacy concepts at a time and follow children's

developmental lead. Emphasis on letters or letter sounds is not appropriate until after children grasp the concept of word and voice-to-print match. The Tools of the Mind literacy developmental trajectory, developed over years of work, aligns the teaching of concepts with the way children develop, forming a seamless relationship between concepts, Tools teachers' scaffolding, and the children's learning.

Time Block

Message of the Day occurs during Opening Group.

Structure of Message of the Day

Materials
• Large whiteboard
• Whiteboard marker

• Large Consonant and Vowel Sound Maps

<u>Classroom Setup and Teacher Preparation</u>

• Children will sit on the floor in a group. They all need to be able to see the board clearly while the teacher is writing.

<u>Planning the Message</u>

• Plan each message ahead of time. At the beginning of the year, messages should be 5-7 words long. The messages should be meaningful, describing something that children will actually do. Messages can be repeated periodically, but not so often that they no longer engage interest and support learning.

• The message always starts with the same phrase (the "stem"). The repetition of the stem across all messages supports children's memory: "We are going to ..."

* Note: Teachers should only use whole words in these messages (e.g., "we are" and not the contraction "we're").

• Plan a message to support the literacy concepts you are targeting (e.g., a message with a long word to support longer lines for longer words; or a message with a word beginning with certain initial sound to target how to use the Sound Map). Children are not asked to invent the message to preserve the pacing and focus on the target literacy concept.

Flow of Message of the Day

1. Say the message aloud and have children repeat it.
2. Children say the message with you as you write a line for each word.
3. Children reread the empty lines with you as you point to each one.
4. Write the words on the lines while children say each word you are writing.
5. Read the message together with the children, fading out your voice.

* The first few times you do Message of the Day, say the message and then draw a quick, simple sketch of your message. For example, if your message is, "We are going to read a book," draw yourself with a book. You are
modeling that we can draw to help us remember.

* Eliminate drawing the message as soon as children make any kind of representational drawing on their Play Plans, no matter how primitive the drawing. If you continue to draw the message, you will give the impression that the child's Play Plan has to look like yours. In 3-year-olds classrooms you may need to make an exception and continue drawing the message for a few weeks.

* Have children slow down their speech to match your writing. You want them to say each word at the same time you are writing it—and writing is slower than talking!

* Use correct spelling and grammar, including appropriate capitalization and punctuation. Your writing should look like an adult's writing.

* Choose one literacy concept to teach during each Message of the Day session. Continue to keep the activity short, under 5 minutes if possible.

Increasing the Challenge of Message of the Day-Fall

Introduce these literacy concepts:

• **Writing has a purpose** — "Writing helps us remember. We can draw and write to remember." Reread message later to remind you what you planned to do.
• **Writing represents speech** — "Writing is putting our words on paper. We can read what we said." ... "I said ___ and this (point to line or word) is ____."
• **Voice-to-line match/concept of word** — "I make a line for every word. The line stands for the word. I write one word on each line. Say the words as I make the line."
Note: If you have mixed-age children with some returning students who had the Tools program, they will be ready to pick up where they left off in their independent Scaffolded Writing. This means the skills you target in Message of the Day may roll out sooner in your classroom as you choose target skills on the edge of emergence for your learners; see the other Increasing the Challenge sections for more ideas.

Increasing the Challenge of Message of the Day-Late Fall

Introduce or review these literacy concepts:
• **Using end punctuation** —Bring attention to using a period at the end of sentences. You might say, "We put a period at the end of the message to say, 'This is the end
of my message,'" or "We use a dot to end the thought."
• **How to recognize and correct if there are too many or too few lines**—Model recognizing when there are too many or too few lines and correcting for it:
- When you draw the lines, make an error in the number without it being obvious.
-Point to the lines as you and the children read them together. Your goal is for the children to discover that you have run out of lines or have extra lines and point out the error to you. When the teacher gets to this point, he/she should look shocked! "Oh, my goodness! What happened?"
- If you made too many lines, point out that the message and the lines don't match so you don't need "these lines" (as you point to them). Make a diagonal line through each line you don't need crossing it out, but do not
erase. Be matter of fact and say, "We don't need those." Then reread the lines with the children to check to see if there is now one line for each word.
-If you made too few lines, point out that you need more lines so the message will match. Add the missing lines and reread with the children to ensure there is one line for each word. Note: Do not count the words or lines,
this changes the nature of the task.
•**Identifying sound-to-symbol correspondence using the Sound Map: Initial sounds** —Model finding one initial sound and its corresponding letter in one word of the message. Words should have a strong initial consonant that is easily identified, such as /b/ or /k/ and not a digraph (/sh/), a blend (/bl/), or a vowel.
-Write the message, up to the word you chose.
-Stop and sound out the word, then find its initial sound on the sound map and contrast it with another sound. "*Book /B/ book.* What word starts with the same sound as /b/ook? Look here on the Sound Map. Does it sound like /b/ baby or /c/ car? That's right, it sounds like /b/baby." Start by contrasting sounds that are farther away on the Sound Map, and gradually shift to sounds that are closer.
-Continue writing the rest of the word.
-Within a few weeks, children will say aloud the initial sounds in the stem words and more, telling you what to write. You'll hear a chorus of "Watch! Robot! Goose!" as you write "We are going..." Encourage this private speech.

Increasing the Challenge of Message of the Day-Winter

Introduce or review these literacy concepts:
• **Identifying sound-to-symbol correspondence using the Sound Map: Ending sounds** — Model finding one ending sound and its corresponding letter in the message. Choose a word ending in a consonant that is easy to hear. If the word is "book," write the first sounds and then pause at the last sound, enunciating it carefully. Use the Sound Map to guide the process. You might say, "Book/k/," is that "k" like /k/ koala, or "p" /p/ potato?" Then, confirm the children's correct response and write the ending sound. As with initial sounds, within a few weeks you will hear children prompting you with the appropriate ending sound, like "koala" for the final /k/ in *book*, or "turtle" for the /t/ in *eat*. Encourage this.
• **Shifting the focus of attention from sounds to letter names**—Once children have learned many letter sounds, shift attention to letter names. Each time you prompt children to help you find a sound in the message, have them say both the letter sound and letter name.
• **Metalinguistic awareness** —Bring children's attention to the length of lines. Longer words have longer lines, shorter words have shorter lines.

Increasing the Challenge of Message of the Day-Spring

Introduce these literacy concepts:
• **Reading only the text remaining** — After writing the sentence and going through the typical steps in Message of the Day, erase one word at a time in the message. The children read the words that are left, beginning with the first word. After each rereading, ask, "Does this make sense?" The following is a rough developmental sequence for this process:
- Erase from the end of the sentence. Erase the last word and then read the sentence; erase the next word and read, etc.
- Erase from the beginning of the sentence. Erase the first word and then read the sentence; erase the next word and read, etc.
- Erase words at random. Erase one word at random and then read the sentence; erase another and read, etc.
As children are ready, continue to model finding sound-to-symbol correspondences:
• **Finding medial consonant sound and corresponding letter**— Lead children in finding one medial consonant for one word, using the Sound Map. Begin by leading children through sounding out the initial and ending sounds before bringing their attention to the medial sound and the letter that represents it.
• **Using the Vowel Sound Map**— Introduce when children begin to notice and write vowels in their independent writing.
- Begin by selecting a target word with a short medial vowel. Select words with long vowels next. Guide children in finding vowels on the Vowel Sound Map.
- Note: Always write a silent "e" or any other silent vowels without comment. Only bring children's attention to vowels they can hear.
• **Hearing and representing sounds using the alphabetic principle** — When children are consistently hearing medial sounds, you can begin to model sounding out and representing letters in the order in which the sounds occur, which is called the alphabetic principle.
• **Hearing and representing the blends (/bl/, /fl/, /dr/, etc.)** — A blend is where two letters (or more) are pronounced so that they are blended together but each letter retains its own sound (/bl/, /tr/, /nd/). Model representing initial blends, emphasizing the initial sound.
• **Hearing and representing consonant digraphs (/sh/, /th/, etc.)** — When there are a few children who spontaneously try to write these sounds in words in their independent writing, integrate this target skill into

your message. Say the word and tell children the sound is represented by two letters, then tell them the letters. Explain that this sound is not on the Sound Map because it is a digraph (when two letters make a single sound). Choose words in which the digraph is easily isolated, usually at the beginning of a word. Target digraphs for preschool include /sh/, /th/, /ch/ and /wh/. (Note: Although /ph/ is a digraph, we do not use it in preschool.)

• **Hearing and representing high-frequency word patterns** — Point out word patterns like "ing," "at" and "in"—"chunks" that go together in words—as you represent them in the message.

• **Sight words** — Point out that some words we just memorize because they cannot be sounded out. "We call these words sight words because we have to remember what they look like." Children may have already memorized sight words such as *are*, *and*, and *the*.

Share the News

In Share the News, the teacher and children read the Share the News Icon Chart together, and the teacher introduces a topic for the day's discussion. Children discuss the topic with a partner. The teacher brings the activity to a close by talking briefly about several of the comments heard.

As the year progresses, Share the News grows with the children. Teachers introduce new and more complex topics for discussion, including emotions (labeling and talking about them), play themes, social problem solving, reflecting on rules and their meaning, and giving and receiving compliments.

Many young children have had extended conversations only with adults, rather than with other children. Typically this means that they are making one- or two-word replies to adult questions, rather than talking in full sentences with another person. However, holding a conversation is something that can be taught. Share the News was developed to get children to practice talking to each other because shared activity and the use of language is so important in the Tools classroom. This experience of sharing with someone else tends to spill positively into other aspects in the classroom, such as talking during lunch, outside on the playground, and during play, as well as during cooperative activities such as Story Lab or the Numerals Game. The fruits of this activity are great in terms of getting children used to using language to communicate with other children, and it sets them up for positive cooperative activities, brainstorming, and discussing ideas with others. By the end of the year, Share the News becomes a mechanism by which children can discuss with one another real social problems and concerns.

Time Block

Share the News takes place every day during Opening Group.

Structure of Share the News

Materials
• Share the News Icon Chart

Share the News

- Make sure everyone has a partner
- Listen to today's topic
- Think of something to say
- Share with your partner
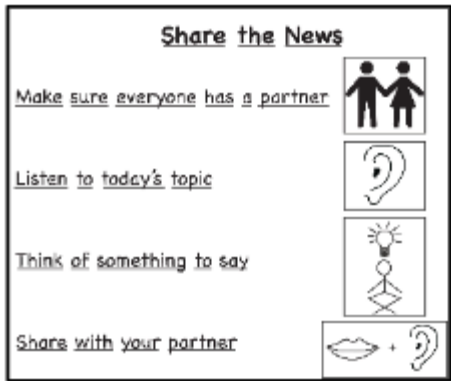
• Books-These should discuss emotions or show pictures of emotions
• Objects or Photos-Brought from home for Share and Tell discussion topics and a basket or container with classroom objects, books, or photos for children who need something to share

Classroom Setup and Teacher Preparation

• Share the News begins with the whole class sitting together on the rug. Children partner with another child who is near to them.
• Because the idea is for children to partner with every child in the class over time, Share the News works best if children do not have assigned seats on the floor.
• If you have an odd number of children in your class, you or another adult can be one child's partner at the beginning of the year. As soon as children can self-regulate, create one group of three children.
• Place or hold the Share the News Icon Chart where both children and you can view it.

Flow of Share the News

1. Help children follow the first step: "Make sure everyone has a partner." Help children position themselves to make eye contact and interact with their partner.
2. Tell children the topic for discussion today. Support children who need time and assistance to think of what to say.
3. Children share their news on the topic. As children share, encourage them to talk directly to partners rather than to you.
4. Signal with a gesture or a short clapping routine, or simply have children listen for your voice, to let them know it's time to stop talking.
5. Summarize a few thoughts you heard today.
* Begin with fall topic suggestions. Prompt children to change roles partway through the session. Later, children will naturally take turns.
* Help children extend their conversations by asking questions such as: "What else? Tell your friend another thought about ____."

Increase the Challenge of Share the News

Late Fall

• *Add Double Talk.* After children share with their first partner, they turn to the next partner and share again.

<u>Winter-Spring</u>

• *Introduce Share and Tell topics:* Unlike traditional "Show and Tell," where each child stands up and shares in front of the whole group, in Share and Tell, children share an object one-on-one with a partner. Ask children to bring an object from home to share, and be sure to have some items available in the classroom for children who forget to bring something in. Each child shares their object one-on-one with a partner.

• *Change discussion topics:* Move on from fall topics to more complex play theme-related topics, understanding emotions, and talking about social problems. As the year goes on, children will be ready to share about more challenging topics related to social-emotional development. Teachers may choose to revisit topics that have been used before, if they seem timely. For example, it's easy to imagine revisiting a conversation about how to use playground equipment safely as the school year goes on and children need reminders.

Share the News Topic Suggestions

<u>Fall Topic Suggestions</u>
<u>Getting to Know You</u>
• What I ate for breakfast (or lunch, dinner, snack, etc.)
• My favorite snack
• My favorite toy
• My favorite book
• My favorite movie
• My favorite TV show
• What I like to do in school
• Where I played yesterday for Make-Believe Play

<u>Related to Make-Believe Play Practice</u>
• Ask children to talk about what they did in Make-Believe Play Practice the previous day. If you acted out a scenario where the baby was hungry, have the children share that with a buddy. "Remember when our baby was crying? Show your buddy what we did to make the baby stop crying."

<u>Late Fall Topic Suggestions</u>
<u>Theme-Related: Family</u>
• What makes a baby (or mommy, daddy, etc.) happy? What does the baby look like when they are happy (child makes that face)? How do you know? What can you do to make a baby happy?
• What makes a baby (or mommy, daddy, etc.) laugh? What does the baby look like (child makes that face)? How do you know? What can you do to make someone else laugh?
• How do you know a baby is hungry? What does the baby do? What can the mommy (or daddy, sister, brother, etc.) do when the baby is hungry? What happens when you feed the baby?
• How do you know a baby is mad? What does the baby do?
• How do you know a baby is afraid? What does the baby do?

<u>Theme-Related: Restaurant</u>
• If you were a customer in a restaurant and ordered your favorite meal, but when you tasted your food, it tasted awful, how would you feel? What would your face look like? What would you say or do?
• What would a waiter do if a customer was angry about a meal? How would the waiter feel? What would they say or do?
• If you were a customer in a restaurant and it was time to pay and you discovered you didn't have any money, what would you feel like? What would your face look like? What would you do or say?
• If you were a waiter and you dropped a tray full of food, how would you feel? What would your face look like? What would you do?

• If you were a customer and you sat down and the table was all dirty and sticky with food from someone else, how would you feel? What would your face look like? What would you say or do?

Theme-Related: Grocery Store
• If you were a cashier and had a long line of customers waiting at your register and they were getting impatient, how would you feel? What would your face look like? What would you do or say?
• If you were shopping in the grocery store and your cart knocked over some cans at the end of an aisle, how would you feel? What would your face look like? What would you do or say?
• If the grocery store had a sale on your favorite ice cream, but when you got there they were all sold out, how would you feel? What would your face look like? What would you do or say?
• If you were a cashier in a grocery store and you had no customers and had to stand there waiting and waiting, how would you feel? What would your face look like? What would you do or say?

Theme-Related: Hospital
• If you hurt your arm and were at the hospital to get an X-ray, how would you feel? What would your face look like? What would you say or do?
• If you were a doctor in a hospital taking care of a scared child, what would you do? How would you feel? What would your face look like?
• If you were a nurse and you had lots of fussy and sick patients to take care of, how might you feel? What would your face look like? What would you do or say?
• If you were a mommy or daddy taking a sick child to the hospital, how would you feel? What would your face look like? What would you do or say?

Winter Topic Suggestions
Understanding Emotions
• What makes you happy? What do you look like when you're happy?
• How can you tell if someone else is happy?
• What makes you laugh?
• What makes you mad? What do you look like when you are mad?
• What do you do to get over being mad?
• How can you tell if someone else is mad?
• What makes you sad?
• What makes you afraid?

Emotion Recognition
• What do you look like when you are happy? What do you do?
• What do you look like when you are sad? What do you do?
• What do you look like when you are afraid? What do you do?
• What do you look like when you are mad? What do you do?

Introducing Social Problem-Solving Discussions
• Select a topic and present it as a "What could/should/can you do if/when" question. "What could you do if your friend is talking to you when the teacher is reading the story..." Or "Your friend is having a bad day. What could you do that is nice that would make him feel better?"
• Tell the children that they should think of lots of ways to solve the problem because there is always more than one way to solve any problem.

Social Problem-Solving Sample Topics
• You are standing on the playground, and someone steps on your foot.
• You want a turn on the swing, but all the swings are full.
• You want to play with your best friend, but she is already playing with someone else.
• Your friend is sad because they can't go to the same center as you.
• It is time to come in from the playground, but you do not want to stop playing.
• Your best friend says, "I'm not your friend!"
• You want to play ball with the group, but they have already started the game.
• Your friend keeps asking to play with your toy, but you still want to play with it.

Theme-Related: Pets
• If you were a mom or dad and you had a new puppy or kitten, how would you feel if you came home and

they had made a mess? What would your face look like? What would you say?
• If you had a pet that was sick and you were taking it to the vet, how would you feel? What would your face look like? What would you say to your pet to comfort it?
• If you lost your pet, what you would you feel? What would you do? What would you say?
• If you lost your pet but someone found it, how would you feel then? What would you say to the people who found your pet? What would you say to your pet?

Theme-Related: Community Helpers
• If you were a firefighter and you received a call from dispatch that there was a fire, how would you feel? What would you say to the victims? What would you do?
• If you were a police officer and you were called to investigate a robbery, how would you feel? What would you say? What would your voice sound like?
• If you were a jewelry store owner and discovered that all your diamond rings were gone, and you called the police, what would you say on the phone? How would you feel? What would your voice sound like?
• If you were a police officer and a child who was lost came up to you for help, how would you feel? What would you say to the child? What would you do?
• If you were an ambulance driver and you had a sick child in the ambulance, what would you say to him/her? What would your face look like? What would your voice sound like?
• If you were a sick child in an ambulance, how would you feel? What would your face look like? What would you say?

Share and Tell Ideas for Different Themes: Pets
• Families could send in leashes, collars, empty boxes or tins of animal food, cages, pet carriers, photos of pets (or neighbor's, grandparent's), nail clippers, pet brushes, gerbil or hamster wheels, etc.

Spring Topic Suggestions
Social Problem Solving
• You are running to get in line and bump into the person ahead of you
• Someone at the art table has all the markers
• You are walking into school talking to your friend, and a big kid knocks you down
• Someone else is using the pencil you want
• At lunchtime the person next to you spills your milk
• When playing soccer, two children always take the ball and won't let you have a turn
• When you are playing with the new toy car, the wheel falls off
• When you go to the playhouse, someone else always gets the princess costume first
• Someone takes the book you want to read
• Another child has been on the computer for a long time, and you want a turn
• You throw the ball to your friend, but you throw too hard and the ball hits another child

Theme-Related: Travel/Transportation
• If you were running late to get to your plane and there was a long line, how would you feel? What would your face look like? What would you say?
• If you were a pilot and you hit some clouds and turbulence, how would you feel? What would your face look like? What would you say?
• If you were a mom or dad on an airplane with your child, and your child's ears began getting plugged up and she started crying, how would you feel? How would your child feel? What would you do or say?

Theme Related: Camping
• If you were a Park Ranger and you got a call about a camper with a hurt leg, how would you feel? What would your face look like? What would you do?
• If you were camping and thought you heard a bear, how would you feel? What would your face look like? What would you do?
• If you were hiking in the woods and got lost, how would you feel? What would your face look like? What would you do?

Theme Related: Vacation
• If you got to the pool at your hotel but found it was closed for repair, how would you feel? What would your face look like? What would you say?

• If you were a mom or dad and you went to check into your motel room but they didn't have any rooms left, how would you feel? What would your face look like? What would you do?
• If you were a mom or dad and you were afraid you were going to be late to catch a plane or train, how would you feel? What would your face look like? What would you say?
Transitions to Kindergarten
• Near the end of the school year, many teachers begin to prepare children who are about to move to kindergarten for this new setting

Tallying

Tallying is introduced in the Spring. In Tallying, the teacher introduces children to the idea of making a mark to represent an object or a response to a question. Children and the teacher tally together. Tally marks are drawn in clusters of five short lines — four close together with a fifth cutting diagonally across them (shown).
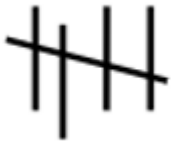
In this activity, children practice symbolic representation of "units" by representing a unit with a tally mark. The tally mark is a representative model that is then translated into a number — which is just another type of symbol. Tallying is a different way to express the same ideas that are expressed in graphing. Those ideas are the first step in children's development of measurement. Tallying is a way for children to keep track of how many units it takes to measure something. Tallying uses both a physical action (drawing the tally mark) and a symbolic representation of the idea of number, as in counting and using a numeral to represent the amount.

Time Block

Tallying can take place in Opening or Closing Group. When it is part of Opening Group, Tallying is implemented on Friday with a shortened version of Timeline Calendar and Weather Graphing (*sample alternation chart shown*):

Monday	Tuesday	Wednesday	Thursday	Friday
Full Timeline	Shortened Timeline	Full Timeline	Shortened Timeline	Shortened Timeline
Shortened Weather	Full Weather	Shortened Weather	Full Weather	Shortened Weather
				Tallying

Structure of Tallying

Materials
• Tally Board-Use a whiteboard
• Dry erase marker
• Raise Your Hand mediator card

Classroom Setup and Teacher Preparation
• Prior to the activity, the teacher makes a Tally Board by drawing the ruled pattern shown here onto the whiteboard with a marker
• This activity should be done with the large group, while children are seated on the rug. You will sit in a chair in front of the children with the Tally Board on an easel or blackboard ledge nearby. You may also hold the board facing the children while making the tally marks so children can easily see.

Question goes here

Answer choices go here, depending on the question:

Yes/No

Boy/Girl

Like/Dislike

Are you wearing shorts?

Tally marks go here

Totals go here

Yes　　No
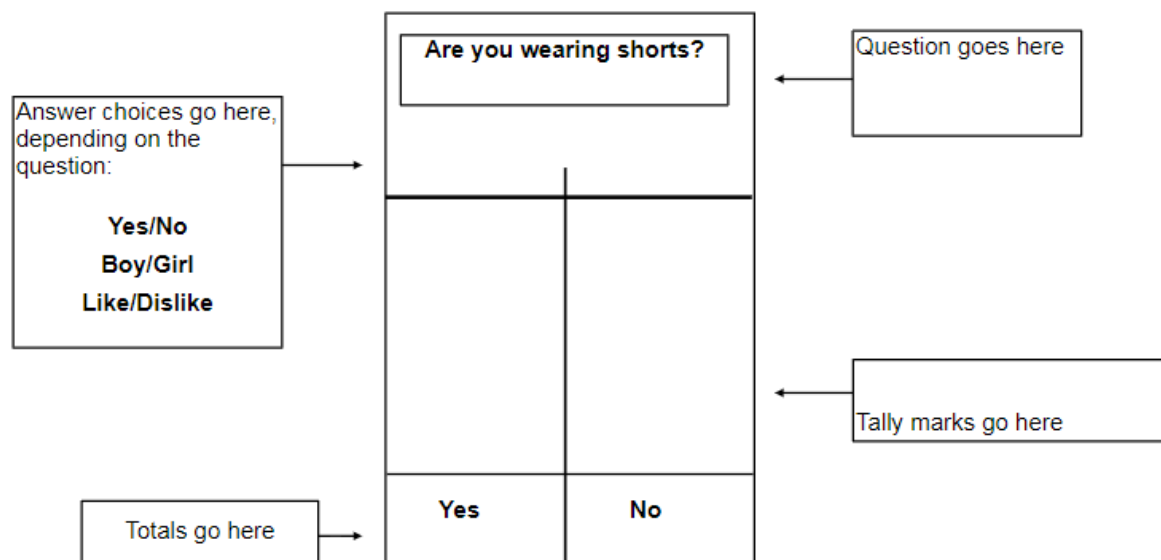
Flow of Tallying
1. Begin by bringing out one of the questions used in Mystery Question (e.g., "Are you wearing shorts?"). Tell children that they are going to tally the answer to the question. Read the question with them. In future Tallying activities, continue to rely on other yes/no questions, such as questions about preferences regarding food, books, games, etc. (e.g., "Do you like pizza?").
2. Show children the Raise Your Hand mediator card and put it in a prominent place for the children to see. Tell (or remind) them of the rule: "You raise your hand to answer and keep your hand up until I call on you and make a mark for your answer on the Tally Board."
3. Read the question. Children keep their hands raised until you say their name and make a mark on the board, saying "mark" with the children as you record each answer. Once children become familiar with the procedure, you do not have to say "mark" every time.

4. Whenever you complete a group of five tallies and draw the diagonal line, point out to children that a group of lines like this in a tally means there are five; they will be able to count by 5s and do not have to count each
line.

5. After every child has answered, invite the children to make a prediction about which answer has more tallies. Children should respond chorally or turn and tell a friend their predictions. Once they are familiar with tallying, you can also ask them to predict if there are more than 5 or more than 10 responses on one side or another.

6. Count up the number of tally marks in the first column together with the children, counting by 5s when appropriate. Then write a simple number sentence in the bottom section of the column (e.g., = 7, which tells the children "This means seven people answered 'Yes'"). Go on to count the marks in the second column and record the answer again in a simple number sentence, engaging the children to say with you what it means ("Three people answered 'No'").

7. Ask the children to interpret the results (e.g., "Did more people answer 'Yes' or 'No'?") and have children respond chorally or turn and tell a friend. Confirm the result and show them how the tallies and the number sentences at the bottom provide proof of the right answer.

8. Leave the Tally Board displayed in a prominent place for children to look at until you do tallying with them again.

Are you wearing shorts?	
Yes	No
= 7	= 3

Timeline Calendar

In this activity, the teacher leads the children in reading the Timeline Calendar, which is presented in a linear, number-line format instead of the traditional matrix. The children use the number line to learn time and number concepts. They count the number of days, talk about upcoming and past events, comment on the number of days until and since an event, and so on. The group sings a song about the days of the week. After the month is over, the calendars are posted in a continuous line around the room, helping children understand that time is continuous.

At the start of the year, teachers introduce the Timeline Calendar as the "full version." As the year

progresses, and students become more familiar with the concepts that are embedded, teachers alternate versions of Timeline Calendar and Weather Graphing (see sample schedule below). The teacher may choose to do a "shortened" Timeline Calendar with a "full" Weather, or vice versa, targeting concepts for discussion in one activity or the other, but not both.

Monday	Tuesday	Wednesday	Thursday	Friday
Full Timeline	*Shortened* Timeline	*Full* Timeline	*Shortened* Timeline	*Full* Timeline
Shortened Weather	Full Weather	Shortened Weather	Full Weather	Shortened Weather

Concepts related to the calendar are quite difficult for young children to understand, and this is why the calendar is taught from preschool to second grade. The first concepts about the calendar that are learned are vocabulary words such as *today*, *tomorrow*, and *yesterday*; the date; and the idea *how many days until*. Tools presents the calendar in the form of a timeline rather than as the traditional matrix. We use a timeline for several reasons. First, a timeline is easier for young children to understand and follow; a traditional calendar requires children be able to sweep back to the left at the end of the line. Second, a number line lends itself to more developmentally appropriate discussions about concepts that are the most important for young children to learn. The number line makes the calendar into a math activity where counting will eventually be practiced in a manner that makes sense. We do not write the days of the week on the timeline; instead we make the calendar
more personal and meaningful by tracking the number of days children are in school and the number of days they are at home. We also use icons that stand for birthdays, field trips, and other special activities, which attach to the calendar. Children sing a days of the week song every day starting midyear. Finally, the way we do the calendar activity includes only one pattern: buses and houses, because doing too many concepts on the timeline is distracting. We do not place extra icons on the calendar to match a theme for that month (e.g., pumpkins and bats for October, or mittens and snowflakes for January). Patterns are taught at other times in the day when
children can practice patterning in a more appropriate context.

Time Block
Timeline Calendar occurs daily during Opening Group, lasting less than 5 minutes.

Structure of Timeline Calendar-Same Materials for both Full and Shortened Version
Materials
• Calendar strips for each month — Post a linear calendar strip. Post the name of the month above the strip (see Materials Kit or eTools)
• Icons for school and stay-at-home days — School days are denoted with a school bus, and stay-at-home days with a house (reusable stick-on icons in Materials Kits).
The icons reflect the days that the *program* is open. If a program is open three days a week, there are bus icons on those dates. If the program is open four days a week but
a child attends only three days, each typical week should be marked with four buses and three houses. Holidays are marked by placing a "No" icon (shown) on the school days that children do not come to school.

• Icon cards for special dates and birthdays — Reusable stick-on icons (in Materials Kit); teachers can also create icons (e.g., a cupcake or a balloon for a birthday, a pumpkin for Halloween, etc.)
• Dry erase markers — To write on laminated calendar strips

Classroom Setup and Teacher Preparation
• Below is an example of what a timeline calendar looks like. In this example, all Mondays through Fridays are considered school days, and Saturdays and Sundays are stay-at-home days. Special dates and birthdays go on the bottom of the strip, below the numerals.

• The calendar for the current month should be displayed at children's eye level (e.g., on a wall, at the back of a bookshelf, etc.), so children can revisit it during the day. As each month ends, the calendar strip is moved and calendars are placed in sequence to make an extended timeline so children can see and refer back to them.

Flow of Timeline Calendar-Shortened Version
1. State the date with the children as you cross off the day. Children say month, date, and year.
2. Day to day, the full version of Timeline Calendar alternates with the shortened version (see alternation chart shown).

Monday	Tuesday	Wednesday	Thursday	Friday
Full Timeline	*Shortened* Timeline	*Full* Timeline	*Shortened* Timeline	*Full* Timeline
Shortened Weather	Full Weather	Shortened Weather	Full Weather	Shortened Weather

Flow of Timeline Calendar (Full)
1. Identify the month and ask the children to predict today's date (the first number after the crossed-off numbers).
2. Say today's date using cardinal numbers ("five" rather than "the fifth"), and draw a diagonal slash mark over the date. For example, say, "Today is March 5," and draw a slash line from the top left to the bottom

right over the date.

3. Lead the children in counting and clapping the days from the beginning of the month. Count the days with numbers ("One, two, three, four..."), rather than saying "first, second, third, fourth..." As you point with one hand at each day on the calendar, tap the side of your leg with the other hand, signifying that the children are to clap with you. Stop at today's date.

4. Summarize the timeline by repeating the full date, hesitating so children have a chance to fill in the month, date, and year. You would say: "Today is September five, two thousand twenty four."

* Fade out your voice so you can be sure all children are counting aloud with you.

* Be sure to stand so all children can see the days that have passed and the numbers as they count.

* Keep Full Timeline Calendar to less than 5 minutes. If it's taking longer, cover different concepts on different days.

Increasing the Challenge of Timeline Calendar (Shortened Version)

Implement the Tallying activity on Friday with short versions of Timeline Calendar and Weather Graphing. The activity rotation will look like this:

Monday	Tuesday	Wednesday	Thursday	Friday
Full Timeline	*Shortened* Timeline	*Full* Timeline	*Shortened* Timeline	*Shortened* Timeline
Shortened Weather	Full Weather	Shortened Weather	Full Weather	Shortened Weather
				Tallying

Increasing the Challenge of Timeline Calendar (Full)

Add Days of the Week to Activity Flow:

• Add the days of the week icons to the calendar and sing a Days of the Week song. The new activity flow is:

1. Identify today's date and draw a slash mark over the date

2. Teacher and children sing Days of the Week Song while the teacher points at each date; children stop on correct day when teacher gets to today's date

3. Have children say the <u>day of the week</u> in addition to the month, date, and year: "Today is Monday, February six, two thousand twenty four."

4. Discuss a time and/or math concept

• **See concepts taught across the year for more ways to increase the challenge.**

Concepts Taught Across the Year

Time Concepts

Date of *today*, *tomorrow*, and *yesterday* — For the other two concepts, you can say:

- If today's date is six, then yesterday was ...? (Pause to let children guess.) If I want to know what yesterday was, I have to go this way on the number line (gesturing to the left), so yesterday was five.
- If today's date is six, then tomorrow will be ...? (Pause to let children guess.) If I want to know what tomorrow will be, I go this way (gesture to the right). This is the number 7, so tomorrow will be seven.

Stay-at-home **and** *school days* — Children "read" the icons at the top of the calendar strip. You can say:

- What kind of a day is today—a home day or a school day? (Pause as children guess.) If I want to know what kind of day it is, I would look here. (Point to the date and then up to its icon.) This says it is a (pause so children can make another guess) ___ day.
- Yesterday was a ...? (Point to yesterday's icon and hesitate so children can guess.) It was a ___ day.
- Tomorrow will be a ...? (Point to tomorrow's date (the first date not crossed out) and then to its icon and hesitate so children can guess.) It was a ___ day.

After **and** *before* — In Timeline Calendar, you are teaching the idea that an event will come *after* today. (You teach this similarly to teaching concept of *tomorrow, yesterday*, etc.) Then teach the concept of *before*,
which is a difficult one for most children to understand. You can say:

- If today is six, then the day after today will be ...? (Pause to let children guess.)
- If I want to know what the day after today will be, I have to go this way on the number line (gesturing to the right). The day after today will be seven.

Look back at previous months — Point out events that happened several months ago. Discuss how the months fit together and how the last day of one month is followed by the first day of the next month.
Counting Concepts

- "How many days until ___" — For the first few months, choose something that is no more than five days away. By midyear, you can likely go to 10 days away.
- "More days until ___ than until ___" — Pick two different dates and help children to notice that there are more days until the later date than until the earlier date.
- Counting on — Pick two numbers on the timeline. Have children start counting from the first number (not from 1) to the other number.

Weather Graphing

In Weather Graphing, children identify the weather outside and the teacher places a mark on the Weather Graph. Each day children read their graph to determine what kind of weather occurred most often.
In the early fall, teachers do a full version of Weather Graphing. From late fall until the end of the school year, teachers alternate day-by-day between doing the full version of Weather Graphing and doing a shortened version of Weather Graphing. On the days teachers do the full version of Weather Graphing, they continue to focus on weather concepts. In the spring, Tallying is implemented on Friday with a shortened version of Timeline Calendar and Weather Graphing.
Schedule, Fall to Winter:

Monday	Tuesday	Wednesday	Thursday	Friday
Full Timeline	*Shortened* Timeline	*Full* Timeline	*Shortened* Timeline	*Full* Timeline
Shortened Weather	**Full Weather**	**Shortened Weather**	**Full Weather**	**Shortened Weather**

Schedule, Spring:

Monday	Tuesday	Wednesday	Thursday	Friday
Full Timeline	*Shortened* Timeline	*Full* Timeline	*Shortened* Timeline	*Shortened* Timeline
Shortened Weather	**Full Weather**	**Shortened Weather**	**Full Weather**	**Shortened Weather**
				Tallying

It is part of the Vygotskian philosophy that children be introduced to concepts in a meaningful context. Therefore, we want to introduce children to ideas such as *tallying* and *graphing* during an activity where children track something over time that is meaningful to them — something they are familiar with. The weather is a perfect example of doing this. The process can be used to teach many different mathematics skills, such as the use of
counting as a comparison tool, and how to display data. Math concepts that are easier to comprehend such as *more*, *many*, and *same* can be shown, as well as more difficult concepts such as *less, few*, and *most*.
In addition, Weather Graphing presents an opportunity to discuss science concepts about the weather and the world around the child. These science facts are the foundation of later understanding of the weather and what causes it.

Time Block
Weather Graphing occurs every day during Opening Group, or after Outdoor Time if the children do not have a window in the classroom.

Structure of Weather Graphing-Same Materials for both Full and Shortened Version
Materials
• Weather Graph-A graph with icons and text for sunny, cloudy, rainy, and snowy weather, laminated (see Materials Kit or eTools)
• Dry erase marker or removable dots-For marking the weather
Classroom Setup and Teacher Preparation
• Weather Graphing is a short activity designed to take 2–3 minutes. Children are seated on the rug so they can all see the Weather Graph and also see outside. All of the children help with deciding what the weather is and graphing the weather, using choral response to describe what they see.
• When you have graphed enough days to fill up one column, start over with a blank graph. Most likely, filling a column will not coincide with the Timeline Calendar, as starting a new graph depends on your particular weather conditions. In sunny states, for example, you will fill the "sunny" column of the graph

before a month is over.

Flow of Weather Graphing (Shortened Version)

1. State the weather.

2. Mark the weather.

* Day to day, the full version of Weather Graphing alternates with the shortened version (sample alternation chart shown):

Monday	Tuesday	Wednesday	Thursday	Friday
Full Timeline	Shortened Timeline	Full Timeline	Shortened Timeline	Full Timeline
Shortened Weather	*Full* Weather	*Shortened* Weather	*Full* Weather	*Shortened* Weather

Flow of Weather Graphing (Full)

1. Ask the children what the weather is like today, and have them look out the window to see.
2. Ask all children to respond to the question either chorally, or by turning and telling a friend.
3. Name the best choice for today's weather: sunny, cloudy, rainy or snowy.
4. Have the children direct you to where to make the mark to record the weather. Slowly move your hand along the bottom of the chart, from left to right, reading aloud the choices and asking them to say "stop" when you get to the correct picture for today's weather. Make a mark in that column.
5. Lead the children in comparing the number of marks, discussing no more than two of the concepts of more than, same, less than, etc.
* In the beginning of the year, you'll want to explain the function of this graph as something you use to keep track of or remember what the weather was like before.
* Always pick just one word to describe that day's weather. Many times you will have to decide what kind of day it is—it might be both cloudy and rainy! Settle on a convention or rule to use: We suggest you use whatever the weather is like at the very moment you ask the question.
* When comparing the number of marks in different columns, be sure to say "zero" when there are no marks and explain that zero means "no marks."
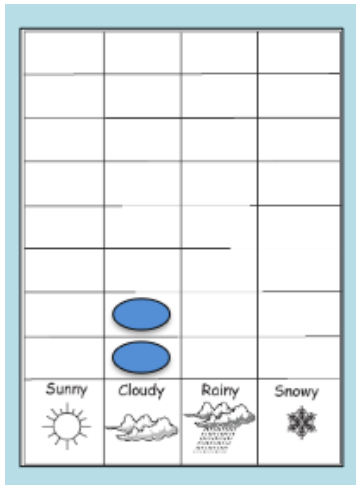
Increasing the Challenge of Weather Graphing

- After you've recorded data for several weeks, the teacher and class will count the number of marks in each column. Have the children clap as they count.
- Starting in the spring, implement the Tallying activity on Friday with short versions of Timeline Calendar and Weather Graphing.

Enduring Understandings

Attention Focusing and Refocusing Activities

For children to:

- Voluntarily pay attention
- Self-regulate
- Practice rhyme
- Develop oral language
- Combine speech with motor action or music
- Participate in shared activity with other children

Classroom Rules

For children to:

- Learn and remember rules
- Recognize when rules are being followed and violated
- Apply rules to others (other-regulation)
- Use rules to guide their own behavior (internalize the rules)

Message of the Day

For children to:

- Learn how to do Scaffolded Writing
- Learn specific literacy concepts: writing as a tool to help us remember, concept of word, metalinguistic awareness, sound-to-symbol correspondence, concepts of writing (sweep, flow of writing, punctuation)
- Understand how to handle making errors and use errors to learn; develop a healthy attitude about making mistakes, viewing mistakes as a natural part of learning
- Learn to re-read written messages: read on the text, use memory to help you remember the message, use decoding of sounds to help you remember the message

Share the News

For children to:

- Strengthen oral language skills and build vocabulary
- Practice conversing with peers and engaging in positive social interaction
- Take turns listening and speaking and talk "on topic" (self-regulation)
- Practice labeling and talking about emotions and feelings — the beginning of emotion recognition and emotional regulation
- Partner, over time, with every child in the class, building relationships with all classmates to create a warm, cooperative community of learners

Tallying

For children to:

- Learn how to create a tally (a visual model) to track and display data
- Practice counting by 5s
- Practice isolating attributes
- Attend to one attribute while ignoring others
- Express the result of tallying with numbers and a number sentence
- Compare quantities

Timeline Calendar

For children to:

- Learn the concept of a calendar as a continuous number line composed of days, weeks, and months
- Count on a number line
- Learn the rote-counting sequence
- Learn time concepts such as today, tomorrow, and yesterday
- Learn math concepts such as counting how many days until and how many days since
- Learn inhibitory control (stop clapping and counting when you reach the appropriate day)

Weather Graphing

For children to:

- Observe and describe the weather using vocabulary for weather and number
- Use graphs to record data
- Read graphs to interpret data and answer questions (comparing, counting, predicting)

- Use words for comparing quantities, such as more, most, many, some, same, less, few
- Understand the concept of zero
- Discuss weather and seasons
- Attend and remember on-purpose; practice inhibitory control

Summative Assessment and/or Summative Criteria

Attention Focusing:

Ages 3 4 5	Oral Language in Attention-Focusing Activities
	— Gestures only
	— Repeats part of activity (joins in on one part)
	— Repeats along with others, doing gestures, but not in sync
	— Words and gestures begin to go together but child needs support of others doing the entire fingerplay, song, or movement/action
	— Can recite and do the hand gestures for one fingerplay, song, or movement/action independently
	— Knows 1-3 fingerplays independently
	— Knows 3-6 fingerplays independently
	— Knows 6-10 fingerplays independently
	— Knows more than 12 fingerplays independently

Ages 3 4 5	Self-Regulation in Attention-Focusing Activities
	— Gestures or talks only on parts related to self (says own name, points to self)
	— Attends for only part of the fingerplay or song
	— Initiates the gesture after the word in a fingerplay or song, or following the gestures of the group in Do What I Do
	— Inhibits gestures until the right moment with support from the group for a known fingerplay or song
	— Inhibits gestures until the right moment independently to a known fingerplay or song
	— Can alter speed of both speech and gesture independently to match the tempo of the fingerplay, song, or Do What I Do gesture

Classroom Rules:

Ages 3　4　5	Self-Regulation in Classroom Rules
	— Follows rules with teacher support — Follows rules when reminded by other children — Reminds other children of the rules (other-regulation) — Remembers rules — Independently follows the rules — Adjusts to different rules for different activities and contexts — Talks about, uses, or innovates rules in play scenarios

Message of the Day:

Ages 3　4　5	Self-Regulation in Message of the Day
	— Sustains attention for only part of activity — Remembers only part of activity — Imitates language of the other children and teacher — Sustains attention through entire activity — Uses language to self-regulate — talks along with other children — Independently answers questions teacher poses to the group — Blurts out the words, saying them out of sequence with what teacher is doing — Says the word only as teacher draws the line — Remembers on-purpose the entire sequence of the activity — Blurts out names of letters, out of sync with what teacher is doing — Calls out names of letters that represent the sounds at the appropriate time — Recognizes when teacher has too many lines or too few lines independently — Cannot inhibit saying the word when it is erased — "Reads" the words that are present

Ages 3 4 5	Scaffolded Writing Knowledge in Message of the Day
	— Does not remember the message without group support
	— Remembers the message, but says it too quickly or too slowly so it does not match line-making or the writing on the lines
	— Matches voice-to-line for part of message (the stem), but loses it at end of message
	— Matches voice-to-line for all of message as teacher writes the lines
	— Matches voice-to-line for all of message when rereading the lines
	— Matches voice-to-line for all of message when writing the words
	— Matches voice-to-line for all of message when rereading the message
	— Rereads message the next day by remembering the message
	— Knows which line stands for which word: Finds the word by rereading the line
	— Identifies when there are too few lines
	— Identifies when there are too many lines
	— Knows that you sweep to the next line when you write
	— Knows the purpose of a period
	— Shows phonemic awareness by identifying first sound in the word being written and another word (child's name, name of an object) as being the same sound (/m/Mary and /m/make are the same)
	— Has sound-to-symbol correspondence for initial consonant sounds
	— Calls out names of the letters that represent sounds
	— Has memorized spelling of some words (sight words): *like, the, to,* etc.
	— Has sound-to-symbol correspondence for ending sounds
	— Understands that you read text that is present. When words are erased will read words that are present
	— Understands what it means when you say "Does this make sense?"
	— Has sound-to-symbol correspondence for medial consonant sounds
	— Has sound-to-symbol correspondence for some long and short vowels
	— Has sound-to-symbol correspondence for consonant blends
	— Has sound-to-symbol correspondence for digraphs (sh, th, wh)
	— Knows you start a sentence with a capital letter

Share the News:

Ages 3 4 5	Oral Language in Share the News
	— Nods or gestures a response
	— Says a single-word response ("pizza")
	— Labels with a few words ("pizza with pepperoni")
	— Uses a simple sentence ("I like ___" or "___ makes me happy")
	— Uses several simple sentences on same topic, or uses *and* to join two sentences together ("I had bananas and I had juice")
	— Uses new vocabulary in speaking about topic ("A baby makes a face like this when he's hungry")
	— Talks about topic using multiple sentences ("I like pepperoni pizza. The crust is my favorite")
	— Responds to buddy by using some of partner's language, expanding with a spontaneous response, making a personal connection ("I don't like bacon, how can you eat that?!")

Ages 3 4 5	Self-Regulation in Share the News
	— Is disengaged, looks elsewhere
	— Starts talking without looking at buddy; starts talking at same time as partner
	— Attends to buddy when partner starts sharing, but has difficulty being the listener and interrupts, blurting out own response
	— Attends to buddy and says own thoughts, not commenting on partner's thoughts
	— Can take one turn, listening and responding and sharing own ideas and thoughts
	— Participates in two turns — listening to the buddy and talking and listening to the buddy's response and talking
	— Monitors turn taking and inhibits speaking to allow buddy to take turn
	— Has internalized the rules of conversation and participates, fully engaging in a several-round exchange

Ages 3 4 5	Emotion Recognition in Share the News
	— Exhibits basic emotions (happy, sad, mad/angry) — Exhibits embarrassment, pride, envy — Recognizes and labels basic emotions of another person when watching that person — Can identify expression of basic emotions of another person shown in a picture — Can label own basic emotions at that moment — Can imitate facial expression associated with a basic emotion with the support of a picture — Can imitate facial expression associated with a basic emotion based on the name of the emotion — Can describe a basic emotion and when it happens to make you feel that way ("What makes me feel ___?") — Uses multiple cues to identify emotions — Can describe emotions in the past and predict emotional responses based on these feelings — Realizes that people hide their emotions ("What you see on their face may not be what they are feeling inside") — Recognizes you can feel two emotions at the same time

Tallying:

Ages 3 4 5	Self-Regulation in Tallying
	— Sustains attention for only part of the activity — Imitates the gesture and language of other children. Holds up hand and then lowers hand when other children do it — Remembers only part of the activity. Raises and lowers hand only if prompted by teacher or peer — Sustains attention through entire activity. Raises and lowers hand appropriately — Uses gesture and language to regulate (counting when tally is made) — Independently counts, and stops on correct number

Ages 3 4 5	Number Concepts in Tallying
	— Uses some number words, but without number sequence, no order
	— Rote-counts numbers 1-10
	— Counts 1-3 objects independently
	— Matches objects one to one (one-to-one correspondence) with another set of objects for 1-5 objects
	— Says when object has been added or subtracted from array of 1-3 objects
	— Recognizes numerals 1-3 independently
	— Can check and correct another child when *too many, too few,* or *correct number* for 1-5
	— When teacher says "mark," says "mark" or imitates saying the number, or says any number at the appropriate time
	— Knows when two groups of objects have same number, they are the same
	— Counts 1-5 objects independently
	— Recognizes numerals 1-5 independently
	— Can check and correct another child when *too many, too few,* or *correct number* for 1-10
	— Adds or subtracts one object from small collections under 5 and answers question "How many are there now?" independently
	— Corrects other children who hold up hands or lower them at wrong time
	— Counts when teacher says "mark" or is told by teacher to say a number
	— Knows last number represents the total counted (*cardinality principle*)
	— Counts tally marks and knows they stand for each person
	— Understands meaning of the hash mark, making a group of 5
	— Counts 1-10 objects independently
	— Recognizes numberals 1-10 independently
	— Determines size of set (1-5 objects) without counting the objects (*subitizes*)
	— Counts tally marks independently
	— Counts starting with a number other than 1 (e.g., "5, 6, 7, 8")
	— Counts 1-15 objects
	— Recognizes numerals 1-20 independently
	— Can read number sentence
	— Adds groups of 5s together then starts counting (e.g., "5, 10, 11,12, 13")
	— Counts 1-20 objects independently
	— Relates number sentence to tally marks
	— Counts 1-30 objects independently

Timeline Calendar:

Ages 3 4 5	Self-Regulation in Timeline Calendar
	— Sustains attention for only part of the activity — Remembers only part of the activity — Imitates the gestures and language of other children — Sustains attention through entire activity — Uses gesture and language to self-regulate (counting/clapping with group) — Independently inhibits counting on the last number in the date sequence

Ages 3 4 5	Math Concepts in Timeline Calendar
	— Cannot rote-count. Says numbers at random — Can counts to 5 with support of the group — Rote-counts to 10 with support of the group — Rote-counts to 10 independently — Understands *after* and *before* — Counts "how many days until" under 10 — Notices patterns in school and stay-at-home days — Sings Days of the Week song with the group — Recognizes numerals 1-10 — Can "count on" a number other than 1 for numbers under 10 — Rote-counts to 20 with support — Rote-counts to 20 independently — Recognizes numerals 11-20 — Can "count on" numbers starting on a number other than 1 to 20 — Rote-counts to 30 — Can "count on" numbers starting on a number other than 1 to 30 — Recognizes numerals 21-30 — Notices pattern in number words 21-31 — Can "count on" from any number — Identifies whether there are *fewer* or *more* "days until ____ than ____" — Uses timeline to answer questions about *today, tomorrow* and *yesterday* — Applies time concepts to multiple months — Says next day when given day of the week — Notices patteen in days of the week — Recognizes that one month stops and the next month starts — Relates timeline calendar to conventional calendar — Can find date on conventional calendar

Weather Graphing:

Ages 3 4 5	*Mathematics Concepts in Weather Graphing*
	— Rote-counts as teacher points to marks with the group — Knows that higher column means *more* — Counts marks in the columns independently — Uses vocabulary words (*more than, less than*) — Understands concept of *zero:* Says there are "zero rainy days" if this column has no marks — Can count backwards when teacher removes the marks — Knows bigger numbers mean that there are *more* and that this is the same as height of the marks in the column

Ages 3 4 5	*Self-Regulation in Weather Graphing*
	— Sustains attention for only part of activity — Imitates gestures and language of other children — Says the kind of weather, but does not remember the weather when the class is marking the chart — Remembers the weather when marking the chart — Sustains attention through entire activity — Uses gesture and language to self-regulate (counting/clapping with group) — Remembers on-purpose entire sequence of the activity: Say name of the weather, marks the column, counts the number — Is able to track teacher's movement and say "stop" when correct icon is indicated — Counts and claps in sync with the teacher pointing to the marks in the column for each kind of weather

Standards

MA.PK.4.1.1	Count to 20 by ones with minimal prompting.
MA.PK.4.2.1.a	putting together and adding to (e.g., "3 blue pegs, 2 yellow pegs, 5 pegs altogether."); and
MA.PK.4.2.1.b	taking apart and taking from ("I have four carrot sticks. I'm eating one. Now I have 3.").
MA.PK.4.4.1	Respond to and use positional words (e.g., in, under, between, down, behind).
ELA.L.PK.1.d	Understand and use question words (e.g., who, what, where, when, why, how).
ELA.L.PK.1.f	Begin to speak in complete sentences.
ELA.PK.RF.PK.1	Begin to demonstrate understanding of basic features of print.
ELA.PK.SL.PK.4	Begin to describe familiar people, places, things, and events and sometimes with detail.
ELA.PK.SL.PK.5	Use drawings or visual displays to add to descriptions to provide additional detail.

ELA.PK.SL.PK.6	With guidance and support, speak audibly and express thoughts, feelings, and ideas.
ELA.RF.PK.1.b	Recognize that spoken words can be written and read.
ELA.RF.PK.1.c	Recognize that words are separated by spaces.
ELA.RF.PK.1.d	Recognize and name many upper and lower case letters of the alphabet.
ELA.RF.PK.2.a	Recognize and produce simple rhyming words.
ELA.RF.PK.2.c	Identify many initial sounds of familiar words.
ELA.RF.PK.3.a	Associates many letters (consonants and vowels as ready) with their names and their most frequent sounds.
SCI.PK.5.4.3	Observe and record weather (e.g., chart temperatures throughout the seasons or represent levels of wind by waving scarves outdoors).
SED.PK.0.1.2	Express ideas for activities and initiate discussions.
SED.PK.0.2.3	Move through classroom routines and activities with minimal teacher direction and transition easily from one activity to the next.
SED.PK.0.2.4	Attend to tasks for a period of time.
SED.PK.0.3.1	Recognize and describe a wide range of feelings, including sadness, anger, fear, and happiness.

Suggested Modifications for Special Education, ELL and Gifted Students

Attention Focusing

• Both dual-language learners and children who have low levels of oral language benefit from repetition. Repeat the same fingerplay or chant several times in a day. Encourage these children to begin participating with gesture.
• If children have self-regulation difficulties, make sure that they sit near the teacher and have support for their actions (e.g., a carpet square that makes sitting still easier). Proximity and physical cues are important mediators.
• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Classroom Rules

Children learn to use rules to guide their behavior, which is an aspect of self-regulation. When children are self-regulated, they will accept, remember and follow classroom rules on their own. That is, they have internalized the rules. It's important to note that it is typical for preschool children to not consistently follow all the rules all the time, and this is developmentally appropriate. The best place to develop self-regulation is not during a disciplinary situation but during play and self-regulation games. Any solution

that the teacher comes up with after a disciplinary situation will have short-term impact. The child might comply for the moment, but will probably not internalize the rule. The following strategies offer longer-term solutions or different situations:

- <u>Child who forgets the rules</u>: This child will need to be reminded of the rules more often than other children. Anticipate the times when this child will most likely forget the rules and remind the child ahead of time. This is most effective if you ask the child to say the rule with you right before the rule is going to be used; for example, "Alex, our rule is that we clean up our own messes." Encourage other children to remind the child, too.
- <u>Child who knows the rule but doesn't remember it at the right time:</u> This child may need an external mediator to remind them of the rules, such as a card with the rule on it (in written and icon form) to hold. For the mediator to work, the child must use it only for the time during which they are most likely to forget the rules, and the card must be made by (or with) the child. In the beginning, you can cue the child to get the mediator, but eventually, the child should choose to get it on their own. We want the child to use the mediator until the rule is internalized—that is, until the child can comply with the rule on their own. This may take one or two times, or it may take more.
- <u>Child who knows the rules but does not seem to want to follow them</u>: This can occur because this child does not feel they have a relationship with the teacher. To reverse this, the teacher must form a positive relationship with the child and ensure that they have a positive learning environment and social interactions with peers.
- <u>Child who fails to adjust to different rules at different times</u>: Some children seem not to realize that there are different rules in the lunchroom or different rules in other classrooms, Specials, etc. For this child, remind them that there are different rules. Also, encourage the teachers in other classrooms to make those rules clear.

For dual-language learners:

- <u>Child who has difficulty remembering the rules in the language used in the classroom</u>: Have the rules translated into the child's home language, and use the language and a mediator to help this child remember what to do. A Spanish phrase book resource is available on eTools, and you can use it as a model to create your own for the other languages in your classroom. There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Message of the Day

- If you have dual-language learners in your group, you can write the same message in the children's home language in the same way. Make sure that children understand the message has the same meaning: "I'm going to write the same thing in Spanish."
- If you are providing instruction only in Spanish, we have a Spanish language Sound Map version you can use on eTools.
- There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this

activity.

> In one Tools classroom, the teacher repeated the message "We are going to eat lunch" in nine different languages. The teacher had parents help write the message in their home language or come to class and write the Message of the Day themselves for the children.

Share the News

• If you have dual-language learners in your group, make sure you translate for them if you can, and repeat topics so children can have something that they've discussed
with one child to use with another child.
• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Tallying

• Because this is a group activity, most children are able to participate with the support of their peers.
• If you have dual-language learners in your group, encourage them to count in their home language as well as in English. Make sure that children understand the question in their home language.
• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Timeline Calendar

• If you have children who are dual-language learners in your classroom, make sure that you count in both languages at the beginning of the year. In classrooms where many different languages are spoken, talking about the calendar in different languages (including English) is often a good strategy for helping children understand what the calendar is. Usually teachers find that they transition to English just because you want children to be able to consistently count to 30 in English by the end of the year and counting that high in multiple languages is impractical during the short time span allotted for this activity. If there are a large number of Spanish-speaking children and you are a dual-language program, you can alternate counting in Spanish on one day and in English on another.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Weather Graphing

• If you have dual-language learners in your classroom, make sure that they understand the weather icons in their home language. If many of the children speak the same language, you may find that you want to alternate the use of that language with English.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Diversity & Cultural Awareness

Attention Focusing

Share fingerplays and songs from a variety of cultures and languages; ask families to share favorites with you. Be sure any songs you use incorporate gesture. Tools has English and Spanish fingerplay videos on eTools to help get started!

Classroom Rules

Display posters, artwork, and other visual reminders that reflect the diverse cultures and backgrounds of the students in the classroom. This can reinforce the importance of diversity and inclusion.

Message of the Day

From time to time, write a message related to an upcoming holiday or cultural event, like "We are going to read about Diwali." Over the course of the school year, be sure your messages reflect the traditions celebrated in our broader culture, in your local community, and by the families in your program.

<u>**Share the News**</u>

Scaffold by using images related to the topic. The child who is working on expressive language can point, and an English-speaking partner can help her learn the vocabulary.

Share topics ahead of time with parents and ELL teachers so that they can help children prepare.

Pair the child with a peer who speaks her home language to help get her familiar with the routine. Then teach the peer how to act as a translator by grouping the pair with another English-speaking child.

Model for children that they can say a word or sentence in the other child's home language. It demonstrates that all languages are equal in value.

<u>**Tallying**</u>

Use questions for Tallying that celebrate diverse languages and experiences. For example, Does your family speak Spanish at home?

<u>**Timeline Calendar**</u>

In addition to the Timeline Calendar holiday and special days static cling mediators provided in the Materials Kit, use the blank mediators to create icons for additional holidays and events. These may be events celebrated in our broader culture, in your community, and by the families in your classroom. Use Timeline Calendar as an opportunity to help children learn the names of these holidays and when they occur. Children also learn that not everyone celebrates the same holidays.

<u>**Weather Graphing**</u>

As part of the graphing activity, include a component where students can see how people dress in different cultures based on the weather. Create a graph that shows images of traditional clothing for various weather conditions.

Scaffolded Writing

Content Area: **Language Arts**
Course(s):
Time Period:
Length:
Status: **Published**

Summary of the Unit

Children use Scaffolded Writing to plan, draw, and then write messages with the help of multiple mediators. In Scaffolded Writing, lines are used to represent words. What children's writing looks like (scribbles, drawings, lines, initial letter sounds, estimated spelling, word patterns) depends on where each child is in their writing development. Scaffolded Writing is used in Message of the Day, Play Planning, Story Lab–Learning Facts and Story Extensions, Science Eyes, and Write Along.

Children use Scaffolded Writing with the teacher in Message of the Day and Write Along during Opening Group. They use Scaffolded Writing individually in Play Planning during the Make-Believe Play Center Block; in Story Lab–Learning Facts and Science Eyes during Math/Science Activities; and in Story Lab–Story Extensions during Small Group Literacy Activities.

Scaffolded Writing over the Entire Preschool Year				
	Early Fall	**Late Fall**	**Winter**	**Spring**
The teacher models	• Message of the Day	• Message of the Day	• Message of the Day	• Message of the Day (Write a Familiar Fingerplay)
Child practices with support from the teacher	• Play Plans	• Play Plans • Story Lab—Learning Facts	• Play Plans • Story Lab—Learning Facts, Story Extensions	• Play Plans • Story Lab—Learning Facts, Story Extensions • Science Eyes
Child practices independently with support from a peer		• Play Plans • Play	• Play Plans • Story Lab—Learning Facts, Story Extensions • Play	• Play Plans • Story Lab—Learning Facts, Story Extensions • Play • Science Eyes • Write Along
Child practices independently	• Play Plans • Play	• Play Plans • Play	• Play Plans • Story Lab—Learning Facts, Story Extensions • Play	• Play Plans • Story Lab—Learning Facts, Story Extensions • Play • Science Eyes • Write Along

Time Block

Children use Scaffolded Writing with the teacher during Message of the Day and Write Along during Opening Group. They use Scaffolded Writing individually in Play Planning during the Make-Believe Play Center Block; in Story Lab-Learning Facts and Science Eyes during Math/Science Activities; and in Story Lab-Story Extensions during Small Group Literacy Activities.

Materials Needed

Writing materials change depending on the activity and the time of the year.

•**Thick markers, thin markers, and pencils** — Children begin with thick markers, transitioning to thin markers later in year and then to a pencil for independent
writing (continuing to use markers or crayons for drawing, depending on the activity).

• **Scaffolded Writing paper** — Includes a Dynamic Assessment box mediator in the top right corner for teachers, and divided space for the child's picture
(above the line) and words (below the line). The paper is different sizes for different activities but always has these elements (example shown).

• **Sound Maps and Vowel Maps** — Available when children are ready for them; one of each map for every two children (to support shared activity). Children are ready for Sound Maps when they are at the L (lines) level, and for Vowel Maps

when they have reached the MS (medial sounds) level.

• **Pen** — Teachers write with a color pen so that their writing on children's work can be easily distinguished.

Flow of Scaffolded Writing

Child Flow

1. I say my message out loud.

2. I draw a picture of my message.

3. I say my message again, and draw a line for each word.

4. I reread my lines, checking to make sure there's one line for each word.

5. I write on the lines, reread, and write more.

6. I reread my message, touching the lines or words

Teacher Flow

1. I ask a child to read me their message.

2. I mark what the child did independently by circling in the Dynamic Assessment box all the independent levels representing what the child can do on their own.

3. I choose one skill to scaffold in the child's ZPD, and X that skill on the Dynamic Assessment box.

4. I leave the child with one more thing to do so that they can apply the skill independently.

Enduring Understandings

Through Scaffolded Writing, students will be able to:

- Practice how to plan and think before acting
- Learn to monitor the meaning of their message and their actions
- Do one thing at a time
- Exercise working memory by holding more than one thing in mind
- Reflect on and think about the words they are going to write
- Develop the foundational understandings and learn and practice the prerequisite skills for decoding and reading. These understandings and skills include:
  - Concept of word
  - Phonemic awareness
  - Phonics
  - Alphabetic principle

Sound Map

In the beginning, children use the (consonant) Sound Map to find the initial sounds of words that they can easily remember, which are usually words in the stem of Center Plans or a Message of the Day. As they become familiar with the writing process, they begin to find initial sounds for a wider variety of words and at the same time begin to write a greater variety of words. It is not uncommon for children to write a letter representing a sound within a cluster and not the conventionally correct letter. They often mispronounce words, which leads to estimated spelling using letter sounds the child hears but that do not make sense to adults or that include extra sounds that are not actually in that word. For most children, use of the Vowel Map occurs after children hear ending and medial consonants.

As children learn the sound-to-symbol correspondences, they use the Sound Map selectively — only for those sounds they do not know. They represent medial consonants and vowels generally after they represent initial and ending sounds; and they may need to refer to the Sound Map again to find these sounds. They begin to memorize the spelling of sight words, and they begin to incorporate word patterns in their writing. Their writing begins to become regularized if they reach Levels 7 and 8 in Scaffolded Writing (but this does not typically happen until the end of kindergarten).By the time children are at those levels, they no longer use the Sound Map at all.

Steps for Implementing Scaffolded Writing

Any activity with Scaffolded Writing always includes the following steps (with different children able to complete different steps depending upon their development):

• Step 1— The writer plans, draws the message, and says it aloud.

• Step 2 — The words in the message are repeated aloud, as the writer makes lines to represent each spoken word. The length of the line and the articulation of the word match the length of the word. The writer uses punctuation (a period) to end the sentence.

• Step 3 — The empty lines are "reread," as the writer points to each line that stands for each specific word.

• Step 4 — Each word is represented on its respective line. The manner in which children represent the word depends on where they are in their literacy development, with some children writing only lines and others adding letters on the line to represent the sounds in the word. When the teacher writes on the line, the child says the word, pronouncing it so that saying it lasts as long as writing it takes.

• Step 5 — The completed sentence is reread aloud, with the writer pointing to the lines/words as each word is reread.

Standards

ELA.PK.L.PK.2	Begin to understand the simple conventions of standard English grammar during read and writing experiences throughout the day.
ELA.PK.W.PK.1	Use a combination of drawings, dictation, scribble writing, letter-strings, or invented spelling to share a preference or opinion during play or other activities.
ELA.PK.W.PK.2	Use a combination of drawings, dictation, scribble writing, letter-strings, or invented spelling to share information during play or other activities.
ELA.PK.W.PK.5	With guidance and support, share a drawing with dictation, scribble-writing, letter-str or invented spelling to describe an event real or imagined.

Suggested Modifications for Special Education, ELL and Gifted Students

• If you have dual-language learners in your classroom, there is no reason they have to do Scaffolded Writing in English. For languages that have an alphabetic system, children can draw lines to represent words in that language. In dual-language classrooms, children sometimes plan in both English and the second language, driving home the point that the messages are equivalent in meaning even though the
language is different.

• If you are teaching children to write in Spanish, the process of Scaffolded Writing follows the same beginning trajectory as in English for Plan, Picture, Message, Lines and Initial Sounds. After that, students begin segmenting words into syllables. See eTools for Spanish language resources for Scaffolded Writing.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development.

Diversity & Cultural Awareness

- Teaching children a few key words in a peer's home language sets up the opportunity for peer scaffolding. Words like yes, no, too many (lines), and too few (lines) are a good place to start! See the Tools Phrase Book on eTools for additional activity phrases in Spanish, and customize it to include additional languages spoken in your classroom.
- Respecting children's names is one of the most important things teachers do. Sometimes we have an inclination to shorten a long name to make it easier to write, but names are important to children and their families. Children in Tools learn to write their names one letter at a time. No name is too long!

Self Regulation (Ongoing)

Content Area: **Sample Content Area**

Summary of the Unit

In Physical Self-Regulation Games, children practice physical self-regulation by planning
and inhibiting specific actions until the appropriate moment, and learning to follow complex directions.
Physical Self-Regulation Games are designed to be fun, engaging activities that support self-regulation
development. The games exercise children's self-regulation because children have to enact a specific
physical action, match it with private speech (in some activities), engage in multiple actions in series
and patterns, and inhibit other actions. They follow directions, act on-purpose, and attend to visual and
auditory cues.

Physical self-regulation is the first type of self-regulation to develop and, according to Vygotsky,
it precedes social-emotional and cognitive self-regulation. This means physical self-regulation is
extremely important to build a foundation for physical self-regulation during the first half of the year.

Time Block

Physical Self-Regulation Games occur in Large Group Time Blocks including Opening and Closing
Group. You can use this type of game any time you need to get children moving and replenish their
self-regulation energy. Some of these games are effective as outdoor activities and others can be done
during transitions.

Enduring Understandings

For children to:
• Practice physical self-regulation
   - Plan actions
   - Inhibit actions
   - Act on-purpose
   - Follow directions
   - Use private speech as a tool for remembering and staying on task
• Engage in a positive and fun social interaction with the whole group
• Freeze on the Number also supports subitization (the ability to quickly recognize numbers without
counting)

Resources

[What is self-regulation and why does it matter?](#)

[¿Qué es la autorregulación y por qué es importante?](#)

Implementing Physical Self-Regulation Games

We encourage teachers to do many other movement games, especially at the beginning of the year. Sitting for a long time makes it difficult for children to self-regulate, so it is important to do one movement game or Attention Focusing activity in every Large Group Time Block. Old favorites like "If You're Happy and You Know It," and movement games like "The Hokey Pokey" are great self-regulation activities, as well. Reach out to colleagues and families if you need suggestions for songs in other languages, too. You can also just put on music and dance!

Freeze Game

The Freeze Game is introduced right at the beginning of the year, and then variations with increasing challenge are introduced throughout the year as children develop. Teachers learn to gauge children's readiness for new variations by observing their participation in the game. When the challenge level is insufficient, self-regulation and motivation decrease. Introducing a new challenge can revive both. You will learn to gauge when to introduce a new challenge level based on the children's response and engagement.

Freeze Game

Freeze Game & Variations			
Fall	**Late Fall**	**Winter**	**Spring**
Freeze Game Sets 1-3			
		Freeze on the Number	
			Partner Freeze Two-Step Freeze

Structure of Freeze Game

Materials
• **Freeze Game Song and Portable Music Player** — We recommend Greg and Steve's song "The Freeze" from We All Live Together: Volume 2 (in Materials Kit). It's important that the "stops" be built into the song, so no one has to start and stop the music manually.
• **Freeze Game Cards, Set 1** (9 poses)**, Sets 2 & 3** (6 poses each)
Classroom Setup & Teacher Preparation
• Do the activity where there is ample room for children to move in their own space.
• Choose the cards you'll use in today's Freeze Game. When you first start, choose 2 or 3 poses each

time as you introduce them to children. There are 6 total "stops" in the song, so you will repeat the poses.

Flow of Freeze Game

1. Start the Freeze Game music and hold up a Freeze Game card. Prompt children to look at the card while they dance and plan the pose they will
make when the music stops.
2. When the music stops, children stop and "freeze" in the pose shown on the card.
3. Hold up a different card each time the music resumes and children begin dancing again. The children look at the new pose while dancing,
planning the pose they'll make when the music stops.
4. The process repeats, cycling through several poses.

Increasing the Challenge - Freeze Game

• While one teacher leads the activity, the other moves around as needed, supporting full, active involvement of all children.
• When poses are new to children, let them practice making the new poses with their bodies before you begin the music.
• Gradually introduce all the poses in each set. In the beginning, when children are playing with just 2-3 different pose cards at a time, they will repeat some or all of the poses during the song. Before long, children will do 6 different poses; a new one being revealed at each of the 6 "stops" in the song.
• Repeat the same process to introduce poses in Set 2 (crossing the midline poses), and Set 3 (balance poses)—show two or three new poses each time children play, building up to using a different pose each time the music "stops."
• At the most complex level, you'll use 6 cards from across the various sets so that children freeze in a different pose each time.

Two-Step Freeze Dance

Materials
• **Freeze Game Song and Portable Music Player** — Recommended: Greg and Steve's song "The Freeze" from We All Live Together: Volume 2
• **Freeze Game Cards Sets 1-3**
• **New Color Key Cards** — Four pieces of color paper, two each of two different colors. One paper will go behind a Freeze Game card so each color is easy to see, the other you will hold up one at a time to cue poses.

Classroom Setup & Teacher Preparation
• Do the activity where there is ample room for children to move in their own space.
• Select two simple poses to introduce the game, and post them on the board in the front of the group with a different colored sheet of paper behind them.
• Have two more pieces of the same colored paper ready to hold up during the game to cue poses. In the Two-Step Freeze, there is a two-part mental process children will follow: first they will identify the

color card you are holding up, then they will match that color to its pose.

Flow of Two-Step Freeze Dance

1. Start the Freeze Game music and hold up one of the Color Key cards. Prompt children to look at the color of the card (step 1) and look to find the pose posted with the same color (step 2). For example, if you hold up a yellow Color Key card, children will freeze in the pose with arms over their head.
2. When the music stops, children stop and "freeze" in the pose matching the color you have been holding up.
3. When the music resumes, hold up a different color or the same color. Keep it unpredictable!
4. Repeat the process, cycling through several poses.

Increasing the Challenge - Two-Step Freeze Dance

• While one teacher leads the activity, the other moves around as needed, supporting full, active involvement of all children
• Increase to 3 or 4 colors and posted poses at a time.
• Change the pose associated with a color during the game.
• Increase to 3 or 4 colors and posted poses at a time.
• Change the pose associated with a color during the game.
• Introduce Two-Step variations. You can use a variety of mediation from different activities in the Two-Step Freeze Game format. For example, you can post a different Make-Believe Play theme center icons with each pose on the board. Then, you hold up Role or Action Prompts associated with one center or another.

Partner Freeze

Materials
• **Freeze Game Song and Portable Music Player** — Recommended: Greg and Steve's song "The Freeze" from We All Live Together: Volume 2
• **Partner Freeze Cards** (Set 4, 6 poses)
Classroom Setup & Teacher Preparation
• Do the activity where there is ample room for children to move in their own space.
• Choose the cards you'll use in today's Partner Freeze Game. There are 6 cards total. When you first introduce the game, choose 2 or 3 poses to use in each session so children are introduced to new poses gradually over 2 or 3 sessions of game play.
• Have each child find a partner. This will be their partner for the entire game.

Flow of Partner Freeze

1. Have children find a partner and tell them the "rule": when the music is on, you dance near (but not touching) your partner, and when the music stops you make a pose with your partner.

2. Start the Freeze Game music and hold up a Partner Freeze Game card. Prompt children to look at the card while they dance and plan the pose they will make with their partner when the music stops.
3. When the music stops, children stop and "freeze" in the partner pose shown on the card.
4. Hold up a different card each time the music resumes and children begin dancing again. The children look at the new pose while dancing, planning the pose they'll make with their partner when the music stops.
5. The process repeats, cycling through several poses.

Increasing the Challenge - Partner Freeze

• Children stick with the same partner for the entire game.
• When the activity is new, have children practice the poses with their partner before the game begins.
• While one teacher leads the activity, the other moves around as needed, supporting full, active involvement of all children.
• Mix single poses and partner poses in the same game.

Freeze on the Number

Materials

• **Freeze Game Song and Portable Music Player** — Recommended: Greg and Steve's song "The Freeze" from We All Live Together: Volume 2
• **Making Collections (Object) Cards** — Begin with cards with 1-5 objects in symmetrical arrays; later, add cards with more higher quantities and more complex arrays. When possible, choose cards with images connected to your current play theme (see Materials Kit or eTools).
• **Numeral Cards** (From Numerals Game, see Materials Kit or eTools)—As with the Making Collections Cards, begin with the numerals 1-5; later, add higher numerals.

Classroom Setup & Teacher Preparation

• Do the activity where there is ample room for children to move in their own space.
• Choose the cards you'll use in today's Freeze on the Number Game. When you first start, choose 2 or 3 Making Collections cards with 1-5 objects. Gradually increase to more objects, and later introduce Numeral Cards. Keep in mind there are 6 total "stops" in the song, so in the beginning you will use the same cards multiple times.

Flow of Freeze on the Number

1. Start the Freeze Game music and hold up a Making Collections Card (after children have been doing the activity for a while, you will also use Numeral Cards). Prompt children to look at the card while they dance and count the number of objects, or identify the numeral, on the card.
2. When the music stops, children "freeze" and hold up the correct number of fingers to represent the number of objects on the card or the numeral they see. Point out different ways you see children representing the number; e.g., for the number 5: "Maya is showing 3 fingers on one hand and 2 on another! Anna is showing all 5 fingers on one hand." Soon children will be planning different ways they can represent quantities
greater than one using one or both hands, and looking to see how their peers are doing it, too.

3. Hold up a different card each time the music resumes and children begin dancing again. The children look at the new card while dancing, planning the number of fingers they'll hold up when the music stops.
4. The process repeats, cycling through several numbers.

Increasing the Challenge - Freeze on the Number

• When Freeze on the Number is new to children, have them practice showing the number with their fingers before you begin the game.
• While one teacher leads the activity, the other supports children's active involvement.
• Increase the numbers children are working with beyond 5.
• Introduce Numeral Cards.
• After children can successfully play the game with object cards and numeral cards, mix the two within a single game—sometimes children will count the number of objects, and sometimes they'll identify the numeral.

Number Follow the Leader

In Number Follow the Leader, a number is chosen along with a movement or action. Then, children as a group perform the action the same number of times as the number chosen, counting out loud as they do. In the beginning, the teacher chooses a number from 1–5 and suggests different actions. As the year goes on and children's skills grow, numbers can be increased to 10.

Structure of Number Follow the Leader

Materials
• **Numeral Cards** — From Numerals Game; see Materials Kit or eTools

Flow of Number Follow the Leader

1. Show children a numeral, and have the children all say it: "Four." Choose an action or movement that the group will repeat the same number of times as the numeral that was selected. For example, you might choose clapping for the action, and say, "We're going to clap four times."
2. Count out loud while leading the group in the movement or action.
3. Choose another action for the same numeral, or a new numeral and new action, and repeat the steps.

Increasing the Challenge - Number Follow the Leader

• Be sure the actions you use have a definite beginning and end so they are easy to count.
• Begin with the numbers 1-5. Gradually increase beyond 5 to raise the level of challenge.

• Start by using the same number several times with different actions each time. For example, the first time children do "5," they might clap five times. The next time, they might touch their shoulders five times.
• Gradually, do multiple different numbers in a single session.
• Begin by showing the Numeral Card as you say the number, but gradually take away the card. Remembering the number without the visual mediation of the Numeral Card is more challenging.
• Changing the pacing of the actions and counting impacts the level of challenge. Counting more quickly while clapping is more challenging than a slow, rhythmic "One... two..." Too slow may be boring; too fast may be outside of children's ZPDs. Some actions work better at a quicker pace, and more complex actions require a slower pace.
• Add play theme-related movements, as long as they are discrete and easily counted. For example, taking bites of food ("bite, bite, bite") or clipping a dog's nails ("clip, clip, clip") will work well, while stirring a pot of soup may not. More complex movements will increase the challenge level (for example, it's easier to remember how to clap than how to clip the dog's nails).
• Have children select the number and the action. Eventually, children can also lead this activity.

Pattern Movement

Pattern Movement is first introduced in late fall and continues through the end of the year. In Pattern Movement, children act out patterns by translating the pattern into actions. Through language and gesture, Pattern Movement teaches children the concept of pattern—a sequence that repeats in a predictable way.

The teacher shows children a pattern strip and assigns a movement to represent each of the elements that make up the pattern. Then, as a group, children perform these movements as the teacher points to the corresponding elements in the pattern. Later, children volunteer the movements to assign to each element. Movements and patterns become more complex as the year progresses.

Structure of Pattern Movement

Materials
• **Pattern strips** — See Pattern Strips on eTools
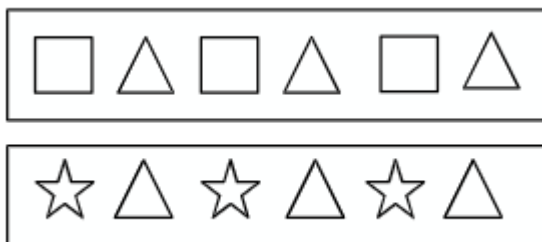
• **Pattern strip sleeve** — Used in the beginning to "mask" elements of the pattern and slide out the pattern strip, revealing one element at a time

Flow of Pattern Movement

1. Show children the pattern, pointing out its elements: "In this pattern, we have circle-square; and it is repeated: circle-square, circle-square, circle square."
2. Assign a movement and private speech to each element: "Let's pretend a square stands for touching your nose, so every time you see a
square you will touch your nose and say 'nose. 'And let's pretend a circle stands for chin, so every time you see the circle, touch your chin and say 'chin.'"
3. Put the pattern strip in the sleeve and slowly reveal one element at a time. Point to each element in the pattern. Children will say the private speech and engage in the action associated with each symbol. You'll demonstrate and say the private speech with children.
4. Repeat steps 2 and 3 with the same pattern strip, changing the movements and private speech for each pattern element. For example, circle could now be associated with "jump" and square with "touch the ground."
5. Repeat steps 1–4 with a new pattern strip.

Increasing the Challenge - Pattern Movement

• When introducing the activity, you'll say the private speech and do the gesture with the children.
• Once children are familiar with the activity, you will gradually fade out your voice and use of gesture.
• Descaffold the sleeve. Now, children look at all pattern elements at one time and focus their attention just on the element to which you are pointing.
• Invite children to choose the movements the elements will represent. Help children come up with the private speech everyone will say to remember the movement. You will continue to lead the activity, pointing to the elements, keeping the momentum and pacing appropriate for the group.
• Increase the complexity and variety of the patterns. Have children do two movements for one pattern element, and one movement for another. For example, circle could mean "tap your head, tap your knee" and square could mean "nod your head."
• Create your own pattern cards using letters, numbers, or other symbols as pattern elements. Symbols from play themes work well

Mouse Trap

This game is ideally played outdoors or in a large open area, like a gym. In Mouse Trap, some children are "mice" and others play the role "trap." Children who are pretending to be the mice eat cheese inside the trap while music plays and have to ignore the trap, which is ready to spring. When the music stops, the mice have to run away to safety on-purpose. The children who are the trap have to inhibit the desire to lower their arms and close the trap until the appropriate moment. Both groups of children first have to inhibit a specific physical behavior and then initiate a specific behavior. Although we primarily encourage this game as an outdoor game, many teachers use it on days when children cannot go outside for recess or outdoor play time.

Structure of Mouse Trap
Materials

• **Portable music player with chosen music**
Classroom Setup & Teacher Preparation
• Divide the group into two and give each a role; the children in one group are the trap, and the children in the other group are mice.
• One teacher joins the trap, and the children stand in a circle holding hands with their arms raised. The other teacher starts and stops the music.

Flow of Mouse Trap

1. Turn the music on. When the music is playing, the mice run in and out of the trap to eat cheese.
2. When the music stops, mice caught in the trap are sent to an identified spot to "eat their cheese."
3. Start and and stop the music two or three more times, catching more mice, and then have the groups switch roles and play again.
4. Help the children remember what they do in each role by getting them to tell you the 'rules': "If you are the trap, what do you do when the music is playing? And what do you do when it stops? And if you are a mouse, what do you do when the music is playing? When it stops?"
5. Stop the music frequently, so the time periods when mice run in and out of the trap are kept short. If there are still children left who did
not get trapped, end the game anyway. Say something like, "I guess there are some mice that weren't hungry for cheese!"

What Are You Doing, Mr. Wolf?

What Are You Doing, Mr. Wolf? is similar to the game Mother May I? In this game, the children advance closer and closer to the wolf, repeatedly asking, "What are you doing, Mr. Wolf?" and listening carefully to the wolf's answer, which determines whether to run away to safety. The wolf answers in various ways, eventually saying, "Brushing my teeth!" When the children hear this, it means the wolf is coming to eat them, and they run to a safe zone while the wolf chases them, trying to get there before the wolf catches them.

Increasing the Challenge - Mr. Wolf

• After children have been playing the game for a while, you can have the children who are "caught" sit out one game or stay frozen in the spots where they were caught, potentially rescued by a child who is able to reach and touch them before the wolf goes out to eat again.
• Have children take turns being Mr. Wolf.

Flow of Mr. Wolf

1. Stand in the center of the space as the wolf.
2. Prompt the children to ask you, "What are you doing, Mr. Wolf?" as they step closer and closer to you, moving toward the safe zone.

3. If you tell them you're tying your shoe, you aren't hungry. If you tell them you're brushing your hair, you aren't hungry. But if you say, "I'm brushing my teeth!" that means you're ready to eat. The children run over the line to the safe zone while you try to catch them.

4. Children who are "caught" sit down. Children who make it to the safe zone past the wolf are safe.

5. The game begins again.

Structure of Mr. Wolf

<u>Materials</u>

• **String or tape** — To make a line across the floor for a safe zone or safe area

• **SAFE" sign** — A teacher-made sign with the word SAFE. A large folded piece of cardstock works well because it can stand on its own on grass, blacktop, or a gym floor.

<u>Classroom Setup and Teacher Preparation</u>

This game is best played outdoors or in a gymnasium. The wolf stands in the center of the space, facing the children, who are lined up at a distance from the wolf (along a wall, or behind a line that indicates the starting space). A "safe zone" beyond where the wolf stands is marked by a line. Before playing for the first time, have children practice how to ask the question, "What are you doing, Mr. Wolf?" and how to listen carefully to different responses. Have them tell you each time whether they would run or not run based on the wolf's response.

Teacher: "What are you doing, Mr. Wolf?" ... "I'm combing my hair. What would you do if I said that?

Children: Not run!

Teacher: "What are you doing, Mr. Wolf?" ... "I'm brushing my teeth. What would you do?"

Children: Run!

Summative Assessment and/or Summative Criteria

Ages 3 4 5	*Physical Self-Regulation and Gross Motor Development During Other Motor Games*
	— Bumps into others
	— Cannot dance or follow the directions in the song
	— Movements are uncoordinated but sustains movement through most of the song
	— Movements are moderately coordinated and sustains movements through the song
	— Movements coordinated and sustained through the song for simple songs
	— Movements coordinated and sustained through the song for more complex songs

Standards

HPE.PK.2.4.1	Develop and refine gross-motor skills (e.g., hopping, galloping, jumping, running, and marching).
SED.PK.0.1.3	Actively engage in activities and interactions with teachers and peers.
SED.PK.0.2.4	Attend to tasks for a period of time.
SED.PK.0.4.1	Engage appropriately with peers and teachers in classroom activities.
SED.PK.0.5.1	Play independently and cooperatively in pairs and small groups.
SED.PK.0.5.3	Demonstrate how to enter into play when a group of children are already involved in
SED.PK.0.5.4	Take turns.
VPA.PK.1.1.1	Move the body in a variety of ways, with and without music.
VPA.PK.1.1.2	Respond to changes in tempo and a variety of musical rhythms through body movem
VPA.PK.1.1.3	Participate in simple sequences of movements.
VPA.PK.1.1.4	Define and maintain personal space, concentration, and focus during creative movement/dance performances.
VPA.PK.1.1.5	Participate in or observe a variety of dance and movement activities accompanied by music and/or props from different cultures and genres.
VPA.PK.1.2.5	Participate in and listen to music from a variety of cultures and times.

Suggested Modifications for Special Education, ELL and Gifted Students

• All physical self-regulation games can be modified for children with a variety of abilities. For example in the Freeze Game, children in wheelchairs can use their upper bodies to mirror poses, a hand drum can provide sensory input for children with hearing impairments to know when to dance and when to freeze, and pose cards be enlarged for children who need visual support.
• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help you identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Diversity & Cultural Awareness

Teach the children in your class a variety of movement activities from many cultures and traditions. If you're looking for ideas, reach out to families and ask parents to visit your class and teach their favorites to children.

Small Group Literacy

Content Area: **Sample Content Area**
Course(s):
Time Period:
Length:
Status: **Published**

Small Group Literacy Overview

Story Lab is an interactive reading activity in which children listen to stories with a purpose—a specific comprehension strategy in mind—and then answer questions that engage them in using the strategy. Children learn to talk with each other about the story and explain their thinking to peers. Teachers are encouraged to read traditional stories, fiction, and nonfiction books. Story Lab provides practice in oral language, listening comprehension of fiction and nonfiction texts, and development of eight unique comprehension strategies.

The eight Story Lab activities are introduced at different points in the year corresponding with children's development. Classrooms with children that are developmentally more mature, including classrooms with children returning for a second year in Tools PreK, may implement some of these Story Labs earlier in the year. Classrooms with developmentally younger children may continue using the earlier Story Lab strategies with more repetition, moving onto the later ones when children are ready.

As the year progresses, Story Lab grows with the children. The stories children listen to become more sophisticated, and the comprehension strategies they use become more complex. Most Story Lab activities begin in Small Group to maximize child engagement and participation, and are later moved to Large Group to increase the challenge. In Small Group Story Labs introduced in the second half of the year, children draw and write in response to the story using Scaffolded Writing.

Timeblock

Some Story Labs are first introduced in Small Group, and eventually shift to Large Group. Other Story Labs are always Small Group activities. Depending on which grouping you're using, you'll set up the classroom differently.
Small Group

• Divide the class in half and have one teacher take each group.
• Children can sit on the rug or at a table. The groups should be far enough apart so the competing noise isn't too loud for children to hear the story.
Large Group
• Rather than sitting on the periphery of a circle, children should sit in a group on the rug in a cluster at the teacher's feet so that they can all see the book. If you have children sitting in specific places and spread out for a part of group time, you should bring them together for this activity.

Flow of Story Labs

1. **Introduction or review of the book** — Show children the cover of the book, read the title and tell the name of the author and illustrator.
2. **Introduction of Story Lab strategy** — Bring out the Story Lab mediator card for the day and paraphrase the back of the card in your own words to explain the picture on the front. After doing several Story Lab sessions with a strategy, prompt children to remember and tell you what the card reminds them to pay attention to, or what they are listening for. Post the Story Lab card where the children can see it. Note: Do not post the mediator in a permanent spot on the wall because children will stop noticing it.
3. **Read Aloud**— Read the text as described in the specific Story Lab activity.
4. **Discussion** — Prompt children to talk about the book and apply the comprehension strategy by asking targeted questions. Use turn and talk, double talk, or choral response. Summarize the answers you heard and if there is a correct answer, identify and explain why it is correct.

Story Lab Sequence

Suggested Scope and Sequence for Story Lab			
Fall	**Late Fall**	**Winter**	**Spring**
Active Listening Connections Character Empathy			
	Vocabulary Learning Facts		
		Story Extensions Story Grammar	
			Predictions

Active Listening

A rich literacy environment is one that includes the reading of books and the enjoyment of a good story . When children listen to stories, they learn new words, become engrossed in the fantasy world of the author, and practice listening skills that will be important building blocks for the future. Teachers

read and re-read books so that the vocabulary and the storyline become internalized. Children hear the stories in the large group setting and then revisit them, talking more in-depth during Small Group Story Lab activities.

To make sure that this activity promotes the highest degree of self-regulation and shared activity, Tools teachers use specific Vygotskian techniques during Active Listening. To promote self-regulation, children tell each other the answer when questions are open-ended. When there is a specific short answer to a question, the teacher asks children to call out their answers rather than waiting to be called on one at a time. This promotes self-regulation because children are not waiting and are actively engaged in talking and answering the question. It is a shared experience because the peers provide support for the answers to the comprehension questions.
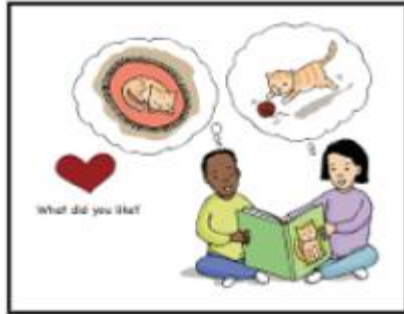
Active Listening

Purpose of Active Listening

For children to:

- Practice remembering on-purpose (deliberate memory) — recalling vocabulary, story events, and story elements (setting, characters, etc.)
- Expand working memory — holding of more than one idea in mind at a time (remember both the storyline and something from the child's own background that relates to the story, or visualize several scenes from the story and compare them)
- Make use of listening-comprehension strategies
- Strengthen oral language skills and build vocabulary; expand vocabulary use so that new vocabulary becomes part of spontaneous speech
- Experience listening to different genres of literature and develop a love of reading
- Practice conversing with peers and engaging in positive social interaction

Structure of Active Listening

Time Block

Opening and Closing Group, Small Group Literacy Block, and the Small Group Math/Science Block. In full-day programs, Active Listening also occurs in an extra Large Group time block.

Materials

•**Picture or nonfiction book**
•**Active Listening Story Lab Card**

Teacher Preparation
• Select and read in advance the book you'll share with the children.

Flow of Active Listening
- The teacher shows children a Active Listening discussion mediator card: "What did you like?" "What was your favorite part?" or "What was interesting?" (Open-ended questions)
- The teacher orients the children to the card by reminding children what it "helps us remember."
- If the book is new, the teacher reads the title and names of the author and illustrator. The teacher takes a short picture walk through the first three or four pages of the book, and children predict what it is about. If the book is familiar, the teacher just reads the title.
- The teacher reads the book all the way through without stopping.
- The teacher points to the mediator card and asks the children to turn to a friend and discuss the book by talking about what the mediator card reminds you to talk about.
- The teacher recaps some of the comments.
- The teacher asks the children to turn to the friend on the other side and discuss the book with that person.
- The teacher signals that it is time for the children to stop talking and summarizes some of the comments.

Increasing the Challenge - Active Listening
In the spring, introduce the children to using the Active Listening mediator card in Buddy Reading. Begin the Buddy Reading session by introducing the card. Have children tell you what the card means, and put it where they can see it. Use the Lips card with the question mark on it to help children remember to ask their Buddy a comprehension question. While one child is reading, the other is listening and thinking about what they like in the story. After reading, the Lips asks their Buddy, "What did you like?"

Connections
Making connections helps children learn to use their own backgrounds and experiences to enjoy and make links between what they know and new information. This enriches a child's understanding of the text. It also is a memory strategy that will help children remember the story or the facts in the story.

Purpose of Connections
For children to:

- Practice remembering on-purpose (deliberate memory) — recalling vocabulary, story events, and story elements (setting, characters, etc.)

- Expand working memory — holding of more than one idea in mind at a time (remember both the storyline and something from the child's own background that relates to the story, or visualize several scenes from the story and compare them)
- Make use of listening-comprehension strategies
- Strengthen oral language skills and build vocabulary; expand vocabulary use so that new vocabulary becomes part of spontaneous speech
- Experience listening to different genres of literature and develop a love of reading
- Practice conversing with peers and engaging in positive social interaction

Structure of Connections

Time Block
Large Group Block, Small Group Literacy Block, Opening and Closing Group, and Small Group Math/Science Block. You will also use this strategy in Buddy Reading later in the year.
Materials
• **Picture or nonfiction book**
• **Connections Story Lab Cards**
• **Sticky notes**
Teacher Preparation
Select and read in advance the book you'll share with the children. Plan ahead several places in the book where you'll pause in your reading and ask children to make a connection. You may wish to mark these pages with sticky notes to remind you.

Flow of Connections

- The teacher brings out the Connections mediator cards: text-to-text, text-to-world (video, TV, other people, or the Internet), and text-to-me.
- The teacher briefly orients the children to the cards by reminding children what they "help us remember."
- If the book is new, the teacher reads the title and names of the author and illustrator. The teacher takes a short picture walk through the first three or four pages of the book, and children predict what it is about. If the book is familiar, the teacher just reads the title. The teacher reads the book partway through, stopping two or three times at natural breaks.
- At the breaks, the teacher tells children to turn and tell their connection to a friend.
- The teacher signals it is time to stop talking, summarizes the connections heard, and points out that some of these connections relate to a specific type of connection on a mediator card. Children share with another child.
- Steps 4-5 are repeated until the book is finished.
- Teacher recaps with a specific mediator card: text-to-text, text-to-world, or text-to-me.

Increasing the Challenge - Connections

• After children share connections, recap their thoughts by talking about the different kinds of connections they made: text- to-me, text-to-text, or text-to-world. Explain how the connection that you heard fits this category ("I heard some of you say you saw a dog like this on TV. That's a text-to-world connection"). Pick just one connection to discuss at first. Over time, you will cover all three kinds of connections.
• When children are familiar with making connections and identifying the type of connection being made, start using Story Lab—Connections in Large Group.
• In the spring when children are familiar with using the Story Lab—Active Listening strategy in Buddy Reading, introduce the first Connections card ("Can you make a connection?") to Buddy Reading.

Character Empathy

In addition to providing another opportunity to engage in listening to stories and practicing listening-comprehension strategies, the Story Lab–Character Empathy provides children with an opportunity to learn about emotions and the fact that different people in the same story may have different emotions. Zaporozhets argued that early childhood was the age at which children began to integrate emotions and thinking so that thinking becomes emotional and emotions become thoughtful. The way that children act is influenced by their thinking about emotions and emotional outcomes, and the way children feel about situations becomes colored by the emotions they experienced in the past. For this reason, preschool is an important time for learning about emotions. Indeed, the importance of emotional intelligence has been also promoted in popular culture, with many psychologists, researchers, and educators noting the importance of learning to label and understand emotions and pushing the need for teaching children about feelings. Vygotskians add an extra layer to this discussion, explaining the importance of learning about emotions in books and stories as an important indirect way of teaching about emotions. Zaporozhets argued that one cannot experience firsthand all emotions (and one would not want to do so). Instead, children learn to experience emotions vicariously by reading books and through make-believe play. Literature (and movies) provide important vicarious learning experiences that are necessary if children are to become intelligent about emotions — what they are and what their consequences might be.

For this learning, though, we adults have to help children notice more than the words of the book. We also have to bring out what feelings are happening to the characters in the book. We do this by using our voices and gestures, as well as talking about these feelings. When reading a book, teachers sometimes take for granted that the illustrations convey the emotions of the characters, but this is not necessarily true. Teachers have to read the book as a storyteller or an actor would, conveying fear and other emotions by tone of voice, facial expressions, and gestures as they are reading.

It is also important to read the same book several times as a Character Empathy Story Lab. This repetition is needed because emotions will become thoughtful as children absorb the story and begin to anticipate what will happen from previous readings. Using previous emotional experiences to anticipate within the story is what helps children begin to understand emotional consequences. Re-reads help children to see more than one emotional perspective, something they might have missed the first time or two or three through a story.

Finally, it is important to note that different cultures express emotions — and even interpret what they are — in different ways. Children from some cultures may be unwilling to express certain emotions in their faces, such as anger, although they will label the emotion like the other children will. Studies show that in some cultures a situation may actually be reinterpreted so that children do not experience negative emotions; in other cultures, children are taught to control those emotions
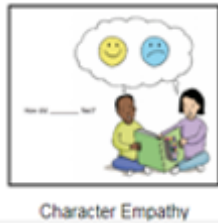
Character Empathy

Purpose of Character Empathy

For children to:

- Practice remembering on-purpose, story events, and story elements (setting, characters, etc.)
- Expand working memory — holding of more than one idea in mind at a time (imagine more than one perspective at a time)
- Engage in thinking about emotions and empathizing with the characters in a story. Describe feelings — what they are and why they happen — and pretend to feel these same feelings. Learn the meaning of words that describe emotions and begin to label emotions
- Strengthen oral language skills and build vocabulary; expand vocabulary use so that new vocabulary becomes part of spontaneous speech
- Experience listening to different genres of literature and develop a love of reading
- Practice conversing with peers and engaging in positive social interaction

Structure of Character Empathy

Time Block
Small Group Literacy Block until midyear, when it moves to the Large Group Block.
Materials
• **A familiar picture or nonfiction book**
 — By choosing a book whose setting, plot and characters are already familiar, children will be able to focus their attention on this new, different aspect of the story—the characters' feelings.
• **Character Empathy Story Lab Card**
• **Sticky notes**—To mark the places in the book where you'll stop to discuss emotions
Teacher Preparation
• Choosing the book:
  - Choose a book you've read to children before.
  - Note: Picture books of emotions don't work well because there's no context for the emotions. Be sure to choose a story where emotions are connected to situations. For example, when the baby bear in Goldilocks and The Three Bears finds his chair broke, he feels sad; the emotion is connected to the situation.
• Previewing the book: Choose one character in the book who feels strong emotions. Read the book in advance and choose three or four places where you will pause and ask, How did _____ feel?

Flow of Character Empathy

- The teacher picks out a book that the children have heard before, helps the children remember the book, and picks out a character for the children to follow.
- The teacher brings out the Character Empathy mediator card and briefly orients the children to the card by reminding them to think about how the chosen character is feeling. If there is an emotion the teacher thinks children will not know, the teacher discusses it.
- The teacher reads the book with exaggerated emotions, conveying the feelings of the characters with his/her voice and facial expressions. The teacher encourages children to "feel along with _" and prompts the children to participate.
- As the teacher reads, the children make the same gestures and facial expressions.
- After reading, the teacher picks one part of the story to talk about. Using the picture on that page as a mediator, the teacher asks the children to turn to a buddy and show what the chosen character felt at that particular point in the story. The teacher listens to the children talking together. The teacher signals it is time to stop talking, says the correct emotion, and has children show it on their faces.

Increasing the Challenge - Character Empathy

• Midyear, when children have developed more self-regulation, you may shift Character Empathy to Large Group.

• By spring, children may be ready for a variation. You'll introduce the idea that characters in the same story can have different emotions about the very same situation.

   - Choose a book that includes characters with different perspectives about the same situation (Curious George and the man in the yellow hat, Peter Rabbit and Mr. McGregor, Peter Rabbit and his mother, etc.). Choose the characters you'll focus on and select two or three points in the story when you will stop to demonstrate the feelings of each character.

   - Before reading, show children one of the pictures you've selected where you'll talk about the two characters' feelings. Tell children they are going to think about the feelings of both of these characters as you read. Introduce children to the characters and have them say their names chorally.

   - read the book and encourage children to feel along with you.

   - Stop at the places you've chosen. Emphasize the feelings of one of the characters, and name emotion vocabulary words that go along with that character. Have the children act the part of that character along with you and use the emotion vocabulary. Do the same for the other character.

   - After you have finished reading the book, turn back to one of the pictures you chose and ask children to turn and tell a buddy if the two characters felt something different. Have the buddies show each other what those emotions were and name the emotion vocabulary. If children are developmentally ready, ask them what happened that led to the character's emotion. Have children share twice, with different buddies.

   - Summarize by identifying the emotions each character is feeling and the events that led to the emotion.

Vocabulary

Story Lab—Vocabulary is designed to increase children's use of new vocabulary words, and expand children's academic language. Academic language describes the kind of language found in books that

is typically used in later grades to answer questions about text. During the early childhood years, children are exposed to this kind of language through having books read to them and discussing their content. Story Lab—Vocabulary provides intentional exposure and explicit instruction that helps children attend to and practice using language in an academic way, bridging the gap between the kinds of informal conversations they may have at home and the formal language of schooling. Both the expansion of academic language and the development of vocabulary have been shown to have a higher correlation with reading and reading readiness than even knowledge of letter names and sounds.

For Vygotskians, new words do more than just help children with literacy readiness; language helps the child to see something in a new way, to internalize new concepts, and to convert experience into new ideas that actually help shape a child's understanding of the world. Consequently, the choice of the words that are the focus of this activity is important. Words should be chosen first based on whether or not you think children are already familiar with the word or words, and whether they are commonly used in every day conversation that children might have at home. Words that describe everyday concepts but use a different word are good ones to choose, such as the word vehicle instead of car or airplane. These kinds of words expand children's repertoire of a category of words with which they are already familiar. Words that are new concepts are also a good choice, such as metamorphosis when talking about the life cycle of a butterfly. In addition, descriptive words such as adjectives and adverbs can help children expand the way that they describe things.

In presenting new vocabulary, the strategies used by Tools capitalize on helping children create networks of connection between what the child may already know and the new information. This is especially true in classrooms where children are dual language learners. Visualization and dramatization are used to help the child bring the word to life. Examples and non-examples are used to help children make distinctions between the new words and other words they may already know.

Vocabulary

Purpose of Vocabulary

For children to:

- Practice remembering vocabulary on-purpose
- Expand working memory by remembering words in context and using the new word to understand the story
- Make use of listening-comprehension strategies
- Strengthen oral language skills and build vocabulary; expand vocabulary use so that new vocabulary becomes part of spontaneous speech
- Experience listening to different genres of literature and develop a love of reading
- Practice conversing with peers and engaging in positive social interaction

Flow of Vocabulary

- The teacher looks over the book in advance and identifies two or three new vocabulary words.
- The teacher marks the page on which the words appear and writes the words on a sticky note.
- The teacher takes the children through a picture walk for the first three or four pages of the book to establish the book's setting, if the book is new.
- The teacher explains the new words using various tactics: Describe, Use Synonyms, Visualization, Examples & Non-Examples, Dramatization, and Application.
- The teacher shows the children the page and the picture that will remind them where the words are in the book.
- The teacher asks the children to say or show (gesture) what the word means to their friend. The teacher signals that it is time to stop talking and listen. Children share with another friend.
- The teacher reads the book and pauses when he/she gets to the new word, asking children to say or show what it means.

Increasing the Challenge - Vocabulary

When children have practiced this comprehension strategy in Small Group and developed the self-regulation to support sustaining attention in large group, move Story Lab— Vocabulary from Small Group to Large Group.

Learning Facts

As adults, we learn about scientific concepts by reading books; we do not experience everything we learn first-hand, but learn through the scientific experiments and knowledge base from articles, books and magazines. One of the things that children learn in elementary school and beyond is how to gather information from printed sources to add to their learning of basic concepts.

In Learning Facts, children begin to practice using drawing and writing as tools to remember facts and information on purpose. In the beginning, you will find that children will not remember that much, as they will be spending most of their mental energy on drawing something. However, it is amazing that as children begin to draw and write more, incorporating Scaffolded Writing in addition to just drawing facts, they will remember more and more facts, and what they remember becomes more sophisticated, including new vocabulary words and great detail. It proves Vygotsky's point that written speech provides special support to memory.

Learning Facts

Purpose of Learning Facts

For children to:

- Practice remembering on-purpose vocabulary and facts
- Use drawing and writing as a tool to remember
- Expand working memory — remembering words in context and using the new words to understand the story and remember facts
- Make use of listening-comprehension strategies
- Strengthen oral language skills and build vocabulary
- Expand vocabulary use so that new vocabulary becomes part of spontaneous speech
- Provide another context in which to practice Scaffolded Writing (after Training 3 and in response to a child's individual level of Scaffolded Writing)
- Experience listening to different genres of literature and develop a love of reading
- Practice conversing with peers and engaging in positive social interaction

Flow of Learning Facts

- The teacher says the name of the author and takes a short three-page picture walk through the book to activate the children's background knowledge (with either a new book or one that has been read previously).
- The teacher places the "What was interesting?" mediator card in a prominent place and reminds children what it reminds them to do.
- The teacher reads 1-5 pages of the book (depending on the number of facts on a page) and stops. The teacher asks children to tell their friend what was interesting and signals to children when it is time to stop talking. Children should share twice either with another buddy or by "saying more."
- Training 2-3: The teacher continues reading until children have shared with each other three times.
- Training 4: Instead of reading and discussing two more times, the teacher passes out paper, asking each child what he/she found interesting and says, "Draw that on your paper. You said [new fact] was interesting. Draw that."
- Children draw, and depending on the child's Scaffolded Writing level, the teacher provides support.

Increasing the Challenge - Learning Facts

Adding Drawing and Writing:
• Add this variation in the early spring, or when children are familiar with this Story Lab and ready to use Scaffolded Writing for this activity.
• Pass out the Scaffolded Writing paper and drawing materials, and have Sound Maps available. Ask each child "What did you learn?" and ask them to draw that on the paper. It doesn't matter what size Scaffolded Writing paper you use. The most important thing is that children are ready to draw as soon as you ask them what they learned. Like in Play Planning and Story Lab—Story Extensions, children need to draw as soon as possible.
• Note: It is not uncommon for the drawing and writing in Learning Facts to be at a much lower level

than what you find in Play Planning. Because we have increased the intellectual difficulty of the task by asking children to remember facts on-purpose and then draw them, some children may need support to remember their fact or what they are drawing. Also, some children may revert back to writing "I am going to..."instead of drawing their fact because they have memorized that this is what you do when you write. Just ignore this and
concentrate on refocusing them on what they learned.

Story Extensions

Comprehension is one of the most important and yet most difficult literacy skills to teach children because it is difficult to monitor what they remember and understand from listening to books. Methods of teaching comprehension usually involve building on what children remember and pulling out the answers from children's memory. What this strategy lacks is a way for children to remember in a way that helps them reflect on what they remember; because there is no tangible cue left behind. Young children cannot revisit their memories or add to the memories independently on purpose. They are more likely to remember in a reactive way only if the information is extremely interesting and salient. They are not likely to remember a story because the teacher asks them to do so.

For Vygotskians, this is why drawing is so important. Until they are able to write well, children can draw to represent what they remember from the story. The drawing helps a child look at his or her own thinking and provides mediation so that teacher, child, and other children can discuss the child's memory of the story. As children's ability to represent their thinking becomes more conventional, this drawing is gradually replaced with writing. Children draw what the remember until they understand how to represent their memory of the story on paper by writing about it. Then they learn how to do more than recall, beginning to embellish and extend the story, practicing creativity and imagination. Writing a story extension or innovation on a text is a typical reading/writing activity in later grades, and it requires advanced cognitive self-regulation skills. The activity Story Extensions provides the practice young children need to remember the story, attend to important details that they will change in an extension, inhibit previously used writing patterns ("I am going to..."), and create a related idea.

Story Extensions

Structure of Story Extensions

Time Block
Small Group Literacy Block.

Materials
• **Fiction book** — Books with simple stories and predictable sentences, as well as a repeating concept or sentence that can be used as the stem for children's writing
• **Story Extensions Story Lab Card**
• **Scaffolded Writing paper**
• **Markers or pencils and crayons**

Teacher Preparation:
Choosing the Book and Stem

• Select the book you'll use for this activity.

Book	Suggested Stems
Goodnight Moon	Goodnight, ...
I Went Walking	I saw a ...
Edward the Emu	Edward wished he was a ...
Brown Bear, Brown Bear, What Do You See?	I see a ...
Feast for 10	One _____ ... Two _____ (each child takes a number)
Good Night, Gorilla	Good night, ... (animal)
It Looked Like Spilt Milk	It looked like a ... (animal, food, object)
The Mitten	In went the ... (animal)
The Very Hungry Caterpillar	He ate through _____ (number) _____ (food)
Rosie's Walk	Rosie walked ... (places she walked)
Mrs. Wishy-Washy	In went the ... (animal)
The Tiny Seed	The tiny seed landed on a ...
If You Give a Mouse a Cookie	A mouse will ...

Purpose of Story Extensions

For children to:

- Practice remembering on-purpose (deliberate memory) — recalling vocabulary and facts
- Use drawing and writing as a tool to remember. Children remember the stem, which is repeated in the book used for the activity. Children are likely to be able to read this stem when they look at the book at another time.
- Create text that is predictable that children can read. Using a stem increases the likelihood that children will be able to read their own and other children's writing at another time, such as when they take classroom books home or look at them during Buddy Reading.
- Expand working memory — remembering words in context and using the new words to understand the story and remember facts
- Make use of listening-comprehension strategies
- Strengthen oral language skills and build vocabulary
- Expand vocabulary use so that new vocabulary becomes part of spontaneous speech
- Provide another context in which to practice Scaffolded Writing (in response to a child's individual level of Scaffolded Writing)
- Experience listening to different genres of literature and develop a love of reading

- Practice conversing with peers and engaging in positive social interaction

Flow of Story Extensions

- The teacher takes a short three-page picture walk through an identified Story Extension book to activate the children's background knowledge (either a new book or one that has been read previously).

- The teacher places the Story Extension mediator card in a prominent place and helps children recall what it reminds them to do. The teacher says,

    Training 3: "We are going to write about..." and gives the stem

    Training 4: "What will happen next?"

- The teacher reads the book.
- The teacher leads brainstorming about different ways to extend the story.
- The teacher gives each child a sheet of Scaffolded Writing paper and asks each child to say what he/she is going to draw/write. The teacher prompts the use of the stem.
- The teacher scaffolds each child's drawing/writing according to that child's ZPD.
- When children finish, they read their extension to a friend.
- The teacher collects the sheets and makes a class book, which is read to the class, and then places the book in a Buddy Reading tub.

Increasing the Challenge - Story Extensions

• As children grow, they will no longer be dependent on having a stem to help them remember pieces of the story. Have children say what they think will happen next without a stem. Books such as I Went Walking; Edward the Emu; Feast for 10; Good Night, Gorilla; The Mitten; Rosie's
Walk; and Mrs. Wishy-Washy are perfect for extending the story this way. Say to the children, "Turn to your friend and say what you think would happen next." Have children share twice before drawing and writing.
• When children are ready, they can write multiple sentences for their extension.

Predictions

Predicting has been found by many researchers to be a skill necessary for children to become fluent readers. Research indicates that instruction in comprehension strategies has a positive impact on children's ability to use these strategies [e.g., 9]. One of the more important aspects of comprehension is metacognition , or the ability to analyze and think about the strategies used in understanding text. Fluent readers naturally think about what they are reading, including trying to outguess the author of

the story and then confirm their predictions and inferences about the characters as the story progresses. Prediction and inference are late-developing comprehension skills because they require a great deal of knowledge of story grammar, and active-listening skills, not to mention the cognitive self-regulation necessary to work on these ideas and compare what you predicted or inferred with what happens in the subsequent text. Children have to have a sense of the storyline and how it unfolds to be able to make text-based predictions. Without this knowledge, children make simple connections between their own lives and the characters' situation and actions, but they are not able to take the perspective of the character or make predictions and inferences based on the text they are reading. It is this more sophisticated level of prediction and inference that children have to learn in order to become skilled readers. We do not expect text-based predictions and inferences to appear until first or second grade. However, with the support of teachers, shared activity with peers, and mediators, children can begin to practice making predictions in preschool at a beginning level.

Predictions

Structure of Predictions

Time Block

Predictions occurs during the Small Group Literacy Block.

Materials

• **Series or short chapter books** — Choose books that are part of a series, or a short chapter book (see Teacher Preparation below).

• **Predictions Story Lab Card**

• **Sticky notes** — To mark the places in the book where you will stop and ask children to make predictions

Teacher Preparation

• Choosing the book: If you choose a book from a series, the title you select for Predictions should not be a title you have read before (a familiar book would prevent children from authentically making predictions because they already know what will happen in the story). However, you should have previously read at least one book in the series so children are familiar with the characters, giving them more background knowledge with which to make predictions.

- **Some good book series for Predictions include:**

- Curious George books, by H. A. Rey

- Little Critter books, by Mercer Mayer

- Froggy books, by Jonathan London

- Clifford books, by Norman Bridwell

- Once you think children understand how to make predictions, you can choose simple chapter books to read from, one chapter at a time. **Some good chapter books include:**

- Frog and Toad books, by Arnold Lobel (the chapters are all different, so they are like small storybooks put together in a chapter book)

- Mr. Putter books, by Cynthia Rylant (a general problem in the story is resolved bit by bit in each chapter)

• Before you read the book to the children, identify two or three places where the reader doesn't know what will happen next. Mark these places with a sticky note so you will remember to stop and facilitate

predictions at each place you marked.

Flow of Predictions

1. Using a new book from a series with familiar characters or a short chapter book, the teacher identifies three or four places in the book to stop and have children predict what might happen next or make inferences about what the main characters are thinking or feeling.
2. The teacher brings out the Predictions or Inferences mediator card and briefly orients the children to the card by reminding them that the Predictions mediator "helps us remember to think about what might happen next in the story" and the Inferences mediator "reminds us to think about what [character] might have been thinking and feeling."
3. The teacher reads the book's title and the names of its author and illustrator, pointing out that this story is related to other stories they've read before about the same character (or briefly refreshing children's memory of previous chapters).
4. The teacher begins to read the story, and stops reading at one of the designated places to ask children the appropriate questions.
5. Children turn to their friends and answer the question. The teacher signals when it is time to stop and summarizes the children's responses before moving on.
6. The teacher reads the next section of text and stops at the point at which children can evaluate whether their predictions or inferences were correct. Children turn and tell a friend whether their prediction or inference "came true" and discuss why it might not have, if it didn't.
7. The teacher repeats the process of reading, stopping, and discussing the predictions or inferences.

Purpose of Predictions

For children to:

- Practice remembering on-purpose (deliberate memory)
- Make use of listening-comprehension strategies (children must draw on all the skills they have developed in Active Listening, Connections, Vocabulary, Visualization, and Story Grammar)
- Learn and apply logical-thinking skills to make predictions and inferences to figure out what will happen next in a story
- Strengthen oral language skills and build vocabulary by using words to describe what children see in their mind
- Experience listening to different genres of literature and develop a love of reading
- Practice conversing with peers and engaging in positive social interaction

Increasing the Challenge - Predictions

• Increase the challenge level by reading short chapter books.

Story Grammar

A number of research studies have looked at the effect of instruction in story structure (story grammar) and reading comprehension in a variety of groups of children. All have found that direct instruction in story grammar improves children's recall of a story. Studies of story grammar with children with learning disabilities and language delays show that it is particularly useful in providing a cognitive orienting structure for learning. From the Vygotskian perspective, story grammar is an outgrowth of storytelling and is used to promote the development of deliberate memory, logical thinking, and self-regulation. Story grammar helps children learn about the common patterns within stories, how to sequence events in a logical way, and why a specific sequence occurs. Children learn to think about which story events are mutually exclusive, and why certain characters act in a predictive way. Vygotskians expect children to grow in their ability to recall stories and develop the ability to think logically.

Story Grammar

Increasing the Challenge - Story Grammar

• Alternate choral response with turn and talk: Once children are familiar with the activity, you can vary the participation style. Instead of having children always retell the story chorally, you can ask them to turn and talk with a partner and retell the story looking at the sequenced Story Event Picture Cards. You can scaffold this to be one event at a time ("Look at this Story Event Picture card; what was happening at the beginning of the story? Turn and tell a friend"), or children can retell the entire story with a partner looking at the Story Event Picture Cards ("Talk with a friend and say what happened first, and then what happened, and then what happened in the story, looking at these Story Event Picture Cards to help you remember"). Children can talk with one buddy for the first several events, and then Double Talk, turning and talking with another buddy for the last set of events.
• Put out Story Event Cards, the book and Forgetful Frankie as a Free Choice activity —Children can help Forgetful Frankie sequence the events and retell the story. Small tally marks or numerals can be on the back of Story Event Picture Cards to help children "check" their work, and they can use the book as a resource to confirm

Purpose of Story Grammar

For children to:

- Practice remembering on-purpose (deliberate memory)
- Use other-regulation to practice skills
- Learn that making mistakes is a part of learning and that we learn from our mistakes
- Make use of listening-comprehension strategies

- Develop beginning logic skills by thinking about the story in a systematic way
- Develop beginning summary skills by recalling the main events, rather than remembering the detail from a specific picture or the exact words in the text
- Use the book to check facts about the story
- Strengthen oral language skills and build vocabulary; use words to describe the setting, characters, and events
- Experience listening to different genres of literature and develop a love of reading
- Practice conversing with peers and engaging in positive social interaction
- Practice a new participation style — taking turns in a group and building on another person's ideas (beginning discussion-group skills used in elementary school)

Flow of Story Grammar

1. The teacher shows children the Story Grammar mediator card and briefly orients the children: "This helps us know to pay attention to the story grammar so we can help Forgetful Fred/Fiona remember the story." The Forgetful Fred/Fiona puppet nods in agreement.
2. The teacher reads the title of the book and then reads the book all the way through without stopping.
3. The teacher asks Forgetful Fred/Fiona to remember and name the characters and describe the setting. Forgetful Fred/Fiona answers with a combination of correct and incorrect responses. Children respond to errors by making needed corrections, and responding chorally.
4. The teacher places the Story Grammar pieces on the flannel board and asks Forgetful Fred/Fiona to tell the events of the story in order. Forgetful Fred/Fiona remembers some events in order but makes a few mistakes by naming events out of sequence. Children respond to errors by making needed corrections, turning to tell to friend or responding chorally.
5. After each correction, the teacher signals that it is time to stop talking and summarizes the correct answers.

Suggested Modifications for Special Education, ELL and Gifted Students

• At the beginning of the year, teachers with many 3-year-olds, children with special needs, or dual-language learners will find that these children need almost twice as many sequential exposures to a book in order to learn. As children's self-regulation or their proficiency in English grows, they may need fewer sequential exposures to a book and can have more time between readings.

• Children who fall within the developmental trajectory for their age are able to engage in the activity appropriately, making progress along the trajectory and growing in the activity without much teacher support.

• Some children may still have difficulty not blurting out during the reading or attending to the story. This is not a serious problem and will correct itself over time as that child's level of self-regulation grows. Use the scaffolds described in the Additional Teacher Scaffolds appendix to signal the child using nonverbal signals and to provide support.

• Children who are shy or have difficulty talking may need help finding a partner and getting started. The teacher who is not leading the group should make sure the children on the edges of the group are participating.

• To support dual-language learners, translate the discussion questions on the mediator cards into the child's home language. If you cannot do this, have one of the parents tell you how to say the questions. In addition, send home the book, either in the child's home language or in English. Let parents know that they can translate the book or read it to the child ahead of time to help the child understand it. Send home the discussion questions so the child can prepare his answer to the question in English or in his home language. During the discussion, if the child needs the book to communicate, let the child point and gesture if he cannot communicate any other way.

• When individual children are not to making progress relative to other children in the class or are not actively participating

in activities, they need extra support. Other children may be making faster progress than their peers and need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's growth and development. The Developmental Trajectories tab will help you identify a child's current independent level and target skills to focus on, and the Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Enduring Understandings

Each of the activities in Story Lab has a specific purpose, but all Story Lab activities support the development of the major skills listed below.

For children to:

• Listen with a purpose

• Practice remembering on-purpose (deliberate memory) — recalling vocabulary, story events, and story elements (setting, characters, etc.)

• Expand working memory — holding of more than one idea in mind at a time (remember both the storyline and something from the child's own background that relates to the story, or compare several scenes from the story)

• Strengthen oral language skills and build vocabulary; expand vocabulary use so that new vocabulary becomes part of spontaneous speech

• Experience listening to different genres of literature and develop a love of reading

• Practice conversing with peers and engaging in positive social interaction

Essential Questions

Starting open-ended questions:

1. What would happen if...

2. What do you think about...

3. I wonder...

4. In what way...

5. Tell me about...

6. How can we...

7. What would you do...

8. How did you...

9. Why do you think…

After asking your child an open-ended question, allow quiet time for them to think before responding to your comment or question. Young children often need extra time to decide what to say and how to say it.

Summative Assessment and/or Summative Criteria

Active Listening

Ages 3 4 5	Listening Comprehension in Active Listening
	— Attends to and enjoys listening to book
	— Responds to story. Smiles and laughs when appropriate
	— Answers questions by copying response of another child
	— Answers questions "What do you like about my book?" and "What was your favorite part?" with a few words when prompted after story is over
	— Answers question "What was interesting?" with a few words when prompted after book is read
	— Notices when buddy's answer doesn't make sense and corrects buddy ("That isn't from this story" ... "There is no mouse in this story")
	— Remembers question on mediator card and answers without prompting when book is read
	— Answers questions with several sentences showing an understanding of the text

Ages 3 4 5	Oral Language in Active Listening
	— Doesn't seem to understand question related to book, answering with own preferences or thoughts (e.g., "My mommy is coming to pick me up")
	— Points to or labels picture from the book ("dog," "cat," "box")
	— Copies or repeats other children's answers to question
	— Points or gestures a response to "What did you like?" or other comprehensivion questions
	— Answers "What I liked about the book..." or "My favorite part was..." independently
	— Describes or comments on book without complete sentence
	— Describes or comments on book with complete sentence ("She ran fast")
	— Answers "What was interesting?" independently
	— Discusses several things in book in answer to questions (e.g., "The cat ran, and then saw the mouse")
	— Uses new vocabulary words in answer
	— Uses language from the book ("He was trembling and nervous first")
	— Discusses reason for answer. Reflects on own thinking

Ages 3 4 5	Self-Regulation in Active Listening
	— Attends to book — Imitates teacher (repeats words, follows along with pretending, etc.) — Imitates other children's answers — Blurts out ideas and thoughts when thought of — Talks at same time as buddy — Sustains attention; ignores distractions by other children — Waits to answer questions when teacher prompts — Needs support to re-establish attention or to stop talking — Answers chorally in rhythm of exchange — Turns to buddy to answer question and turns back to teacher without prompting — Takes turns talking with buddy. Listens to and responds to buddy's answer or response — Listens to answers of other children in group — Can add onto previous response given by another child in group — Adjusts to different participation styles within same activity independently. Can answer chorally for one answer and turn to buddy and talk for another

Character Empathy

Ages 3 4 5	Oral Language in Character Empathy
	— Points to character — Names character — Gives one-word response, repeating teacher's words ("Happy") — Doesn't seem to understand question in relation to book. Says something about self — Copies or repeats another child's answer — Uses simple sentence to describe the emotion ("He's happy") — Uses several sentences to describe the emotion ("He is smiling, he's happy") — Can say why character is feeling the emotion — Knows two different characters can feel different emotions — Can say why different characters feel different emotions

Ages 3 4 5	Self-Regulation in Character Empathy
	— Attends to book
	— Imitates teacher (repeats words, follows along with pretending, etc.)
	— Imitates other children's answers
	— Blurts out ideas and thoughts when thought of
	— Talks at same time as buddy
	— Sustains attention; ignores distractions by other children
	— Waits to answer questions when teacher prompts
	— Needs support to re-establish attention or to stop talking
	— Answers chorally in rhythm of exchange
	— Turns to buddy to answer question and turns back to teacher without prompting
	— Takes turns talking with buddy. Listens to and responds to buddy's answer or response
	— Can wait turn to answer when prompted by mediator (Talking Stick or Raise Your Hand)
	— Listens to answers of other children in group
	— Can add onto previous response given by another child in group
	— Adjusts to different participation styles within same activity independently. Can answer chorally for one answer and turn to buddy and talk for another

Ages 3 4 5	Listening Comprehension in Character Empathy
	— Attends to and enjoys listening to book
	— Responds to story. Smiles and laughs when appropriate
	— Copies emotion the teacher makes only when teacher prompts to do so
	— Copies emotion displayed by teacher or peers
	— Anticipates emotion by displaying it before teacher or peers do
	— Is able to other-regulate and identify when wrong emotion is displayed
	— Is able to label emotion during discussion and display correct emotion
	— Is able to recognize two characters having different emotions in same situation
	— Can explain why two different characters are having different emotions in same situation

Connections

Ages 3 4 5	Listening Comprehension in Connections
	— Attends to and enjoys listening to book — Responds to story. Smiles and laughs when appropriate — Copies connection given by another child — Picture or word triggers a connection, usually to own experience — Is able to think of a connection to own recent experience — Is able to think of a connection to world or text that is recent — Is able to think of a connection to something that happened in past — Can think of more than one connection — Can categorize connections of others — Can categorize own connection — Can produce specific type of connection when asked

Ages 3 4 5	Oral Language in Connections
	— Doesn't seem to understand question in relation to book. Says something about self — Points to picture as a connection — Labels picture as a connection — Gives one-word response as a connection (e.g., "apples") — Copies or repeats another child's answer — Answers Connections question with what he/she likes or what part he/she likes (the Story Lab question from Active Listening) — Uses simple sentence to describe the connection ("I like red apples") — Uses several sentences to describe the connection ("Once I went to a farm and we picked apples") — Comments on other children's connections ("I did that, too") — Uses new vocabulary words when explaining connection — Uses book-like language when describing connection — Explains rationale for categorizing connection

Ages 3 4 5	Self-Regulation in Connections
	— Attends to book — Imitates teacher (repeats words, follows along with pretending, etc.) — Imitates other children's answers — Blurts out ideas and thoughts when thought of — Talks at same time as buddy — Sustains attention; ignores distractions by other children — Waits to answer questions when teacher prompts — Needs support to re-establish attention or to stop talking — Answers chorally in rhythm of exchange — Turns to buddy to answer question and turns back to teacher without prompting — Takes turns talking with buddy. Listens to and responds to buddy's answer or response — Listens to answers of other children in group — Can add onto previous response given by another child in group — Adjusts to different participation styles within same activity independently. Can answer chorally for one answer and turn to buddy and talk for another

Story Extensions

Ages 3 4 5	Listening Comprehension in Story Extensions
	— Attends to and enjoys listening to book — Responds to story. Smiles and laughs when appropriate — Shows recognition of stem by gesturing or pointing to picture — Repeats stem with teacher or another child — Can remember parts of stem when prompted after story is over — Copies verbal response of another child — Repeats stem and answer from book — Repeats stem and adds an ending from own experience; makes a connection that is plausible — Repeats stem and adds words showing understanding of text — Uses stem to add more ideas that make sense with text and that relate to story

Ages 3 4 5	Oral Language in Story Extensions
	— Points or gestures to what was liked, to part liked, or what was interesting — Gives the name of something from the book (e.g., "dog," "cat," "box"), but to complete stem — Answers what is liked or what part was liked (easier Story Lab questions) — Repeats or copies other children's answers to stem — Connects to own experience ("I like red apples") — Changes stem to "I am going to..." — Completes stem with a single word — Uses book-like language and says whole stem ("Edward wished he was a snake") — Remembers more than one fact or one idea from the book ("The apples are red or yellow and grow on trees") — Adds on to stem and extends the story — Uses new vocabulary words in stem ("He ate through two slices of baloney")

Ages 3 4 5	Self-Regulation in Story Extensions
	— Attends to book — Imitates teacher (repeats words, follows along with pretending, etc.) — Imitates other children's answers — Blurts out ideas and thoughts when thought of — Talks at same time as buddy — Sustains attention; ignores distractions by other children — Waits to answer questions when teacher prompts — Needs support to re-establish attention or to stop talking — Answers chorally in rhythm of exchange — Fails to remember stem, begins to act as if doing Play Planning — Turns to buddy to answer question and turns back to teacher without prompting — Takes turns talking with buddy. Listens to and responds to buddy's answer or response — Waits for paper and pencil and draws when prompted — Listens to answers of other children in group — Adjusts to different participation styles within the same activity independently. Can answer chorally for one answer and turn to buddy and talk for another — Draws and/or writes using stem without being prompted

Ages 3 4 5	Scaffolded Writing during Story Extensions
	— **PL = plan.** Has idea of a plan or what to draw/write in advance — **P = picture.** Represents idea or message with representative picture of his/herself and the objects involved in idea being written about — **M = message matches the teacher's lines.** Creates message using stem ("I am going to…") and when teacher writes the message, slows words to match teacher's writing — **L = lines.** Makes lines to represent words and has voice-to-line match — **IS = initial sounds.** Writes a letter to represent initial sound heard in the word that is close to correct sound — **ES = ending sounds.** Writes a letter to represent ending sound heard in the word that is close to correct sound; also represents the word's initial sounds correctly — **MS = medial sounds.** Writes a letter to represent medial sound heard in the word that is close to correct sound; also represents word's initial and ending sounds correctly — **AP = alphabetic principle.** Represents each of the consonant and some vowel sounds in word in the order in which they appear in word

Resources

[Tools of the Mind Recommended Book List](#)

Standards

ELA.PK.L.PK.1	Begin to understand the conventions of standard English grammar when speaking du interactions and activities.
ELA.PK.L.PK.4	Begin to determine the meaning of new words and phrases introduced through presc reading and content.
ELA.PK.L.PK.5	With guidance and support, explore word relationships.
ELA.PK.L.PK.6	Use words and phrases acquired through conversations, activities and read alouds.
ELA.PK.RF.PK.1	Begin to demonstrate understanding of basic features of print.
ELA.PK.RI.PK.10	Actively participate in read aloud experiences using age appropriate information bool individually and in small and large groups.
ELA.PK.RL.PK.1	With prompting and support, ask and answer key elements in a familiar story or poer
ELA.PK.RL.PK.2	With prompting and support, retell familiar stories or poems.
ELA.PK.RL.PK.3	With prompting and support, identify characters, settings, and major events in a fami

story.

ELA.PK.RL.PK.4	With prompting and support, ask and answer questions about unfamiliar words in a story or poem read aloud.
ELA.PK.RL.PK.6	With prompting and support, identify the role of author and illustrator in telling the story.
ELA.PK.RL.PK.7	With prompting and support, using a familiar storybook, tell how the illustrations support the story.
ELA.PK.RL.PK.10	Actively participate in read aloud experiences using age appropriate literature in individual, small and large groups.
ELA.PK.SL.PK.1	Participate in conversations and interactions with peers and adults individually and in small and large groups.
ELA.PK.SL.PK.2	Ask and answer questions about a text or other information read aloud or presented orally.
ELA.PK.SL.PK.3	Ask and answer questions to seek help, get information, or follow directions.
ELA.PK.SL.PK.4	Begin to describe familiar people, places, things, and events and sometimes with detail.
ELA.PK.SL.PK.5	Use drawings or visual displays to add to descriptions to provide additional detail.
ELA.PK.SL.PK.6	With guidance and support, speak audibly and express thoughts, feelings, and ideas.

Small Group: Mathematics and Science

Content Area: **Sample Content Area**
Course(s):
Time Period:
Length:
Status: **Published**

Small Group Mathematics and Science Overview

The Tools of the Mind curriculum emphasizes the development of self-regulation, executive function skills, and foundational academic skills through play-based and socially interactive activities. The small group math and science component within the curriculum is designed to help young children build essential mathematical concepts and skills in an engaging, developmentally appropriate manner. It fosters curiosity, critical thinking, and foundational scientific knowledge in young children while enhancing their social, cognitive, and language skills.

Attribute Game

In Attribute Game, children work in a small group and then in pairs to sort objects by different attributes — size, shape, color, and number of sides. Attribute Game is introduced at the beginning of the year and then continues increasing in challenge through the school year. As the year progresses, Attribute Game grows with the children. Each attribute is introduced, one at a time. The game then transitions from group play to a partnered play format, decreasing the support of shared activity as children work at their own pace with the support of a partner. The goal of the Attribute Game is to help children isolate a specific attribute and hold it constant. Then the game asks the child to change attributes and exercise inhibitory control over the first attribute as they attend to a new one. Mediator

cards are used to help children remember the attribute that is to be kept in mind while sorting each time. Sorting is considered an important mathematics skill and is part of the standards for mathematics outcomes in kindergarten. Young children often have difficulty sorting because they are not able to isolate attributes and hold that characteristic constant over several objects. In Attribute Game, children learn to isolate and hold a specific attribute in their mind and change to another attribute to sort the same set of objects in different ways, building cognitive flexibility and inhibitory control.

Time Block

Attribute Game occurs during the Small Group Math/Science Block.

Structure of Attribute Game-Group Play

Materials

• Attribute Superhero mediator cards— Rainbow Superhero (sorting by color), Shape Superhero (sorting by shape), Ruler Superhero (sorting by size), Calculator Superhero (sorting by number of sides). This is also the suggested order for rolling out each attribute: begin with Rainbow (color) in the fall, add Shape in the late fall, add Ruler (size) and Calculator (number of sides) in Winter. By spring, children play with all attributes in
a partner play variation.

Rainbow Superhero
I sort by color!
(Fall)

Shape Superhero
I sort by shape!
(Late Fall)

Ruler Superhero
I sort by size!
(Winter)

Calculator Superhero
I sort by number
of sides!
(Winter)

• Sorting discs — Paper plates or 6-inch white discs. Depending on the attribute children are sorting by, they will need a different number of discs to sort onto—3 or 4. If your table space is large and children can't reach all the discs for sorting, you can have two sets, one at each end of the table.
• Attribute Shapes — Provide each child with a set of 5-10 Attribute Shapes in a variety of sizes, shapes, and colors (see Materials Kit or eTools; shown).
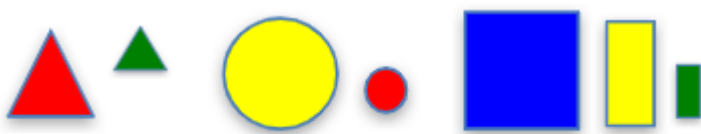
Classroom Setup and Teacher Preparation

• Lay the sorting discs on the table. Place on each disc an example Attribute Shape for the attribute children will be sorting by that round of play. For example, if children are sorting by Color in this

round, place one Attribute Shape of each color on each disc. Children will know to place red Attribute Shapes on the disc with a red shape, yellow Attribute Shapes on the disc with a yellow shape, etc.

Structure of Attribute Game-Partner Play
Materials:

• Sorting discs — Provide four discs for each pair of children in Partner Play.
• Attribute Superheroes — Give each pair of children all four Attribute Superheroes, in addition to a collection of Attribute Shapes.

Flow of Attribute Game-Group Play
Sorting by Color: Introducing Rainbow Superhero

Children play this group version to learn how to play the game, and how to sort by *color*.
1. Show children the Rainbow Superhero. The Rainbow Superhero can only see colors, and not anything else (not size, not shape...just colors). Tell children when they see Rainbow Superhero, they, too, will become a Rainbow Superhero with the magical power to see only colors!
2. Ask children to look at the Attribute Shapes on the table and say the names of the colors they see. Point to the 4 sorting discs you've put on the table, each with an attribute block of a different color. Have the children repeat the names of the colors on each disc.
3. Give each child some Attribute Shapes and tell the children it's their turn; now they have the same superpower as Rainbow Superhero! Tell the children they can see only color and will sort the Attribute Shapes onto the sorting discs by color—just the way Rainbow Superhero would do it.
4. All of the children place their Attribute Shapes onto the appropriate sorting discs, using private speech to name colors as they sort. All the yellow Attribute Shapes are placed on one disc, all the red Attribute Shapes onto another disc, etc.
5. Together, check and see if the group agrees all the Attribute Shapes have been accurately sorted by color.
6. Children clear the Attribute Shapes from the sorting discs and return them to you. Again, place one Attribute Shape of each color on a sorting disc (you may want to move the location of the discs/colors for variety). Repeat steps 3-5 to play again.
Sorting by Color & Shape: Introducing Shape Superhero

Children play this group version to learn how to sort by *shape*, as well as color.

1. Show children the Shape Superhero. The Shape Superhero can only see shapes, and not anything else (not color, not size...just shape). Tell children when they see Shape Superhero, they, too, will become a Shape

Superhero with the magical power to see only shapes!

2. Ask children to look at the Attribute Shapes on the table and say the names of the shapes they see (circle, triangle, square, rectangle). Point to the 4 sorting discs you've put on the table, each with an attribute block of a different shape. Have the children repeat the names of the shapes on each disc.

3. Give each child some Attribute Shapes and tell the children it's their turn; now they have the same superpower as Shape Superhero! Tell the children they can see only shapes and will sort the Attribute Shapes onto the sorting discs by shape—just the way Shape Superhero would do it.

4. All of the children place their Attribute Shapes onto the appropriate sorting discs, using private speech to name shapes as they sort. All the square Attribute Shapes are placed on one disc, all the circles on another disc, etc.

5. Together, check and see if the group agrees all the Attribute Shapes have been accurately sorted by shape.

*Note: Once children are comfortable sorting by shape, vary game play so children are at times sorting by shape, and at times by color, over the course of multiple rounds of play.

6. Have children clear the Attribute Shapes from the sorting discs and return them to you. Set up the sorting discs for the attribute children will play by in the next round. Repeat steps 1-5 to play again, using either the Shape or Color Superhero.

Sorting by Color, Shape & Size: Introducing Ruler Superhero

.t's

l

Children play this group version to learn how to sort by *size*, as well as color and shape.

1. Show children the Ruler Superhero. The Ruler Superhero can only see size, and not anything else (not colors, not shape...just size). Tell children when they see Ruler Superhero, they, too, will become a Ruler Superhero with the magical power to see only size!

2. Ask children to look at the attribute Attribute Shapes on the table and say the sizes of the Attribute Shapes they see (small, medium and large). Point to the 3 sorting discs you've put on the table, each with an Attribute Shape of a different size. Have the children repeat the names of the sizes of the Attribute Shapes on each disc.

3. Give each child some Attribute Shapes and tell the children it's their turn; now they have the same superpower as Ruler Superhero! Tell the children they can see only size and will sort the Attribute Shapes onto the sorting discs by size— just the way Ruler Superhero would do it.

4. All of the children place their Attribute Shapes onto the appropriate sorting discs, using private speech to name sizes as they sort. All the large Attribute Shapes are placed on one disc, all the small Attribute Shapes on another disc, etc.

5. Together, check and see if the group agrees all the Attribute Shapes have been accurately sorted by

size.

*Note: Once children are comfortable sorting by size, vary game play so children are at times sorting by size, and at times by shape or color, over the course of multiple rounds of play.

6. Have children clear the Attribute Shapes from the sorting discs and return them to you. Set up the sorting discs for the attribute children will play by in the next round. Repeat steps 1-5 to play again, using either the Ruler, Shape or Color Superhero.

Sorting by Color, Shape, Size & Number of Sides: Introducing Calculator Superhero

Children play this group version to learn how to sort by *number of sides*, as well as color, shape and size.

1. Show children the Calculator Superhero. The Calculator Superhero can only see the number of sides, and not anything else (not size, not shape...just the number of sides). Tell children when they see Calculator Superhero, they, too, will become a Calculator Superhero with the magical power to see only the number of sides!

2. Ask children to look at the Attribute Shapes on the table and identify the number of sides of the Attribute Shapes they see (a circle can have infinite, 0 or 1 side—select the one that matches the district's math program—we'll say 1 for simplicity; 1, 3 or 4 sides). Point to the 3 sorting discs you've put on the table, each with an attribute block with a different number of sides. Have the children again say how many sides the Attribute Shapes have on each disc.

3. Give each child some Attribute Shapes and tell the children it's their turn; now they have the same superpower as Calculator Superhero! Tell the children they can see only the number of sides the Attribute Shapes have, and will sort the Attribute Shapes onto the sorting discs by number of sides—just the way Calculator Superhero would do it.

4. All of the children place their Attribute Shapes onto the appropriate sorting discs, using private speech to name the number of sides of each shape as they sort. All the rectangles and squares (4 sides) are placed on one disc, all the triangles (3 sides) on another disc, etc.

5. Together, check and see if the group agrees all the Attribute Shapes have been accurately sorted by number of sides.

*Note: Once children are comfortable sorting by number of sides, vary game play so children are at times sorting by number of sides, and at times by size, shape, or color, over the course of multiple rounds of play.

6. Have children clear the Attribute Shapes from the sorting discs and return them to you. Set up the sorting discs for the attribute children will play by in the next round. Repeat steps 1-5 to play again, using either the Ruler, Shape or Color Superhero.

* Provide scaffolding to children who are having difficulty by supporting their use of private speech.

* After children have been introduced to each game, have them remind you (or a friend) what attribute each superhero can see.

Flow of Attribute Game-Partner Play

Children work in pairs and play the game at their own pace. Children play this version after they are secure in Group Play sorting for all attributes.

1. Give each pair their own set of sorting discs and Attribute Shapes, and one Attribute Superhero to get started.
2. Encourage children to tell each other what their Attribute Superhero sees.
3. Children work together to sort their Attribute Shapes, using private speech to name the attributes by which they are sorting.
4. When children are finished, encourage them to check their work. Give them the next Attribute Superhero by which to sort.
* Shift from Group Play to Partner Play to increase the challenge. Partner Play requires children to pay attention only to the attribute they are sorting by, ignoring the distraction of other children's attributes and "private speech." Set children up for success by creating sufficient space between each pair, and encouraging peer scaffolding so children remind each other to pay attention to the attribute at hand.
* As with all Tools activities, children should work with partners at all different skill levels, and many different partners over time.

Increasing the Challenge of Attribute Game-Group Play and Partner Play

Group Play:

• As soon as most children are familiar with sorting by color, introduce the next attribute. When most children are familiar with that attribute, use multiple Attribute Superheroes in different rounds within a single game session. Continue to have children sort by one attribute at a time, but they might sort by color in the first round, shape in the second round, etc.
• Introduce Partner Play.

Partner Play:

• At the beginning of the game, give each pair of children all the Attribute Superhero cards. Pairs choose which Attribute Superhero to sort by, playing at their own pace.

I Have Who Has? Math

The I Have—Who Has? (IHWH) games are used to teach fluency for naming many concepts in the Tools program. The first math game is I Have—Who Has? Colors, introduced in the beginning of the year. In this game, children scan their cards for a match for the played card in a game designed to develop fluency in naming colors. Children manage multiple cards and increase the speed of the game in a small-group activity that supports concept, memory, and language development. The next games introduced are Shapes and Numerals. I Have—Who Has? games have two variations — Group Play and Individual Play — which allows responsibility to gradually be handed over to children as the teacher observes children's familiarity with both the content and structure of the games. In the Group Play version, the children answer together, and in the Individual Play version, children each have individual cards and each child plays as an independent member of the group. As the year progresses, math I Have—Who Has? games grow along with the children. In the late fall, children play Colors. Next, Shapes and Numerals are introduced. By spring, only Numerals continues. Many psychologists consider learning to play by the rules an important social-emotional skill and a type of peer interaction that emerges in kindergarten and first grade. For many preschool children, the I Have Who Has activities will be the very first games they learn to play that they will be able to play on their own.

Time Block

I Have—Who Has? Math games are played during Small Group Math/Science Activities Block. They can also be played during the Free Choice Block.

Structure of I Have Who Has? Math

Materials

• I Have—Who Has? game cards — With an icon on one side to signify which side should face up (see specific I Have—Who Has? game sections for the different variations of cards; Colors cards shown as example)
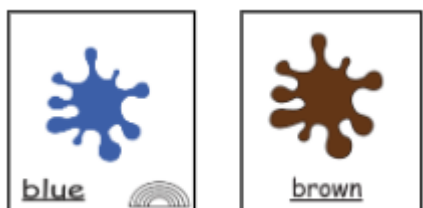
• Discard mediator — A sheet of paper or paper plate to act as a central holding place for discarded cards. The last card played will be on top, non-icon-side-up, providing mediation for children who need the visual cue to match
• Cheetah mediator card — For the Cheetah Challenge (shown)

Classroom Setup and Teacher Preparation

• IHWH games are played during Small Group times, either around a table or with children seated in a circle on the floor. The advantage of a small group is that children have more than one card to monitor and play, are closer to the discard pile and the card to be matched, and can better monitor and observe one another's cards to provide support through shared activity.
• Whenever you introduce a new variation of the game, have children play the Group Play version first. During the Group Play version, the teacher controls the cards and the children respond as a group, chorally. Once children show that they can point to the right cards during Group Play, then you can play the Individual Play version, in which each child is given a few cards and each plays as an independent member of the group.
• *Setup for Group Play:* Place the discard mediator in the middle of the group where all children can reach it. Lay out all of the cards facing the children, each card icon side up, so all children can see all the cards.
• *Setup for Individual Play*: Place the discard mediator in the middle of the group where all children can reach it. Deal the cards to all the players, each card icon side up.

Flow of I Have Who Has? Math-Group Play

In the Group Play variation, used to introduce the activity to children, only *you* touch the cards. The children repeat the words after you and point to the correct card.

1. Place all the cards flat on the table, so everyone can see them. Place the cards with the icon side facing up.
2. Pick up any card and say what is on the icon side of the card: "I have _____." Point to the picture on the card as you say this. Prompt children to repeat with you: "I have _____."
3. Turn the card over and point to the picture on the other side. Say, "Who has_____?" Prompt children to repeat with you: "Who has _____?"
4. Lay the card icon side down on the discard mediator. Say, "This card reminds us to look for _____, if we forget."
5. Ask children to point to the card on the table that has the letter matching the card on the discard mediator. Make sure everyone points.
6. Pick up this new card, and repeat steps 2-5 until you have played all the cards.
* Put a few cards icon-side-down and ask children to check you. This will help children learn how to set up the game independently in the future.
* Point to the icon and have children tell you what it means (e.g., "we're paying attention to shapes").
* During Group Play, help children internalize the rules. Remind them that they play the game by scanning the cards to see if they have a match. In Individual Play, they will scan their own cards, and then scan peers' cards if they didn't have the match.
* Encourage a child to ask for help from peers when they don't remember a color, shape or numeral, or don't see a match. Remember the benefits of shared activity in a small group and the importance of children's private speech; if a child receives support from a peer to find the match, have the child repeat the name of what they're looking for to help them learn and remember it.
* Within each session of play, play the game a couple of times in a row, increasing the pace of the game to support fluency building and engagement.

Flow of I Have Who Has? Math-Individual Play

The Individual Play variation is introduced after children have internalized the rules of the game during Group Play. Children now get their own set of cards and handle the cards during game play.

1. One child deals all the cards, with the icon side facing up, then begins the game by picking up any one of their cards and saying what is on the icon side of the card: "I have _____."
2. The child then turns the card over and says, "Who has _____?"
3. The child lays the card *icon side down* on the discard mediator.
4. All children look at their cards to see if they have a match. If they've looked at their own cards and failed to find a match, they may look at their peers and offer peer scaffolding by pointing or telling a friend (e.g, "You have red!").
5. The player with the matching card says, "I have _____," turns over the card, and asks, "Who has _____?" as they add the card to the pile on the discard mediator, *icon side down*.
6. Repeat step 5 until the children have played all the cards.
* Put a few cards icon-side-down and ask children to check you. This will help children learn how to set up the game independently in the future.
* Point to the icon and have children tell you what it means (e.g., "we're paying attention to shapes").
* During Group Play, help children internalize the rules. Remind them that they play the game by scanning the cards to see if they have a match. In Individual Play, they will scan their own cards, and then scan peers' cards if they didn't have the match.
* Encourage a child to ask for help from peers when they don't remember a color, shape or numeral, or don't see a match. Remember the benefits of shared activity in a small group and the importance of children's private speech; if a child receives support from a peer to find the match, have the child

repeat the name of what they're looking for to help them learn and remember it.
* Within each session of play, play the game a couple of times in a row, increasing the pace of the game to support fluency building and engagement.

Increasing the Challenge of I Have Who Has? Math

• When children are familiar with the Group Play Variation, introduce Individual Play.
• When children know the routine of Individual Play, introduce the Cheetah Challenge mediator. The cheetah icon reminds children to play as quickly as they can—as fast as a cheetah! The goal of the game is rapid recall, and playing faster is fun!

I Have Who Has? Math Game Variations

I Have Who Has? Colors

Specific Purpose: To become fluent in recognizing and naming colors

Materials: I Have Who Has? Colors cards -- The icon on the front of these cards is a rainbow, signifying that the name of the color is what children will pay attention to.

Group Play variation:
1. Help make sure all the cards are rainbow-side-up.
2. When the teacher holds up the card, say, "I have ___ " and say the name of the color.
3. When the teacher turns the card over, say, "Who has ___ ?" and say the name of the color.
4. Quickly point to the card with the same color.
Individual Play variation:
1. Lay your cards out, rainbow-side-up.
2. Listen for "Who has ____?"
3. Look at your cards to see if you have that color.
4. When you have a match, hold up your card and say "I have ____." Turn your card over and ask "Who has ____?"
5. Put your card on the discard mediator with the "Who has ___?" picture facing up.
6. Listen for the next card!

I Have Who Has? Shapes

Specific Purpose: To become fluent in recognizing and naming 2D shapes

Materials: I Have Who Has? Colors cards -- The icon on the front of these cards is a set of shapes,

signifying that the children will pay attention to shapes.
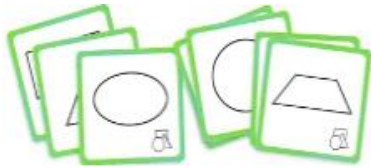
Group Play variation:
1. Help make sure all the cards are shape-side-up.
2. When the teacher holds up the card, say, "I have ___" and say the name of the shape.
3. When the teacher turns the card over, say, "Who has ___ ?" and say the name of the shape.
4. Quickly point to the card with the same shape.
Individual Play variation:
1. Lay your cards out, shape-side-up.
2. Listen for "Who has ____?"
3. Look at your cards to see if you have that shape.
4. When you have a match, hold up your card and say "I have ____." Turn your card over and ask "Who has ____?"
5. Put your card on the discard mediator with the "Who has ___?" picture facing up.
6. Listen for the next card!

I Have Who Has? Numerals

Specific Purpose: To develop vocabulary and become fluent in numeral recognition

Materials: I Have Who Has? Numeral cards -- The icon on the front of these cards is a calculator, signifying children will pay attention to numbers.

Group Play variation:

1. Help make sure all the cards are calculator-side-up.
2. When the teacher holds up the card, say, "I have ___" and say the number.
3. When the teacher turns the card over, say, "Who has ___ ?" and say the number.
4. Quickly point to the card with the same number.
Individual Play variation:
1. Lay your cards out, calculator-side-up.
2. Listen for "Who has ____?"
3. Look at your cards to see if you have that number.
4. When you have a match, hold up your card and say "I have ____." Turn your card over and ask "Who has ____?"
5. Put your card on the discard mediator with the "Who has ___?" picture facing up.
6. Listen for the next card!

Making Collections

In Making Collections, one child counts out a collection of counters to match the number of objects pictured on a card. The other child checks the accuracy of the first child's counting by placing the objects onto the pictures on the card, using one-to-one correspondence to determine whether the quantity of the collection is correct. The checker tells the other child when there are too many or too few, and the counter corrects the mistake. Then the children trade roles. Making Collections begins in late fall and continues throughout the school year. As the year progresses, Making Collections grows with the children. The children begin to use cards representing larger quantities, as well as cards that display quantities in more complex arrangements that make counting more challenging. Eventually, children will work with cards showing more than one kind of object. Children will be challenged to identify and count only the objects that correspond to a particular category of objects. To understand what numbers mean, children have to be able to do meaningful counting — that is, not just know the sequence of numbers (rote-counting), but use the sequence to count objects. By late fall, Tools children know how to rote-count from doing Timeline Calendar, so it is time to move them into meaningful counting. According to the research, most children are able to easily identify numbers 1–3 even as toddlers. That is why in Tools Pre-K we start with numbers under 5, to build on this intuitive knowledge. What children learn about numbers develops approximately in the following order:
• That spatial configuration is irrelevant in counting — meaning that a number stays that same number no matter how the objects being counted are arranged
• That the shape, color, or type of object being counted is irrelevant — meaning that the number stays that same number no matter whether you are counting green objects or red ones, dogs, cats, or squares
• That you figure out whether you are correct by matching — using *one-to-one correspondence*

Time Block

Making Collections occurs during the Small Group Math/Science Activities Block.

Structure of Making Collections

Materials
• Making Collections Object Cards — Cards depict collections of objects representing the numbers 1–10 (see Materials Kit or eTools; examples shown)
-Fall — Pictures are depicted in arrays
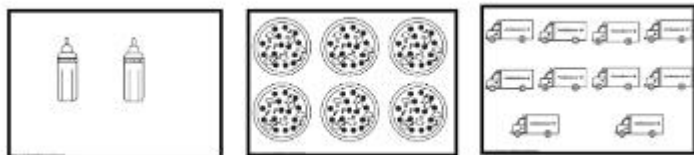
-Midyear — Pictures are not depicted in arrays
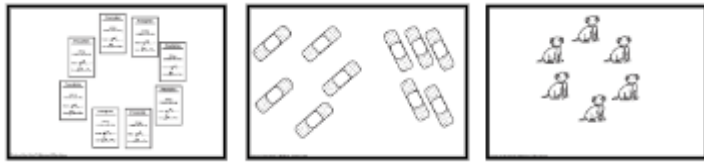
• Counters — Counting bears, poker chips, or other small manipulatives (all of one kind)
• Bowls — One for each pair of children; fill each bowl with enough counters to count out the highest number represented on the cards, plus a few extra
• Empty cups — For counting into; one for each pair of children
• Hand and Check cards — One of each card for each pair of children (shown)
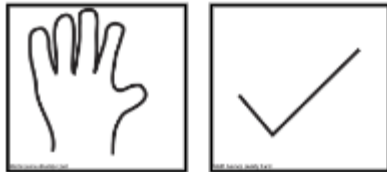
Classroom Setup and Teacher Preparation
• Children are in two small groups, each seated around a table (or two) and supported by one teacher. Each child is assigned a partner at a different skill level. Partners should sit next to each other or on either side of a corner of a table, not across from each other.
• Give each pair of children four or five Making Collections Object cards, a bowl of counters, and an empty cup. Choose cards related to your current play theme or to another pretend scenario you will refer to during the activity. Before you begin, set up the play context for children. For example, if an object card has pictures of eyeglasses to count, have children pretend to be eye doctors counting how many pairs of glasses their patients need. One child counts the number of glasses, and the other child checks to make sure "we have the right number of glasses."

Structure of Making Collections-Categories
Changes to Materials for Categories

• Making Collections Object cards — Pictures depicting two kinds of objects (examples shown)

Object Cards: Categories Transportation

Object Cards: Categories Animals
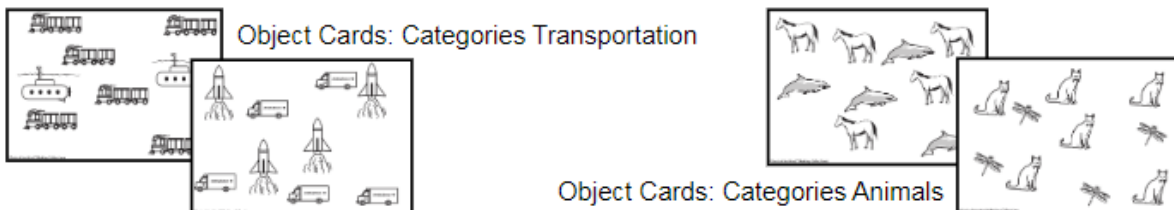
•Category cards — One set of three cards per pair of children (shown)

water   air   land
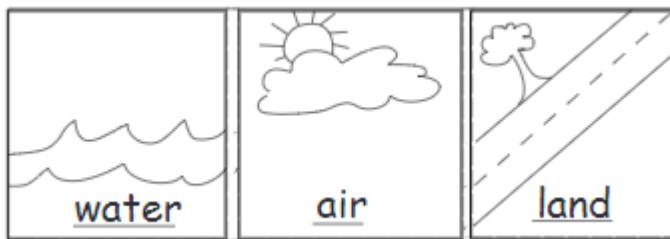
Classroom Setup and Teacher Preparation
• Setup and prep is the same as for the basic game, except you will also give each pair of children a set of three category cards.

Flow of Making Collections

1. Give each child in the pair either the Hand or the Check card, prompting children to say what it means they will do.
2. The Hand counts how many objects are pictured on the card and counts out that number of counters, moving them from the bowl into the cup. (The Hand does not place counters onto the pictures on the Object card.)
3. The Hand passes the cup and the Object card to the Check. To check the Hand's work, the Check takes the counters out of the cup and puts them onto the pictures on the Object card, using one-to-one correspondence.
4. The Check gives the Hand feedback: "You're right!" or "You don't have enough" or "You have too many."
5. The Hand can make corrections based on the Check's feedback, adding or taking away some counters. Then the Check checks again, again looking for a one-to-one correspondence of counters to pictures on the Object card.
6. The children put the counters back in the bowl, exchange Hand and Check cards, and take a new Object card to play again.
* Children should start with cards representing 1–3 objects.
* Let each pair work at its own pace and at its own challenge level. All children do not need to do the same card or number of objects at the same time.
*Circulate to support children in playing the game and in counting, making sure children are counting aloud. Confirm that they are using the correct rote-counting sequence ("1, 2, 3, 4 ...") and the correct private speech

Flow of Making Collections-Categories

1. Give each child in the pair either the Hand or the Check card, prompting children to say what it means they will do.
2. The Hand picks an Object card and turns over a Category card, talking aloud while figuring out which pictures on the Object card fits the category. The children discuss this together.
3. The Hand counts the pictures on the Object card that fit the category, touching each picture that fits, ignoring those that don't, and counting aloud while saying the name of the picture. The Hand then counts counters directly into the cup.
4. The Hand passes the cup and the Object card to the Check. The Check takes the counters out of the cup and puts them onto the appropriate pictures on the Object card, using one-to-one correspondence to check the Hand's answer.
5. The Check reflects on the learning, and gives the Hand feedback: "You got it just right" ... "You have too many" ... "You have too few" ..."You have one too many" ... "You have two too few."
6. The Hand can make corrections based on the Check's feedback, adding or taking away some counters so there is a one-to-one correspondence.
7. The children put the counters back in the bowl and exchange Hand and Check cards. The new Hand selects a new Object card to play and turns over a new Category card.
8. When children are done with their set of Object cards, they can pass their set to another pair or exchange them for extra Object cards in the center of the table.
* When first introducing this new version of the activity, model how to use the new Category cards. Emphasize:

- The Hand now picks an Object card *and* a Category card
- The Hand uses private speech to figure out which objects to count (the objects that match the category) and which objects to ignore
- The Check uses the Category card to remember which objects to count and uses private speech to place the counters on only the objects that the Hand counted
- Because the children get three Category cards and any Object card has only two categories of pictures depicted on it, one out of three times the category will not fit. The answer is, zero objects fit the category!
- Circulate to support children in playing the game, scaffolding counting and use of private speech.

Increasing the Challenge of Making Collections and Categories

• As children are ready, slowly add cards with greater quantities of objects to count (4-5 objects, then 6-10).

• When children are comfortable counting greater numbers of objects in arrays, add Object cards showing a small number of objects (again, less than 5) that are not in an array. This will include objects shown in an X or circle arrangement. Many children will benefit from direct instruction in strategies to keep track of counting objects that are not in arrays. For example, when counting objects in an X, you might suggest they count objects from the left to the right of the card. If objects are arranged in a circle, you might suggest they start at the top and keep one finger touching the first circle counted to help them keep track.
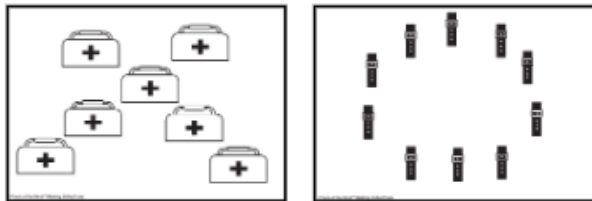
More challenging
Object card arrangements:
X and circle

Categories:
• Give children Object cards with more challenging arrays and a greater number of objects.

Math Memory

In Math Memory, children pay close attention to a set of objects and their attributes and use language to help them remember the objects they see. Then, the teacher hides the objects under a cloth and manipulates them, adding, subtracting, or substituting objects, or making no change at all. When the teacher lifts the cloth, children have to identify what is different about the objects using complex language. The activity engages children in using deliberate strategies to remember, develops oral language skills and vocabulary, and helps children isolate attributes and attend to number. Math Memory is introduced in late fall and continues to the end of the year.

As the year progresses, Math Memory grows with the children. The challenge level increases as more objects are hidden and added or subtracted, more abstract objects are used, and children use strategies

for remembering.

Math Memory combines deliberate memory and the use of language with skills identified in the National Council of Teachers of Mathematics Standards, including geometry, spatial sense, and attribute isolation. Children practice remembering objects on-purpose. They learn to classify objects according to different characteristics (number, attribute, type). They learn to use classification as a strategy to remember on-purpose, a strategy called

organization, considered one of the most efficient memory strategies. Children learn to use visualization as a memory strategy, as well.

Time Block

This activity occurs during the Small Group Math/Science Activities Block.

Structure of Math Memory

Materials

• Make-believe play props or objects from the classroom — A collection of 2–7 objects. Props from the current play theme or from base layer center materials work well, including wooden trains, plastic water bottles, baby dolls, dry erase markers, etc.

• Two cloths or a screen — One piece of cloth big enough to cover the objects in the set, and another to cover any removed objects. Children should not be able to see through the cloths, although they may see lumps where different objects are located. An alternative to cloths is to manipulate the objects behind a screen; a manilla folder or a three-sided piece of cardboard works for this (shown).

Classroom Setup and Teacher Preparation

• Children are divided into two mixed-level groups, and each teacher works with a group. Children may be seated on the floor or around a table.

• Before the activity begins, gather the objects you'll use and keep them hidden in a tub or basket, covered with a cloth.

• Partner children with a Memory Buddy of a different skill level. Be sure children work with different partners over time. The buddies will help each other remember and discuss the changes they notice. If the group has an odd number of children, set up one group of three or partner with one child yourself.

Structure of Math Memory-Adding Boards and Shapes

Materials

• Play Boards from Remember & Replicate (side 2) — One for the teacher to place objects on; one for each pair of children as a tool for organizing and remembering (see Materials Kit or eTools; *shown*)
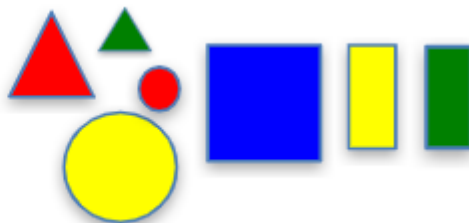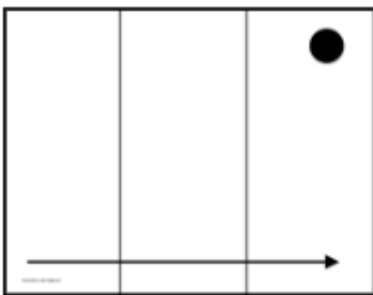
• Shapes from Attribute Game — (see Materials Kit or eTools); you can also use a set of Attribute Blocks

Classroom Setup and Teacher Preparation

• Give each pair of children a Play Board and explain that they will use it with their Memory Buddy to help them remember. Remind them how to orient the board so the arrow is going from left to right. Children will use the boards as a mediator for different sections, but they will not place objects or marks on the board.
• Explain to children that when you use this board, you be putting shapes on the board.
• Memory Buddies should be seated next to each other so they can share a Play Board and look at it from the same orientation.

Flow of Math Memory

1. Introduce children to the objects and use two words to name each — the name of the object and an attribute word. Have the children repeat the two words as you introduce each object (for example, *pink ice cream, shiny spoon*).
2. Encourage children to use a memory strategy to remember on-purpose:

- Memory Strategy #1 — Suggest children "take a picture with your mind" and visualize each object while you name it again.
- Memory Strategy #2 — Suggest children use private speech to remember. Children look at the objects, then turn and away and see if they can say each object's two-word "name" to their Memory Buddy without looking.

3. Cover the objects with a cloth, have children close their eyes, and manipulate the objects under the cloth.
4. Lift the cloth. Tell children to think about what they saw before you made the changes, look at what they see now, and turn and tell their Memory Buddy what's different. Encourage them to continue using the two-word name for each object — the attribute word and the object's name.
5. Summarize what you've heard children say, verify the change you made, and classify the kind of change you made: *addition, subtraction, substitution*, or the *same*. Show children which objects are different or that they are the same objects as before, naming and holding up each object again.
6. Play again with the same objects, a subset of the same objects, or several of the same objects plus a new object or two.
7. Repeat the same steps each time. Monitor and adjust the changes you make to the objects to increase or decrease the challenge. See the charts below for examples.

Examples of More Complex Challenges with Shapes		
"Before"	→	"What's different?"
Initial Array	Teacher Change	Final Array
1 shape (same in each section)	addition (of a new shape in 2 sections)	1 section with 2 shapes; 1 section with 2 shapes; 1 section the same
1 shape (different in each section)	substitution (of 1 shape in 1 section)	1 section with 1 different shape; 2 sections the same
2 shapes in each section	subtraction (of 1 shape from 2 sections)	2 sections with 1 shape; 1 section the same
2 shapes in each section	addition and substitution (of 1 shape in 1 section; of 1 shape in a different section)	1 section with 3 shapes; 1 section with 1 shape different and 1 the same; 1 section the same
3 objects	substitution	all sections with different objects

* When you first introduce the activity, tell children you are going to do some "magic" under the cloth and make a change to the objects while they're hidden. You might remove an object, add another object, substitute an object, or maybe you will make no change. Get children excited to notice what changed.
* Cue children who have difficulty remembering the objects or staying on task to use private speech. You might say, "Your mouth tells your brain what to remember."

Flow of Math Memory-Adding Boards and Shapes

1. Introduce children to the shape(s) you will put in the first section of your board, using two words to name each shape — the name of the shape and an attribute word describing the shape's color or size (or if you are using Attribute Blocks, *thick* or *thin*).
2. Have children repeat the two-word "name" and touch the space on *their* board that corresponds with where you put the shape(s) on *your* board.
3. Do this for each shape in the other two sections as you place each one.
4. Encourage children to use a memory strategy to remember on-purpose:

- Memory Strategy #1 — Suggest children "take a picture with your mind" and visualize each object while you name it again.
- Memory Strategy #2 — Suggest children use private speech to remember. They touch each section of their board and name each object to their Memory Buddy, using the object's two-word "name."

5. Cover the shapes with a cloth, have children close their eyes, and manipulate the shapes in just one section while they're hidden under the cloth.
6. Lift the cloth.
7. Tell children to recall the shapes, look now at your board, and turn and tell their Memory Buddy what's different, pointing to the section on their board where a change happened.
8. Summarize what you've heard children say, verify the change you made, and classify the kind of change you made: *addition, subtraction, substitution*, or the *same*.
9. Play again with the same shapes, a subset of the same shapes, or several of the same shapes plus a new shape or two.

Examples of Beginning Challenges with Shapes		
"Before"	→	"What's different?"
Initial Array	Teacher Change	Final Array
1 shape (same in each section)	subtraction	1 section with no shape in it
1 shape (same in each section)	substitution	1 section with a different shape
1 shape (same in each section)	addition	1 section with 2 shapes (another of either the same shape or a different shape)
1 shape (same in each section)	addition	1 section with 3 shapes
1 shape (same in each section)	addition, substitution	1 section with 2 shapes; 1 section with a different shape

* Continue to introduce new vocabulary to describe shape attributes:

circle	*trapezoid*	*rhombus*	*square*
thin	*large*	*small*	*rectangle*
thick	*round*	(color words)	

* As you cover the shapes with a cloth, manipulate the shapes in one, two, or all three sections while they're hidden, rather than in a single section.

Increasing the Challenge of Math Memory

Continue to monitor and adjust the changes you make to the objects to increase or decrease the level of challenge.

Examples of Beginning Challenges with Objects		
"Before"	→→→→→→	"What's different?"
Initial Array	Teacher Change	Final Array
1 object	subtraction	0 objects
1 object	substitution	1 different object
1 object	addition	2 objects
1 object	addition	3 objects
1 object	addition and substitution	1 different object, 1 new object

Examples of More Complex Challenges with Objects		
"Before"	→→→→→→	"What's different?"
Initial Array	Teacher Change	Final Array
4 objects	substitution	1 different object, 3 the same
3 objects	addition	2 objects added
5 objects	subtraction	2 objects removed
4 objects	addition and substitution	1 object added, 1 different object, 2 the same
3 objects	substitution	all 3 objects different

Use a variety of attribute words including words describing size, length, color, shape, texture, weight, material, etc. to describe objects:

round	metal	bumpy	cardboard
straight	big	shiny	fabric
thick	small	soft	heavy
thin	wooden	hard	light
long	plastic	flexible	dark
short	(color words)	stiff	smooth
rough	smooth	paper	pointy

Number Line Hopscotch

Number Line Hopscotch is introduced in the beginning of the year and continues to the end of the school year. In Number Line Hopscotch, children jump from one numbered mat to the next in numerical sequence. The teacher then moves the number mats so that children have to identify, find, and jump to the next number in the sequence. This activity is one of several that support rote-counting

and numerals in the Tools program. As the year progresses, the challenge level of Number Line Hopscotch is increased by adjusting the placement of the number mats, the quantity of numbers, and the number the children start jumping from (jumping from 5–11 rather than beginning at 1). In order to count objects meaningfully, children have to know and have to have automatized the sequence of numbers. They should be able to count regardless of the number they begin counting on, and be able to continue the counting sequence. They should be able to identify numerals that stand for the numbers in the sequence and be able to follow them in the correct order regardless of where the numbers are placed in space.

Time Block

Number Line Hopscotch can occur during Outside Play time, Free Choice, or in the Small Group Math/Science Block.

Structure of Number Line Hopscotch

Materials
• Number mats — (In Materials Kit) If you do not have a Materials Kit, you can make your own number mats using carpet squares or non-slip disks with number cards taped to them. These should be able to withstand children jumping on them without moving, and be able to be rearranged.

Classroom Setup and Teacher Preparation
• Prior to the activity, teachers decide how many number mats and which numerals to use. Change both the number of mats and the numerals used (1–5, 1–10, 3–8, etc.) over time.
• This activity should be done with a small group of children. During Free Choice, the game can be set up in one area while other children engage in other free-choice activities in the classroom. During the Small Group Math Activities Block, one teacher can lead Number Line Hopscotch in one area of the room or outside of the classroom while the other teacher leads a different Small Group Math, Science, or Story Lab activity. If the activity is done outside, both teachers can set up a series of number mats, or a small group can play with one teacher while other children engage in other outdoor play activities.

Flow of Number Line Hopscotch

1. Have children line up so they are viewing the layout of the numerals in left-to-right order (even if the numerals are not arranged in a straight line).
2. The first child jumps, saying aloud the number as they land on each number mat.
3. The other children count aloud and clap, timing when they say the number to match when the jumper lands on the number mat with that numeral.
4. The next jumper jumps.

Children waiting to jump: Count and Clap
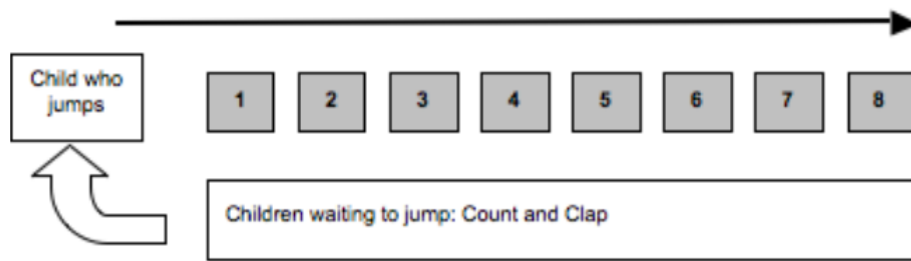
* This activity is about counting, not jumping. If a child has difficulty jumping, hold the child's hand. The child can step onto the number mat rather than jump.
* Fade out your voice and encourage children to clap and to count aloud.
* Encourage jumpers to move as quickly as they can.

Increasing the Challenge of Number Line Hopscotch

• As children are ready, change the arrangement of numbers after several jumpers instead of waiting until everyone has had a turn. Make it fun! Tell the children to close their eyes when you move the number mats so it will be a surprise.

Children waiting to jump: Count and Clap
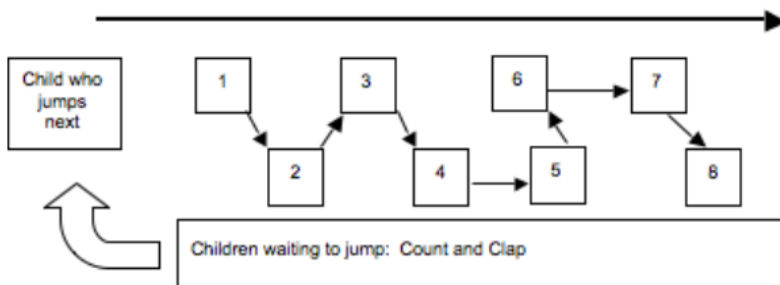
• Introduce starting from a number higher than 1. For example, children could count and jump from 5–13 or 3–11.

Children waiting to jump: Count and Clap
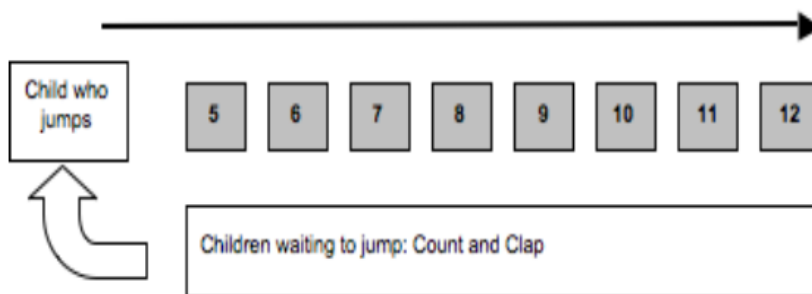
• Eventually, combine both changing the arrangement *and* starting from a higher number.

Children waiting to jump: Count and Clap
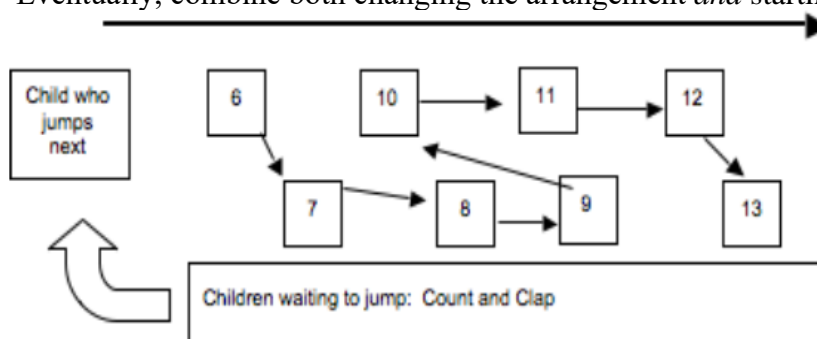
• Add more number mats to the activity so children count and jump a greater set of numbers at a time.

Numerals Game

In the Numerals Game children work in pairs, one child counting out a number of objects after selecting a Numeral Card and the other child checking the accuracy by placing the objects on a Checking Sheet. The checker uses one-to-one correspondence to determine whether the quantity of the collection is correct and says whether there are "too many," "too few," or the "just right" number; the other child corrects if there's a mistake. Then, the children trade roles. As the year progresses, the children work with larger numerals and numbers of objects, counting and checking 1–20 objects. Eventually, they may begin checking solely by counting — determining whether the number is correct without using one-to-one correspondence on the Checking Sheet. One of the cultural tools that young children acquire is the mathematics system of *number*. At the beginning of their understanding, number is just another attribute attached to specific objects (as in, "The squares are red, there are four of them, and they are large"). The quantity of objects is undifferentiated in the child's mind from the general characteristics of the object, and not as a separate concept that can be applied to all kinds of objects. In order to build an understanding of *quantity* and the symbols that stand for various quantities (*numerals*), children must move from the level of what Vygotsky called "complexes," where such attributes are undifferentiated, to a level in which there is a clear concept. In order to do this, children must have manipulatives (external mediators) that help

them explore the attributes. They must also have activities that help them isolate the attribute of quantity. Numerals Game does just that. It provides manipulatives for children to use to explore the idea of *number* and that "numerals stand for quantity." In Numerals Game, children practice symbolic representation of *number* by representing a numeral with objects. Vygotskians believe that the physical action of creating the group of objects that represents the numeral helps the children build the model of *number* necessary to understand the idea of *quantity*. In Numerals Game, children use a variety of objects to count, so that they come to understand that number is an attribute that is independent from the objects being counted. In other words, they understand that the quantity of "three" doesn't belong only to blocks, for example; in fact, we can have three bears, three buttons, three beans, three pennies, etc. The Check Sheet represents the numeral with objects, too. Children learn to self-check by using the sheet, and by making use of one-to-one correspondence. Later, children may explore *number* by counting or they may recognize some quantities by sight, called *subitizing*, without having to actually count the objects. Children may notice that different combinations of quantities make up the number. (The Checking Sheets for 11–20, which are added to increase the challenge, are visually organized to help children subitize.)

Time Block

Numerals Game occurs during the Small Group Math/Science Activities Block.

Structure of Numerals Game

<u>**Materials**</u>

• Numeral Cards — Use numerals 1–10 when you begin the activity; add numerals 11–20 as you increase the challenge (see Materials Kit or eTools; examples shown)

• Counters — Manipulatives for the children to count that are small enough to fit on top of the dots on the Checking Sheet without covering more than one dot. If the objects are too large, it will throw off the spacing and checking won't be accurate. Provide different kinds of objects. We have found that small transparent plastic discs, small counting bears, white beans, small buttons, and small cubes work well.

• Checking Sheets — Sheets are copied front and back (Level I/II shown— see Materials Kit or eTools). Begin with Level I/II sheet with the numerals 1–5 on the front, and 6-10 on the back.
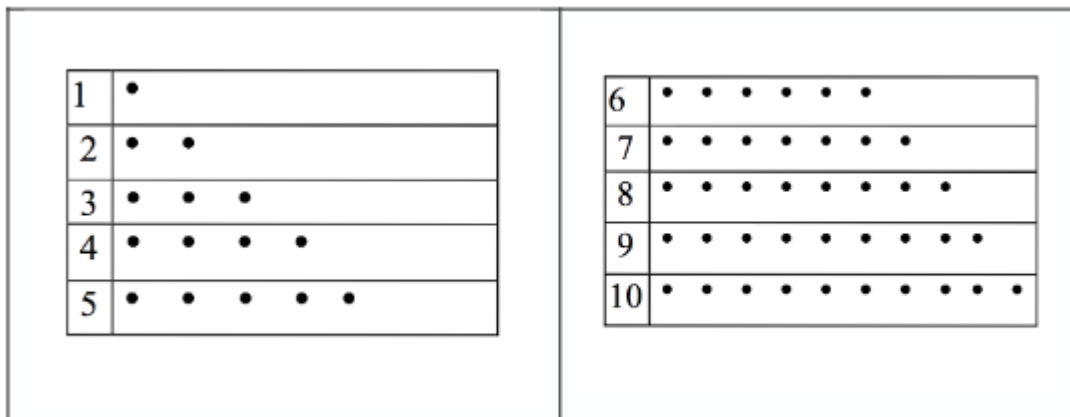
Check Sheet (front), Level I   Check Sheet (back), Level II

• Hand and Check cards — One of each card for each pair of children (shown)

• Bowls — One for each pair of children; fill each bowl with a few more manipulatives than needed to count out the highest number listed on children's Numeral Cards

• Empty cups — For counting *into*; one for each pair of children

<u>**Classroom Setup and Teacher Preparation**</u>

• Choose partners for children, pairing children up with partners of different skill levels each time they do the activity. Over time, all children partner with every other child in the class.

• If the class has an odd number of children, you can have one group of three — with two children as Checks and one as the Hand.

• Children are in two small groups, each seated around a table (or two) and supported by a teacher. Each child is assigned a partner. Partners should sit next to each other or on either side of a corner of a table, *not* across from each other.

• Partner children and give each pair four or five Numeral Cards, a bowl of counters, an empty cup, and a Checking Sheet. Give each child in the pair either the Hand or the Check card, prompting children to say what that means they will do. Remind them if they don't remember, and encourage them to say it to help them remember.

Flow of Numerals Game

1. Tell children a pretend scenario related to the current play theme or past play themes. For example, one child in each pair can be a dog owner and the other a pet store clerk, counting out dog bones.
2. The "Hand" picks a Numeral Card and then counts aloud while putting this number of counters from the bowl into the cup, without using the Checking Sheet.
3. The "Check" verifies the number by taking the counters out of the cup, counting aloud and putting them on the Checking Sheet, using one-to-one correspondence to check the answer.
4. The Check gives the Hand feedback: "You got it just right"; "You have too many"; "You have too few"; "You have one too many"; "You have two too few."
5. The Hand corrects any errors based on the Check's feedback, adding or taking away counters to get the correct number.
6. The children put the counters back in the bowl, exchange Hand and Check cards, and trade roles. The new Hand selects a new Numeral card
* Circulate among your group to support children in playing the game and in counting, making sure children are counting aloud. Confirm that they are using the rote-counting sequence and the correct private speech as they count into the cup.
* Remember to encourage children to work together if one of them needs help; don't have children wait until you come around.
* When children are done with their set of Numeral Cards, they can take more from the center of the table, trade with another pair, or get more from you.

Increasing the Challenge of Numerals Game

• When the children are ready, increase the challenge level to the next set of numerals and cards. Level III cards have the numerals 11-15, and Level IV cards (on the back of Level III) have the numerals 16-20 (shown)
When you first move to Level III, children should play with numerals 11–15 only. Once they have mastered 11–15 fairly consistently, mix the numbers 1–10 back in.

Check Sheet (front), Level III   Check Sheet (back), Level IV

• Tailor the activity to target individual children's ZPDs by providing different challenge levels to individuals in pairs.
• Make sure that in your classroom culture, errors are not treated as negative. Encourage children to view errors as an interesting learning opportunity.

Puzzles, Manipulatives, and Blocks

In Puzzles, Manipulatives & Blocks, children solve puzzles and play with manipulatives, learning how to use the materials in the math and science centers so their independent explorations will be more meaningful and self-regulated. Puzzles, Manipulatives & Blocks is a Small Group math activity that occurs throughout the fall. After December, children engage in this activity during Free Choice. More than ever, young children need practice in small motor coordination. Many young children do not have puzzles, manipulatives, or blocks at home, and many of today's toys require little or no assembly. Also, fasteners such as Velcro on shoes and clothing mean getting dressed doesn't require as much dexterity as it used to. To take full advantage of the many puzzles, manipulatives, and blocks available in the various centers, children have to know how to use them, which requires teacher facilitation at

the initial stages. There has been much research about block building and how it contributes to children's understanding of geometry and space.

Time Block

This activity occurs during the Small Group Math/Science Time Block.

Structure of Puzzles, Manipulatives and Blocks

Materials
• Puzzles — Should range in complexity in number and size of pieces
• Manipulatives — Lacing, pegs, pegboards, nuts and bolts, shape beads for stringing, magnetic tiles, dressing frames, color cubes, Unifix Cubes®, play dough and tools, kinetic sand, etc.
• Blocks — Wooden blocks, small blocks, LEGO®, etc.
• Play dough and tools — Play dough, rollers, cookie cutters, etc.

Classroom Setup
• Divide children into two groups. Each teacher takes a group. One group may be in the block area or on the rug while the other group may be working at several tables. Put out different materials on different days so all children experience a variety of materials.

Flow of Puzzles, Manipulatives, and Blocks

1. Put out materials for each group of children to explore and build with. Within each group, there can be several different activities.
2. Children work independently or collaborate with peers.
3. Teachers circulate, helping children understand how to use materials and guiding children in using language to identify strategies, solve problems, name what they've created, and describe objects and their spatial relationships. Here are some positional words you might use and encourage children to use:

over	on	next to
beside	through	above
under	behind	below

4. Set up peer scaffolding by encouraging children to help each other. Children at this age are apt to help each other by doing it for the other person. They need help learning how to give support without taking over a peer's work. Tell a child, for example, *"Maisie, show Jin where the blue part is"* ... *"Help Jin turn the puzzle piece."* Showing another child how to do the puzzle is fine, as long as the child being shown has the opportunity to do the puzzle independently, too. You can also tell children that the first way you help someone is to suggest something they could try, rather than doing it for them. You might say: *"Have you tried looking for the tail?"* ... *"Did you look for a square piece?"*

Puzzles

The teacher's role is to engage children in private speech as they solve puzzles. Give strategies for solving the puzzle and facilitate the child's use of private speech to remember the strategy. For example:

- "Look at the picture before you start, and say to yourself, 'I'm solving a ____
- puzzle,' or 'My puzzle is a picture of a ____.'"
- "Look for the color that matches and say, 'I'm looking for blue.'"
- "Look for part of the picture and say, 'I'm looking for the tail of the dog.'"
- "When you turn the puzzle piece say, 'turn, turn, turn' until it fits."
- "Look for the shape and say, 'I need a square piece,' or 'I need a piece that has
- a curve.'"
- "Match the shape and say, 'The pointy part goes here.'"
- "Describe part-whole relationships and say, 'I think this is part of the dog's tail.'"

Manipulatives

Encourage children to make things, create patterns, and count objects:

- "What color are you going to use next?"
- "What are you making?"
- "How many do you have there?"
- "Is there a pattern?"
- "What are you building or making?"
- "Hold the string like this and the bead like this."
- "Hold the cube like this and the other cube like this."

Blocks

Encourage children to describe what they are building before they get started. If they cannot think of something, help them brainstorm about a particular project:

- "What are you building?"
- "Where are you going to put that block?"
- "Is it balanced?"
- "Is it big enough?"

Play Dough

Encourage children to make shapes with play dough and use play dough tools (rollers, etc.). Help them see how they could turn their play dough into shapes or props related to the play theme:

- "What are you making?"
- "Are you going to make it bigger or smaller?"
- "Can you use this to make something?" (cookie cutter, roller, etc.)
- "Can you make a prop for our [center theme] with the play dough?"

Remember and Replicate

In Remember & Replicate, children remember and replicate sets of play dough forms of different colors, sizes, and shapes that they first watch the teacher make or assemble. While the children watch, the teacher makes and then hides a configuration under a cloth, and the children are prompted to use strategies to help them remember it. Then the children replicate the set from memory. This activity develops the child's memory and knowledge of positional words and spatial, shape, and color concepts. Remember & Replicate is implemented from the beginning of the year until March. The complexity level increases as children remember multiple attributes, sets grow larger, patterns are introduced and replicated, and the children take on increasing independence, eventually playing the game with a partner. In the spring, elements from Remember & Replicate are moved into the activity Math Memory. One of the skills identified in the National Council of Teachers of Mathematics Curriculum Focus Points for Prekindergarten is elementary geometry and spatial sense. This includes the ability to identify shapes and combine shapes in different arrays and spatial arrangements. In Remember & Replicate, children form various shapes and remember different arrays of forms, paying attention to and using vocabulary to remember and express shape names, sizes, and serial order. Remember & Replicate also involves self-regulation, as the child cannot make just any form, but must make a specific shape, size, and number of forms, as demonstrated and then hidden by the teacher. This requires the child to monitor the teacher's example prior to it being hidden, using deliberate strategies to remember and mental planning prior to acting.

Time Block

This activity occurs during the Small Group Math/Science Activities Block.

Structure of Remember and Replicate

Materials

• Play dough — Enough for each child to make the same shapes of the same size as the teacher's
• Remember & Replicate Play Boards — Double-sided boards, one for each child (see Materials Kit or eTools; shown)
• Hand and Check cards — One set for the teacher (see Materials Kit or eTools; shown)

• Cloth, scarf, or folder — A piece of cloth big enough to cover the objects in the array or a manila folder to hide the objects from view; children should not be able to see through the cloth

Classroom Setup
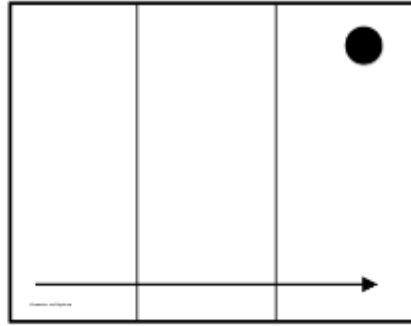
Play Board, Side 1   Play Board, Side 2

• Give every child a Play Board and a ball of play dough.

Flow of Remember and Replicate

Introducing the Activity

1. Introduce children to the three forms: balls, flattened circles, and snakes. Pretend these are something related to the play theme; for example, making a pea or a baby's ball ... a hot dog or spaghetti ... a tortilla or a plate. Use private speech as you model making each form:

- To make balls, you'll say: "Around, around."
- To make flattened circles (pancakes), you'll say: "Flat, flat."
- To make snakes, you'll say: "Roll, roll" or "Back and forth."

2. Children practice making each form, using private speech as they work.

3. Once children can make the forms, have them pile all their play dough on the dot at the top of their Play Board (Side 1) to begin playing the activity.

Playing the Activity

1. Pick up the Hand mediator card and tell children what it represents. You might say:

> "Now I am turning the Hand card so it is facing just me. That means I 'make' and you will watch. Watch what forms I make and how many I make. We're going to play a game where you try to remember and then make what I made. Now I have the Hand card, which means what? ... Right, that I 'make' things. And what do you do? ... Right, you watch."

2. Quickly make two or three forms, using private speech as you make them, and place them in a row on your Play Board. Put any extra play dough on your dot.

3. Cue the children to remember what they see. You might say:

> "I'm going to put ... [number] of [form] ... these two pancakes ... one ball and two snakes ... next to each other. Can you remember this? Picture it in your mind. Say what it is out loud. Then I'm putting my extra play dough on the dot. And now I'm going to hide them."

4. Hide your shapes under a cloth.

5. Use the Hand card to show the children it's their turn. Take the Hand mediator card and put it in the center of the table so it is facing the children. Tell them,

> "Now you have the Hand card, which means you do it. You remember what I made, and now you make it with your play dough. Let's see if you can remember! ... [You can guide the children] Remember what it looked like? Picture it in your mind. Where does your extra play dough go? Right, on the dot!"
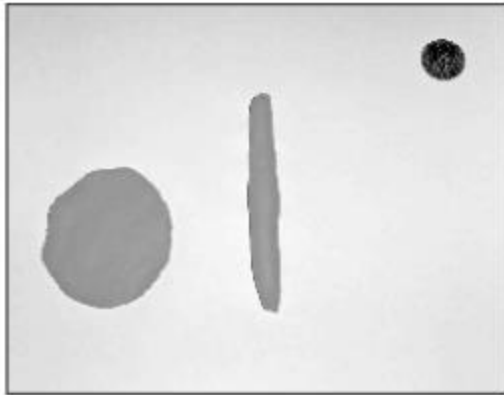
6. Encourage children to use private speech while they make their shapes and place them on their Play Boards.

7. Put the Hand card away and take out the Check card, saying "Are you ready to see if you are right?" Pull the cover off to reveal your shapes.

8. Children check to see whether they remembered and made the same shapes. They can correct their configuration if it doesn't match yours.

* In the beginning, you will typically lead children in making 1–3 forms. If you have a lot of 3-year-olds or children with special needs in your classroom, you might start out with just one form.

* Help children remember that their extra play dough goes on top of the dot—"right on the spot!"

* Some children will need support to get the shape started. A child with a pancake may need help converting this into a ball, as this will take more fine motor coordination.

* Cue children who have difficulty remembering the shapes or staying on task to use private speech. You might say, "Your mouth tells your hand what to do."

Increasing the Challenge of Remember and Replicate

• Increase the complexity level by changing the types of forms you make, their sizes, color, number and position. Some examples include snake-ball-snake, pancake-ball-snake-pancake, etc.
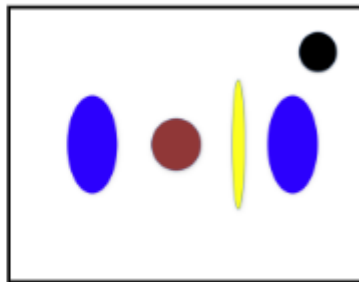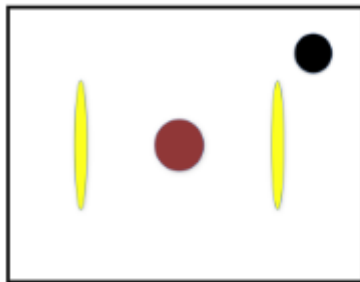
• Begin using positional vocabulary to describe the location of objects. For example, you might describe the board below by saying: "The ball is between the pancakes. The snake is above the ball."
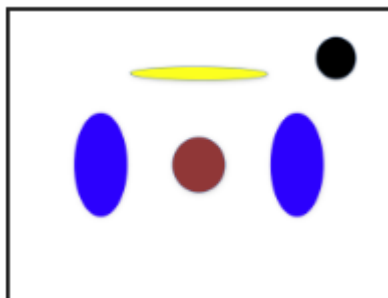
Positional Words:

over	on	next to
beside	through	above
under	behind	below
in between	in the middle	

Increase the challenge again by introducing the Play Board Side 2 with three sections (on the reverse side of the board). Now you will make arrays and help children use the ordinal language of first, second, and third to refer to each section of the board. You'll continue to vary the types of forms you make, their size and color, and the number of forms in the array, and more. Be creative as you explore possibilities.

Playing the Activity with Play Board Side 2:

1. Start by making three forms with play dough and place them in a row, one in each box, using private speech as you do so: "First, I am going to put a hot dog here; and then second, I will put a small ball; and third, I will put a big ball." These can all be the same shape, or different sizes, or different shapes.

2. Cue children to look at the shapes and use private speech to remember where the forms are: "First, hot dog; second, small ball; third, big ball."

3. Prompt children to touch the first section on their (empty) Play Board as they say aloud what you have in the first section of your Play Board. Continue with the next two sections.

4. Cover your array and put out the Hand card. Prompt children to tell you what the Hand card means and remind them if they need it.

5. Children use their playdough to replicate the forms on your Play Board. Encourage children to use private speech as they make the forms.

6. Once children have finished making and arranging their own forms on their Play Boards, take away the Hand card and put out the Check card. Say, "Let's check what we did." Remove the cover and have children compare what they made with what you made. Children can move or change theirs to match yours, and work together to help one another.

7. Repeat, changing the forms and their locations each time.
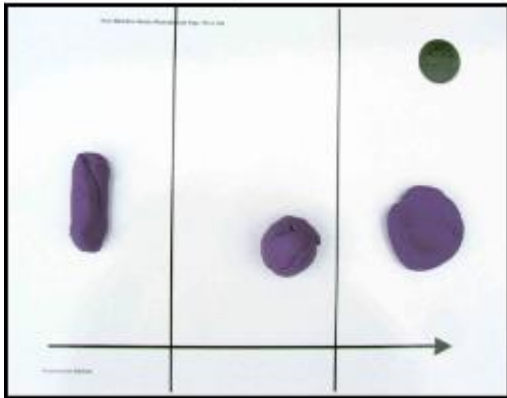
Vocabulary Building

With each new array, introduce and use more vocabulary words. In addition to using ordinal numbers (first, second third) and positional words, you might introduce some of these adjectives to describe forms in arrays:

giant	tiny	round
straight line	thick	thin
long	short	small
larger	smaller	
big	medium	
match	(color words)	

New Shapes, New Orientations

Continue to vary the forms you create. For example, you might make curved snakes and lead children in noticing their orientation. For the array shown, you might say: "First, 1 snake curved with opening facing down. Second, 1 snake curved with opening facing up. Third, 1 snake curved with opening

facing right."
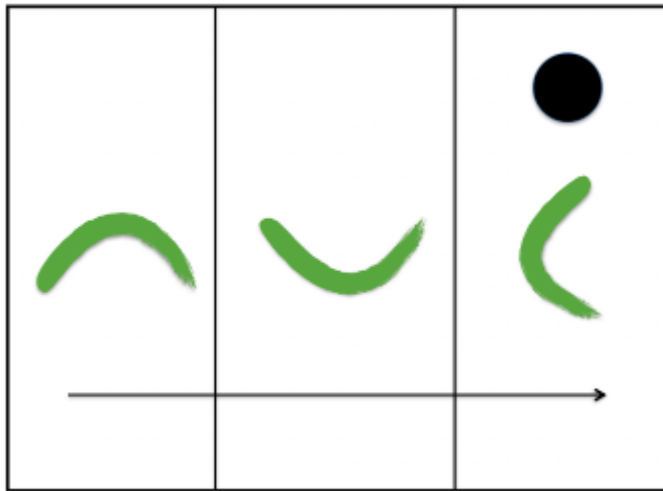
Science Eyes

In Science Eyes, children use a Magnifying Glass mediator (the "Science Eye") to observe closely and use new vocabulary to describe their observations. The activity begins with the teacher facilitating discussion in a small group where the children use new vocabulary words to describe a collection the teacher has chosen. Then children work in pairs, taking turns looking at objects, describing to each other what they see, and confirming their partner's
observations. At the end of the activity, children make drawings representing details of their observations. Science Eyes is introduced in the late fall and continues through the end of the year. Science Experiments, a variation of Science Eyes, is introduced in the spring. As the year progresses, Science Eyes grows with the children. The children use new mediators that direct them to explore using a specific sense, which adds a new dimension to the activity. Children learn to classify their observations and remember to use more than one sense to observe. Children also use Scaffolded Writing to draw and write about what they see. They observe collections first and then observe science experiments later in the year. Although not as familiar to many people as math and literacy standards, science standards are an important part of an early childhood program. The Science Eyes activity meets current standards for science by emphasizing discovery, observation, prediction, analysis, and the recording of data. Early in the year, Science Eyes emphasizes the oral language needed to describe similarities and differences, as well as the scientific method of making a hypothesis (the child's observation) and checking it (the other child's confirmation/correction of the observation) in a careful manner. By the end of the year, Science Eyes emphasizes predicting ahead of time and then checking one's predictions by observing — thus practicing how to create hypotheses and test them out.

Time Block

Science Eyes occurs during the Small Group Math/Science Activities Block. It is done once or twice a week in rotation with other Math/Science Activities (Story Lab–Learning Facts; Making Collections; I Have Who Has: Color; Remember & Replicate; Math Memory).

Structure of Science Eyes

<u>**Materials**</u>

• Magnifying Glass mediators — A mediator to help children remember to look closely and take turns. One for each pair of children. This "Science Eye" is a piece of cardboard cut in the shape of a magnifying glass, with the middle cut out for children to look through.

• Science Eyes Study Guide Sheets — A sheet on which the teacher records new vocabulary related to the collection, relevant books to read to children, and possible home-school connections. One sheet for each teacher, at each Science Eye table, serves as a mediator to help teachers remember vocabulary and book connections (below)

Science Eyes Study Guide Sheet		
Science Eyes Collection_____		
Vocabulary:	Relevant books:	Home-School connection:

• Scaffolded Writing paper — To draw and record (either full- or half-size sheet) (both shown)

• Pencils and crayons

• Books — Related to the topic, to support children's study

• "Shoe box" science collections — Collections of objects for study. A collection should have at least four or five different kinds of objects for each pair of children (at least 20–25 things for each small group). A collection can be put together on the spur of the moment (e.g., collecting leaves in fall) then discarded, or saved in a shoebox or resealable plastic bag and used over and over again.

<u>**Classroom Setup and Teacher Preparation**</u>

• Children are divided into two small groups, and each group works with one teacher.

• Science Eyes is designed to last 10–15 minutes and works best with each small group seated around a table.

• Plan the collections in advance. Fill out a Science Eyes Study Guide Sheet and made a copy so that both teachers can refer to it. Books related to the collection are on the tables, and the collection is in the center of the table. (See chart for two suggested studies: "Leaves and Seed Pods" and "The Human Face.")

• In the days preceding Science Eyes, you may want to dedicate a Small Group Story Lab activity or two to reading books that support the Science Eyes collections that children will be observing and discussing.

• Pair children with partners of different skill levels, rather than having children choose their own partners. Over time, make sure children partner with every child in the classroom.

• If the class has an odd number of children, one teacher will need to be a partner at the beginning of the year. By later in the year (around March), children will be practiced enough at Science Eyes that you can have one group of three. Because communicating about and confirming observations are

central to Science Eyes, you always want children working with someone else, never working alone.

Flow of Science Eyes

1. If you've read nonfiction books related to the collection to the children, have these out and do a picture walk. Ask children what they remember from the books. Make sure the children are talking and remembering.
2. At each table, present the objects in the collection and lead a discussion. Children talk about different aspects of the objects, using vocabulary for size, shape, kind, color, texture, comparison, etc. Do a lot of group brainstorming at the start of the activity so children have vocabulary words to use when they observe with their partner.
3. Pair children, giving one child in each pair the Magnifying Glass mediator and saying, "You are going to look first." Each pair receives 3-5 objects to observe. The remaining objects are placed in the middle of the table.
4. Children take turns looking at each object, describing it, and confirming each other's observations. They repeat this process with several more objects.
5. When children have looked closely at a few objects, give pairs paper to draw their observations. Depending on the child's Scaffolded Writing level, either you or the child record a few words.
* Circulate among your group, scaffolding pairs as they observe. Help children with:
* Observing more (e.g., "Now observe something different. What else do you notice?")
* Taking turns — using the Magnifying Glass mediator as a mediator for turn taking (the child with the glass observes and comments, then they exchange)
* Remembering which specific sense to use in their observations, rather than making random observations
* Using new vocabulary; if a child always comments on a single attribute (e.g., color) but doesn't use new vocabulary, scaffold the use of new vocabulary

---

Example Science Eyes Study: Leaves and Seed Pods

Possible vocabulary:
- Color words — *red, magenta, brown, yellow, green*
- Geometry vocabulary — *straight, curved, round, circular, rectangular, pointed, edge, center*
- Descriptive words — *bumpy, smooth, brittle, sharp, prickly, angles, same, different, smaller, larger*
- Collection-specific vocabulary — *veins, stem, leave, seed pod*

Books that support this study:	**Related books:**
- *Red Leaf, Yellow Leaf* (L. Ehlert) - *Fall Leaves Fall* (Z. Hall) - *Why Do Leaves Change Colors?* (B. Maestro) - *Autumn Leaves* (K. Robins)	- *How Do You Know It Is Fall?* (A. Fowler) - *It's Fall* (L. Glaser) - *When Autumn Comes* (R. Maass) - *When Autumn Falls* (K. Nidey) - *Autumn Days* (A. Schweninger) - *Fall Changes* (E. Senisi)

Example Science Eyes Study: The Human Face

In this study, each pair uses a Science Eyes Magnifying Glass and a hand mirror and the "collection" is the children's own facial details and facial expressions communicating different emotions. One child uses the magnifying glass to observe the partner's face; the partner uses the mirror to confirm the observation, and they exchange the Science Eye and mirror and observe the second partner's face, going back and forth.

Possible vocabulary:
- Color words — *tan, light, dark, lighter, darker, brown, black, red, blonde, brunette, hazel, blue, green*
- Geometry vocabulary — *straight, curved, rounded, angular, center, edge*
- Descriptive words — (facial features linked to emotions) *raised, higher, lower, pointy, furrowed, wrinkled, pout, frown, dimple*
- Collection-specific vocabulary — *head, eyes, ears, nose, mouth, teeth, lips, hair, eyebrows, eyelashes; happy, sad, frustrated, angry, bored, surprised, shocked, disappointed, silly, cranky, sulky*

Books that support this study:
- *My 5 Senses* (Aliki)
- *Feelings* (Aliki)
- *Baby Faces* (DK Publishing)
- *Faces* (A. Geddes)
- *Baby Faces Board Book #2: Smile* (B. Intrator)
- *All the Colors We Are* (K. Kissinger)
- *Baby Faces* (Playskool™ board book) (M. Miller)
- *Smiling* (G. Swain)
- *Me and My Senses* (J. Sweeney)

Tips for implementing this study:
- Prompt children to look at one specific part or attribute of the face at a time (eyes, ears, mouth, hair, eyebrows). The child with the Science Eye might say, for example, "I see you have blue eyes" or "I see my ears have a bump and a hole." Prompt more detail. About the first observation you could say,

  "Are his eyes really all blue? Do you see something else? Do you see something black? … You can use words like, the center is like a circle and it is black, then around it is another circle that is blue. … The eyelashes are brown. … The shape of the eye is like an almond."

- Have children imitate different emotions as they watch themselves in a mirror. Then have them describe what happens to their faces.
- Have partners try to match expressions, using the mirror to confirm whether or not they're successfully copying each other's expression, attending to specific features. Have children draw faces displaying the different emotions they observed.

Increasing the Challenge of Science Eyes

Sense Mediators

Introduce Sense Mediators to Science Eyes. From left to right, the mediators are touch, taste, sound, sight, and smell.
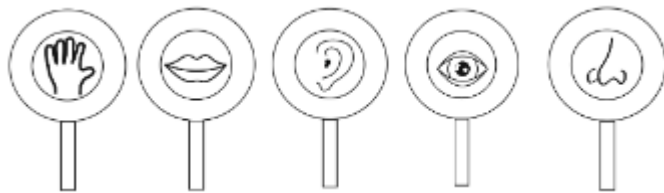
Classroom Setup and Teacher Preparation
• Plan collections that can be observed with multiple senses, and plan vocabulary related to each of the applicable senses.
• Note: Do not bring out sense mediators that aren't appropriate to use with a particular collection. For example, you will rarely use the taste mediator since most collections won't involve tasting.
Changes to Activity Flow
• Bring out the Sense Mediators children will use today. Have children use 2-4 senses each time.
• Pair children, then give one child in each pair the Sense Mediator they'll start with today. Pairs make

observations together, using the Sense Mediator to help them remember to make specific observations related to that sense (and inhibit making observations using other senses).
• After children have made observations and named vocabulary for one sense, give pairs another sense mediator. Later in the year, when children are familiar with how to observe using each of the senses, you might place a pile of Sense mediators appropriate for the collection on the table and have pairs select new ones as they're ready. But in the beginning, limit the choices.
• When children are ready to write, encourage them to look at the Sense Mediators that guided their observations to recall more to represent in their drawings/writing.

Science Experiments

Introduce Science Experiments to Science Eyes. In Science Experiments, children engage in long-term science observations which they record in a Science Eyes Journal. Look for children's readiness to begin engaging in Science Experiments when they are able to make 2-4 observations and deliberately use more than one sense when observing. One-time Science Eyes activities exploring collections may continue alongside these long-term observational studies.

<u>Classroom Setup and Teacher Preparation</u>
• Continue to plan studies using the Science Eyes Study Guide Sheet, build children's background knowledge for the study through Story Labs. and use Sense Mediators as appropriate.
• Prepare a Science Eyes Journal for each child (using sheets of Scaffolded Writing paper). The journal should be specific to the study (e.g., one journal for a butterfly study, another for growing crystals).

<u>Changes to Activity Flow</u>
• The first day of the study, children are introduced to the long-term observation project and to the journal. On subsequent days, children reread any prior journal entry observations they've made and share these with their buddy before engaging in today's observation.
• Children continue to work with a partner, engaging in shared activity as they observe and discuss, and then draw/write about what they noticed.

Suggested Science Experiments

Life Science — With long-term observations
• Observe living things and nonliving things, and changes in them:

- class pet
- caterpillars become butterflies
- eggs hatch to become ducks or chicks

• Planting lima or other beans or seeds in soil in containers or on a wet paper towel, observing and recording growth
• Potato rooting — Place toothpicks around the middle of a sweet potato, then fill a glass 2/3 full with water. Place the sweet potato in the glass, supported by the toothpicks. Add water to keep the bottom of the potato
covered. In about two weeks, roots will appear. Children observe the growth.
• Nature walks observing changes in plant life, animal tracks and sightings, birds and nesting, etc.

Physical Science
• Ice cubes melting
• Water evaporating in different conditions (i.e., open container vs. closed container)
• Liquid becoming a solid (i.e.. gelatin or water freezing)
• Sugar crystals — Dissolve ¾ cup sugar in 1 ½ cup boiling water (away from children), place in glass jar, stir well, attach a string to a pencil, place pencil across top of jar and submerge string in liquid. Observe daily as crystals grow on the string. (Sugar crystals grow slowly over several days.)

• Salt crystals — Dissolve ¼ cup salt in 1 cup boiling water (away from children). Pour into shallow pan or variety of shallow containers. Place in sunny location. (Salt crystals form as the water evaporates and grow
over several days.)
• Magnets — Exploration and movement of a variety of objects (magnetic and nonmagnetic) in different materials (cornmeal, rice, Styrofoam, sand) in shallow container to see if they are magnetic and how they move.
• Sink and float — Place variety of objects in tub of water; predict, observe, sort, record results.
• Shadows — Children observe their own shadow and those made by variety of movements, including jumping and chasing.
• Exploring force:

- How will different objects react to an outside force?
- Using a rock, play dough, clay, foam, sponge, wood, etc., push on them with different materials (i.e., hand, block, crayon, pencil, etc.). How do they react? Make sure children discuss what they think might happen and record what did happen.

• Effects of different inclines and planes:

- Based on different conditions such as height or length, which will allow an object to move faster/farther? Given the same height, which of two objects will move faster/farther?

Venger Drawing/Collage

In Venger Drawing, children use basic shapes to make their own pictures, practicing the concept of shape in a meaningful context. Children visualize the shape as a part of something larger—as a component in familiar objects. As the year progresses, Venger Drawing grows with the children. More shapes are added, and Venger Drawing becomes Venger Collage. Venger Collage increases the challenge. Children cut, paste, and incorporate colored geometric shapes into their Venger Drawings. One of the National Council of Teachers of Mathematics Curriculum Focal Points for Prekindergarten is geometry. The important skills are the ability to identify shapes and make pictures by combining shapes. In the Venger Drawing/Collage activity, children make the shape into something else, thus learning that a shape can be placed in another shape. In addition to understanding shapes, the Venger activity promotes creative thinking. One of the major tests for creativity asks children what they can do with everyday objects in an imaginative way. In a sense, this activity asks children to pretend that the shape is something other than the shape. We have found that the Venger shapes start showing up in the children's drawing in other contexts, because they have learned a strategy for drawing. Venger Drawing also involves self-regulation, as children cannot draw just any picture but must make a plan to incorporate a specific shape into their drawing. More drawing skill is required in Venger Drawing than in other activities, where children draw their own ideas. Children strive to make their picture of the object recognizable to themselves and to others.

Flow of Venger Collage

Changes with Venger Collage:

• Encourage children to draw their ideas as well as cut out and use shapes and any other decorative collage materials you provide.
• Scaffold children with cutting, helping children learn how to use scissors and how to use private speech to guide their actions ("snip, snip; thumb up").

Structure of Venger Collage

<u>Materials</u>
• Venger Shape Sheets — Same as used in Venger Drawing
• Crayons or markers of different colors
• Venger Shapes — Shapes copied on colored paper and cut apart "roughly" for children to cut out more precisely and use with their drawing
• Scissors
• Glue sticks, paste, or glue
• Decorative art elements — Glitter, confetti, yarn, feathers, sequins, etc.

<u>Classroom Setup and Teacher Preparation</u>
• Children sit at tables in two small groups, with one teacher working with each group.
• Depending on children's previous experience, their current levels of fine motor development, and the teacher's goals for children, decide how to present these shapes:

- Cut the shapes prior to the activity and make them available for gluing, eliminating children's cutting
- Cut out all but one side of each shape, so children will have to cut only one side in a single snip
- Cut the shapes so children will have to make simple snips on multiple sides
- Do some of each of the above, for children at different levels

Flow of Venger Drawing

1. Introduce a Venger shape sheet. Name the shape and have children name the shape.
2. Ask the children, "What could this be? What can you make this into?" Turn the sheet various ways and model brainstorming what the shape could be, looking from different perspectives. A triangle, for example, may look from one orientation like a roof or a hat. From other orientations, it may look like an ice cream cone or a bird's beak. Each child says aloud what the shape might be and passes it to the next child.
3. Children choose one of the ideas for the shape they would like to draw, get their own Venger Shape Sheet, and draw. Encourage children to conceive of the shape as "part of" their picture rather than the whole. It is more complex to visualize a triangle as part of a house (its roof) or part of a dog (its ear) than to conceive of the triangle as the whole of an object (a tent).
4. As children are drawing, circulate and comment on the drawings, deliberately using the name of the shape in your comments and talking about how the child has used the shape. Use positional words such as on top of, next to, under, beside, to the left, to the right, etc.
5. Scaffold children's use of the name of the shape and oral language as each child tells you about what they drew. Accept every child's attempt to incorporate the shape into a drawing, keeping in mind that Venger Drawing is about the child's representation, no matter how inexact. What matters is whether the drawing is representative to the child.
6. Based on their level of Scaffolded Writing, label the child's drawing or support the child in writing

about their drawing. Children at Level M or higher may also wish to write their names.

Increasing the Challenge-Venger Collage

To increase the challenge in Venger Drawing, introduce Venger Collage. In this variation of Venger Drawing, children add cut-out shapes to the Venger Shape Sheet, and use them to create a collage with multiple shapes and additional art materials. In addition to practicing math skills, children engage in creative thinking while strengthening fine motor skills.

Time Block

Venger Drawing and Venger Collage occur during the Small Group Math/Science Activities time block.

Structure of Venger Drawing

Materials

• Crayons or markers of different colors
• Name tags — For children who need them to write their names
• Sound Maps — For children who want to write about their drawing
• Venger Shape Sheets — Half-sheets of standard 8 ½ x11 inch paper displaying a shape. Copy enough sheets so each child in the group can work with the same shape. Notice that some of the shapes are centered on the sheet, while others are not. (examples shown)
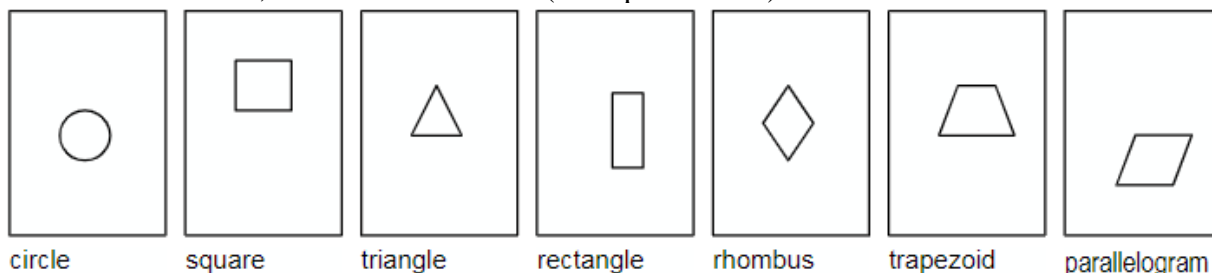
circle   square   triangle   rectangle   rhombus   trapezoid   parallelogram

Classroom Setup and Teacher Preparation

• Children sit at tables in two small groups, with one teacher working with each group.
• Prior to the activity, the teacher copies and cuts apart enough Venger Shape Sheets for each child to have a copy of the same shape.
• Baskets or buckets of crayons and markers are set on the table for children to use when they begin to draw.
• Brainstorm in advance 3–5 possibilities for the shape, so you can easily contribute and model how to share different possibilities and scaffold children's brainstorming.

Enduring Understandings

Attribute Game

For children to:

8. Recognize basic geometric shapes and learn about shapes and their attributes
9. Isolate a specific attribute and hold it in working memory
10. Learn that attributes are independent characteristics of objects, leading to more abstract conceptualization
11. Identify objects as "same/different" and then "more/less" on the basis of attributes children can measure
12. Learn the foundations of analysis by using identified attributes of objects for various purposes, such as describing, sorting, and comparing
13. Take turns and learn to act independently (self-regulation)

I Have Who Has? Math

For children to:

- Practice math and science concepts and build vocabulary
- Develop memory—automaticity (fluency) of new vocabulary
- Learn to play a game with rules
- Take turns, engage in a behavior on-purpose, inhibit reactive behaviors, and increase working memory (self-regulation)

Making Collections

For children to:

- Engage in meaningful counting
- Represent quantities with objects (symbolic substitution)
- Use one-to-one correspondence to confirm quantity
- Use language to identify "too many" or "too few"
- Isolate objects, and inhibit counting some objects while counting others
- Develop self-regulation; take turns acting out different mental roles ("Hand" and "Check") and begin to reflect on learning

Math Memory

For children to:

6. Use mental visualization and language as a memory tool
7. Use more complex language to describe objects
8. Develop vocabulary
9. Isolate attributes
10. Sustain attention
11. Learn and apply multiple strategies to solve problems

Number Line Hopscotch

For children to:

- Learn the rote-counting sequence
- Identify numerals and associate them with a specific number that comes in a specific order

- Become familiar with the conception of a number line
- Practice beginning counting from numbers other than 1
- Take turns and engage in other-regulation
- Develop self-regulation by jumping on cue

Numerals Game

For children to:

- Engage in meaningful counting
- Identify numerals and associate them with the correct number of objects
- Represent quantities with objects (symbolic substitution)
- Use one-to-one correspondence to confirm quantity
- Use language to identify "too many" and "too few"
- Develop self-regulation; take turns acting out different mental roles ("Hand" and "Check") and begin to reflect on learning

Puzzles, Manipulatives, and Blocks

For children to:

- Use mental visualization instead of physical trial and error to solve puzzles; children should be able to look at the missing pieces and plan out in their heads which piece to look for, using visual clues
- Observe and discuss part-whole relationships; children should be able to notice which pieces are part of which picture (whole)
- Use positional words and geometry concepts to describe solving puzzles and using manipulatives
- Use manipulatives to make patterns and think about number
- Build 3D structures with blocks
- Sustain attention, learn and apply multiple strategies to solve problems, develop cognitive flexibility, and participate in shared activity

Remember and Replicate

For children to:

- Use mental visualization as a memory tool
- Use fine motor skills to make objects out of play dough and place small forms in different spatial orientations
- Use positional words and concepts of geometry, number, pattern, and color in private speech to describe how many objects there are and where they should go
- Use play dough forms to make arrays and patterns and think about number
- Sustain attention, learn and apply multiple strategies to solve problems, develop cognitive flexibility, and participate in shared activity
- Learn to use the Hand and Check mediator cards

Science Eyes

For children to:

- Increase their ability to attend to small details when observing

- Strengthen oral language skills and build vocabulary, using adjectives and adverbs to describe details and similarities and differences between objects
- Practice conversing "on topic" with a partner and engage in positive social interaction
- Take turns and learn to act independently (self-regulation)

Venger Drawing/Collage

For children to:

- Recognize basic geometric shapes
- Use basic shapes as building blocks in their own pictures
- Mentally construct and deconstruct real-world objects into their basic shapes
- Build pictures and designs by combining 2D shapes
- Learn basic shape concepts in context by using shapes purposefully
- Use positional words to describe objects in space
- Practice fine motor skills by cutting and pasting shapes onto the drawing (Venger Collage)
- Converse with peers and engage in positive social interaction

Summative Assessment and/or Summative Criteria
Attribute Game

Ages 3 4 5	Classification and Sorting in Attribute Game
	— Sorts objects, but is not systematic or consistent in use of attributes to form the group. Engages in *chaining* (changing attribute with each object added to group)
	— Classifies based on one attribute given the choice between several objects (big vs. small)
	— Sorts and classifies group of objects based on one attribute when attribute is presented as a part of group (e.g., given a blue block and a green block and asked to sort to match the objects). Sorts by color more easily than other attributes
	— Sorts and classifies group of objects based on one attribute when attribute is abstracted from a rule or another object (e.g., when given a blue card, but asked to sort blue and green blocks). Can give attribute name
	— Sorts group of objects based on an abstracted attribute and can change the attribute and reclassify same objects according to another attribute. This requires inhibiting the previous sorting criteria
	— Classifies based on two attributes simultaneously (large blue, small blue, large red, small red)
	— Classifies subgroups within larger groups (e.g., "blue bears are made up of small and large bears")
	— Classifies based on multiple attributes (two-by-two matrix)
	— Understands relationship between broader classes and subclasses (e.g., knows objects can belong to several classes at same time)

Ages 3 4 5	Basic Concepts in Attribute Game
┃ ┃ ┃	— Knows common colors: red, blue, black, yellow, green, etc. — Knows concepts *big/little, tall/short, long/short, on, in, down, up* — Knows *high/low, wide/narrow, thick/thin, deep/shallow, next to, outside, inside* — Identifies one attribute in different objects (e.g., All the blue blocks even though there are bears, blocks, and pieces of paper) — Knows *underneath, below, over,* and *under* — Knows *full/empty, light/heavy, bottom/top/middle; first, second, third; rectangle, triangle, circle, line* — Identifies when object has two attributes (e.g., square and blue) — Identifies whether two objects are *same/longer/shorter, lighter/heavier, thinner/thicker* — Can identify when objects have more than two attributes ("It's a big, blue square") — Uses spatial terms relative to own body, as well as relative to other people or objects

Ages 3 4 5	Self-Regulation and Turn Taking in Attribute Game Note: Hand and Check mediator cards are not used, although the roles are
┃ ┃ ┃	— Shows no evidence of roles of Hand or Check. Sorts as if no partner were present — Other-regulates; tells other child to "take turns" — Shows evidence of turn taking. One child sorts the object, and other child checks — As Check, checks by comparing partner's sorted objects against Attribute Man — Knows "job" for each role; is able to do that job — Takes organized turns. One child sorts, other child watches; then they switch (child who watched now sorts) — As Check, remembers to give feedback to buddy — Can explain roles and rules of game

I Have Who Has? Math

Ages 3 4 5	Numeral Recognition in I Have–Who Has? Numbers
	— Does not know difference between numerals and other shapes; chooses cards at random
	— Discriminates between numerals formed by lines (4) and those formed by curves (3). Matches similar numerals (1 and 7), but not necessarily identical ones
	— Matches some numerals under 5, but may label numeral 1 as uppercase letter I ("eye") or lowercase letter l ("el")
	— Recognizes numerals that are familiar, such as date, own age, etc. Can correctly match and name some numerals, such as 3 or 4.
	— Discriminates between numerals with similar lines but different left/right orientation (2 and 5). Matches these numerals correctly and corrects other children when they make mistakes with them
	— Recognizes numerals 1-5 during Group Play game; can correctly match and name these numerals
	— Discriminates between numerals with similar lines but different vertical orientation (6 and 9). Matches these numerals correctly and corrects other children when they make mistakes with them
	— Recognizes numerals 1-10 during Group game; can correctly match and name these numerals
	— Corrects other children
	— Recognizes numerals 1-10 when playing Individual Play game; can correctly match and name these numerals
	— Can increase fluency of numeral recognition 1-10 by playing game faster
	— Recognizes numerals 11-15; can correctly match and name these numerals
	— Recognizes numerals 1-20; can correctly match and name these numerals
	— Can increase fluency of numeral recognition 1-20 by playing game faster

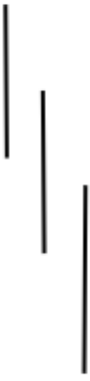| Ages 3 4 5	Shape Recognition in I Have–Who Has? Shapes
	— Does not know difference betweena specific shape and any other figure, number, or letter; chooses cards at random
	— Discriminates between shapes formed by straight lines (square) and those formed by curves (circle): Matches similar shapes such as circle and oval, but not necesserily identical shapes
	— Discriminates between shapes formed by vertical and horizontal lines (square) and those formed by slanted lines (trapezoid): Matches similar shapes such as square and rectangle, but not necessarily identical shapes
	— Recognizes circle and square: Matches shapes when playing Group Play game
	— Names circle and square correctly when playing Group game
	— Recognizes triangle and rectangle: Matches shapes when playing Group game
	— Names triangle and rectangle correctly when playing Group game
	— Corrects other children's answers
	— Recognizes and names trapezoid when playing Group game
	— Recognizes and names all basic shapes when playing Individual Play game
	— Can increase fluency of shapes recognition by playing game faster

Ages 3 4 5	Oral Language in I Have–Who Has? Games
	— Able to point to a child (name), color, shape, number, or letter when prompted by teacher — Imitates what other children say — Says name of child or color on own during Group Play game — Says name of child or color on own during Individual Play game — Says some letters (most common letters), shapes, or numbers (1-5) during Group game with support — Says "I have ___. Who has ___?" and the names of some letters (most common letters), shapes, or numbers (1-5) during Individual game — Says "I have ___. Who has ___?" and the names of most letters, shapes, and numbers during Group game — Says "I have ___. Who has ___?" and the names of all letters, shapes, and numbers during Individual game — Develops fluency in naming letters, numbers, shapes, or colors faster during Cheetah Challenge

Ages 3 4 5	Self-Regulation (Game Playing) in I Have–Who Has? Games
	— Matches cards at random — Looks at cards to see if there is a match during Group Play game when prompted — Copies other children during Group game — Says "I have ___. Who has ___?" during Group game when prompted — Corrects other children during Group game — Says "I have ___. Who has ___?" independently during Group game — Looks at cards and finds match during Group game — Needs prompting to say "I have ___. Who has ___?" and to show card and place it with discarded cards during Individual Play game — Corrects other children during Individual game — Scans own cards and finds match during Individual game — Inhibits answering when not own turn — Remembers how to say "I have ___," but not to turn over and discard card with icon side up — Scans own cards, finds match, remembers what to say and do, and places card in correct place without support — Is able to scan, find match, and play game quickly — Helps others find matches — Can state rules of game and plays by those rules — Is able to increase speed of playing the game — Can play game independently with peers

Ages 3 4 5	Basic Concepts in I Have–Who Has? Colors
	— Knows one or two color names based on use, such as favorite color, used in center choice. Can match and name these colors during Group Play game — Knows color names *red, green, black, white, yellow blue*. Can match and name these colors during Group game — Knows color names *red, green, black, white, yellow, blue, orange, pink, purple, tan*. Can match and name these colors during Group game — Can correctly match and name all basic colors during Individual Play game — Can increase fluency of color recognition by playing game faster

Making Collections

Ages 3 4 5	Number Concepts in Making Collections
	— Uses some number words, but without number sequence, no order — Verbally recites numbers 1-10 with partially correct order — Matches objects one to one (*one-to-one correspondence*) with another set of objects for 1-5 — Knows that when two groups of objects have same number, "they are the same" — Can check and correct the other child when *too many, too few,* or *correct number* for 1-5 — Counts 1-5 objects — Adds or subtracts one object from collections under 5; adjusts total number ("Now there are five") — Can say when *too many, too few,* or *correct number* before placing all objects on card to check — Matches objects one to one (*one-to-one correspondence*) with another set of objects for 1-10 objects — Counts 1-10 objects — Adds or subtracts objects from collections 1-10; adjusts total number — Knows that last number represents total counted (*cardinality principle*) — Counts starting on a number other than 1 (e.g., "5, 6, 7, 8, 9") — Counts 1-15 objects — Knows that smaller numbers are first, larger numbers come later (*ordinal principle*) — Counts any collection of objects (*abstraction principle*) — Understands that order of objects counted does not affect total number — Counts backwards from 10 — Represents numbers by drawing — *Subitizes* (instantly recognizes size of collection without counting) for collections up to 5 — Counts 1-20 objects. Recognizes numerals 1-20 — Knows that larger number is made up of smaller numbers

Ages 3 4 5	Classification and Sorting in Making Collections
	— Classifies objects, but not systematic or consistent in use of attributes to form the group. Engages in *chaining* (changing attribute with each object added to or counted as part of group) — Uses Category card to identify and sort objects based on one characteristic/attribute (e.g., can count "land" objects) — Can ignore objects not part of category being counted — Understands that one class may have zero members — Can change Category cards and count/sort same group of objects based on new category. Can reclassify same objects according to another attribute — Can explain reasons for including objects in one category or another — Knows that objects can belong to several classes at same time — Understands relationship between broader classes and subclasses

Ages 3 4 5	Self-Regulation and Turn Taking in Making Collections
	— Ignores Hand and Check mediators and plays with objects — Is challenged by inhibiting own role of either Hand or Check — Places objects directly on card no matter which role — Other-regulates; corrects other child's role — As Hand, remembers to count objects into cup — As Check, checks by putting objects on Key card — Knows the "job" for each role and is able to do that job — Can exchange roles and carry through with second role — Does not remember added rules of counting only the objects in a specific category (Category Cards) — Check remembers to give feedback to buddy — Has internalized roles and participates fully: taking turns, getting new cards, exchanging roles with ease — Can explain roles and rules of simple Making Collections game — Can explain roles and rules of Category Cards game

Math Memory

Ages 3 4 5	Oral Language in Math Memory
	— Uses own familiar word to describe objects
	— Repeats name of object after teacher
	— Says name of each object independently
	— Repeats descriptive words that teacher or other children use
	— Copies what other children say they remember was changed
	— Gestures to where missing object was, or points to object added or substituted.
	— Says "no" when there is no change to array
	— Remembers names of objects that are missing, are added, or were subsituted for 1-3 object arrays
	— Remembers names of objects that are missing, are added, or were subsituted for 4-5 object arrays
	— Uses new vocabulary words to describe objects independently
	— Uses location words to describe placement of objects on grid
	— Uses geometric shape names and attributes to describe objects
	— Uses words *subtraction, addition,* and *substitution* to describe change in array

Ages 3 4 5	Early Math Skills in Math Memory
	— Uses some number words, but without number sequence, no order — Counts 1-3 objects — Matches objects one to one (one-to-one correspondence) with another set of objects for 1-5 — Adds or subtracts one object from array of 1-3 objects; adjusts the total number — Identifies when an object or objects have been added or subtracted from array of 1-3 objects — Identifies substitution of objects for array of 1-3 objects — Counts 1-5 objects — Adds or subtracts one object from array of 1-5 objects; adjusts total number — Identifies substitution of objects for array of 1-5 objects — Understands concepts of high/low, wide/narrow, thick/thin, next to, outside, inside — Understands underneath, below, over, and under — Identifies which of two objects is same/longer/shorter, bigger/smaller — Identifies and orders relative size of three of the same forms; small, medium, big — Uses spatial terms relative to own body, as well as relative to other people or objects — Identifies when an object or objects have been added or subtracted from array of 1-5 objects — Counts 1-10 objects — Adds or subtracts objects from small collections 1-10; adjusts total number — Knows that last number represents total counted (cardinality principle) — Understands ordinal serialization (first, second, third) — Counts starting on a number other than 1 (e.g., "5, 6, 7, 8, 9") — Understands what it means to add or subtract ("if you add an object, you increase the number in the collection" and "if you take an object away, you decrease the number in a collection") — Identifies when object or objects have been added or subtracted to an array of 1-10 objects — Subitizes (instantly recognizes size of collection without counting) for collections up to 5 — Identifies substitution for an array of 1-10 objects

Ages 3 4 5	*Self-Regulation in Math Memory*
	— Imitates others' answers — Follows teacher's directions to use memory strategies — Remembers several of objects when array has 1-3 objects — Blurts out answer — Must be prompted to use strategies — Notices when objects are missing or subtracted — Notices when objects are unchanged — Notices when objects are added or substituted — Corrects buddy's answer — Sustains attention through entire activity — Remembers object names when array has 4-5 objects — Answers at approriate time — Remembers location of objects on grid that are added, subtracted or substituted — Seems to use strategies to remember and notice changes without prompting — Increases mental effort with more challenging sets. Says "This is hard"

Number Line Hopscotch

Ages 3 4 5	*Gross Motor Development in Number Line Hopscotch*
	— Jumps off a step with both feet; jumps in place with minimal crouch, may land on one or both feet (one foot ahead) — Jumps well in place — Jumps leading with one foot — Jumps from square to square with balance in a straight line — Hops on a preferred leg a short distance, but not onto squares — Jumps from square to square with balance and changes directions by turning body — Jumps from square to square with balance changing directions easily on cue (as other children count) — Hops onto 2-3 carpet squares in straight line. Puts both feet down to balance — Hops on cue, hops a distance of 5 feet in straight line without dropping other foot — Hops in different directions, but puts foot down part of time — Hops in different directions without putting both feet down

Ages 3 4 5	Self-Regulation in Number Line Hopscotch
	— Ignores directions for activity and watches other children
	— Jumps at random while in line not in time with counting
	— Imitates others: either counts or jumps or does hand motions while watching that child
	— Jumps while in line along with counting
	— Claps while saying the number along with group, but cannot inhibit other body movements
	— Claps while saying the number along with group as jumper jumps
	— Claps while saying the number independently, timing saying of the number and clapping to when jumper lands on the number

Ages 3 4 5	Number Concepts in Number Line Hopscotch
	— Uses some number words, but no number sequence, no order
	— Verbally recites numbers 1-10 with partially correct order
	— Jumps on number independent from saying number; may jump on a square more than once
	— Says number words in order 1-5 as other child jumps
	— Jumps on number when number is said if the numbers are in a straight line
	— Says number words in order 1-10 as other child jumps
	— Jumps on number when number is said when the numbers are mixed up but arranged so that each jump is forward from previous number
	— Corrects other child if he/she jumps to incorrect square
	— Counts 1-15 as other child jumps
	— Can count starting on any number other than 1
	— Jumps on correct number no matter where it is placed
	— Counts 1-20 as other child jumps, and can start on any number other than 1
	— Jumps on number no matter where it is placed 1-20
	— Counts 1-30 or higher
	— Jumps on number no matter where it is placed and what starting number is 1-30 and higher

Numerals Game

Ages 3 4 5	Number Concepts in Numerals Game
	— Uses some number words, but without number sequence, no order
	— Rote-counts numbers 1-5
	— Counts 1-3 objects
	— Matches objects one to one (*one-to-one correspondence*) with another set of objects for 1-5
	— Adds or subtracts one object; adjusts total number for 1-3 objects
	— Recognizes numerals 1-3
	— Knows that when two groups of objects have same number, "they are the same"
	— Can check and correct the other child for numbers 1-5
	— Counts 1-5 objects
	— Recognizes numerals 1-5
	— Adds or subtracts one object from small collections under 5; adjusts total number
	— Can say when *too many, too few,* or *correct number* before placing all objects on the Checking Sheet
	— Matches objects one to one (*one-to-one correspondence*) with another set of objects for 1-10 objects
	— Counts 1-10 objects
	— Recognizes numerals 1-10
	— Adds or subtracts objects from collections 1-10; adjusts total number
	— Knows that last number represents total counted (*cardinality principle*)
	— Counts starting on a number other than 1 (e.g., "5, 6, 7, 8, 9")
	— Understands what it means to add or subtract: "if you add an object, you increase the number in the collection" and "if you take an object away, you decrease the number in a collection"
	— Counts 1-15 objects
	— Knows that smaller numbers are first, larger numbers come later (*ordinal principle*)
	— Recognizes numerals 1-15
	— Counts any collection of objects (*abstraction principle*)
	— Understands that order of objects counted does not affect total number
	— Counts backwards from 10
	— Represents numbers by drawing
	— *Subitizes* (instantly recognizes size of collection without counting) for collections up to 5
	— Counts 1-20 objects. Recognizes numerals 1-20
	— Knows that larger number is made up of smaller numbers

Ages 3 4 5	Self-Regulation and Turn Taking in Numerals Game
	— Ignores the Hand and Check mediators and plays with objects — Is challenged by inhibiting own role of either Hand or Check — Places objects directly on card no matter which role — Other-regulates; corrects other person's actions by re-doing them for buddy — As Hand, remembers to place objects on Checking Sheet — As Check, checks by putting objects on Checking Sheet — Other-regulates verbally by reminding buddy of role actions — Knows the "job" for each role and is able to do that job — Can exchange roles and carry through with second role — Counts by touching the dots (one number to one dot) on Checking Sheet for numerals over 10 — Check remembers to give feedback to buddy — Has internalized roles and participates fully: taking turns, getting new cards, exchanging roles with ease — Can explain roles and rules of game

Puzzles, Manipulatives, and Blocks

Ages 3 4 5	Basic Concepts in Puzzles, Manipulatives & Blocks
	— Uses concepts in private speech or talking with teacher/peers when solving puzzles or playing with manipulatives: common colors (*red, blue, black, yellow, green*, etc.) — Uses concepts in private speech or talking with teacher/peers when solving puzzles or playing with manipulatives: *big/little, tall/short, long/short, on, in, down, up* — Uses concepts in private speech or talking with teacher/peers when solving puzzles or playing with manipulatives: *high/low, wide/narrow, thick/thin, deep/shallow, next to, outside, inside* — Identifies whether two objects are *same/longer/shorter, lighter/heavier, thinner/thicker* — Uses concepts in private speech or talking with teacher/peers when solving puzzles or playing with manipulatives: *underneath, below, over, under* — Uses concepts in private speech when solving puzzles or playing with manipulatives: *full/empty, light/heavy, bottom/top/middle; first, second, third; rectangle, triangle, circle, line* — Uses spatial terms relative to own body as well as relative to other people or objects

Ages 3 4 5	Self-Regulation in Puzzles, Manipulatives & Blocks
	— Does not self-correct: if picks a wrong piece, tries to push it into puzzle even when it does not fit
	— Imitates others
	— Follows teacher's physical directions (e.g., teacher places puzzle piece in specific way, child does the same or moves the piece in)
	— Follows teacher's oral directions (e.g., teacher says "turn your piece," turns piece)
	— Uses private speech to guide physical behavior and perform specific physical actions
	— Can complete familiar puzzle
	— Can complete new simple puzzle or construction
	— Remembers puzzle strategies and uses them deliberately, rather than just trial and error
	— Can complete more complex puzzle or construction
	— Uses language to discuss and name strategies
	— Suggests strategies to others
	— Can solve difficult puzzles with many pieces (100-piece puzzles)
	— Can sustain attention and effort despite frustration and completes puzzle over several days

Ages 3 4 5	Fine Motor Coordination in Puzzles, Manipulatives & Blocks
	— Grabs manipulative with full fist grasp
	— Manipulates small objects using pincer grasp
	— Places simple geometric shapes in puzzle or 3 or 4-piece puzzle
	— Strings large beads; uses pegboard with large pegs; stacks small wooden blocks; does fingerplay, but fingers do not work independently; squeezes and pounds modeling clay
	— Strings small wooden beads; works 5-piece puzzle; uses pegboard with small pegs; uses fingers more independently when manipulating objects; makes balls and uses tools with modeling clay (cookie cutter, etc.)
	— Works 12-piece puzzle; builds complex structures with small blocks; braids; uses fingers independently in fingerplays
	— Builds complex structures with small interlocking blocks; makes a pinch pot, coil pot, or sculpture. Works puzzles with many pieces (100 pieces)

Remember and Replicate

Ages 3 4 5	Fine Motor Coordination in Remember & Replicate
	— Slaps and pushes fingers into play dough
	— Squeezes, pounds, and flattens play dough
	— Makes and flattens balls by rolling on table
	— Rolls snakes on table
	— Rolls balls or snakes between hands
	— Can make smaller forms and forms of differing sizes by adjusting hands and fingers
	— Can make pinch pot

Ages 3 4 5	Basic Concepts in Remember & Replicate
	— Knows common colors: red, blue, black, yellow, green, etc. — Knows concepts *big/little, tall/short, long/short, on, in, down, up* — Knows *high/low, wide/narrow, thick/thin, deep/shallow, next to, outside, inside* — Knows *underneath, below, over, under* — Knows *full/empty, light/heavy, bottom/top/middle; first, second, third; rectangle, triangle, circle, line* — Identifies whether two objects are *same/longer/shorter, lighter/heavier, thinner/thicker* — Uses spatial terms relative to own body or relative to other people or objects when describing where objects are placed

Ages 3 4 5	Self-Regulation in Remember & Replicate
	— Watches others making shapes — Imitates others' actions — Follows teacher's directions as teacher gives them — Uses private speech to guide physical behavior and perform specific physical actions (e.g., making a ball) — Places playd ough on black dot, but cannot listen to directions without playing with theplay dough — Checks buddy's shapes when Check card is put out and comments — Checks own shapes and comments — Listens to teacher's directions, inhibits playing with play dough — Starts making shapes when Hand card is put out — Sustains attention: able to replicate shape without support — Attends to multiple attributes: able to replicate shape, number, size — Able to replicate shape, number, size, and placement of shape on the board — Increases mental effort with more challenging arrays

Science Eyes

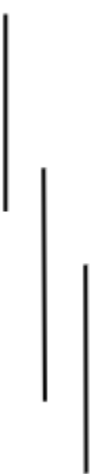| Ages 3 4 5	Drawing and Fine Motor Coordination Development in Science Eyes
	— Holds marker with fist grasp
	— Makes jabs and whole-arm scribbles when drawing
	— Draws over the figure; makes scribbles with spots of intense color; makes distinct dots, vertical lines, horizontal lines
	— Holds marker with three-point grasp, but may be too high or too low on instrument. Grasp is inconsistent, pressure on page incorrect
	— Draws circles and crosses
	— Draws simple representation of human figure (large circle with arms and legs coming out)
	— Scribbles with repeated features, leaves space for words
	— Draws representation of human figure with head and facial features, arms and legs still coming from head
	— Draws simple representation of objects
	— Draws human figure with body, arms and legs distinct and in correct places
	— Draws representation of object with specific features drawn
	— Writes letters of own name with inconsistent motor actions, letter order, size, and placement on line (mix of upper- and lowercase letters)
	— Draws lines for words, but does not have horizontal orientation, sweep; size varies inconsistently, not related to size of word, and no voice-to-line match
	— Writes letters of own name using correct motor action, but letter shape is not accurate1
	— Draws representation of object with critical features drawn
	— Draws lines in Scaffolded Writing with horizontal orientation, space for words, sweep, and size related to word size
	— Forms letters of own name with correct motor action and accurate shape
	— Can follow drawing directions or copy simple figures
	— Forms frequently used letters with correct motor action and accurate shape
	— Writes frequently used letters fluently
	— Copies most letters accurately
	— Writes all upper- and lowercase letters accurately in simple ball-and-stick formation

Ages 3 4 5	Conversational Turn Taking in Science Eyes
	— Is disengaged, looks elsewhere — Gives joint attention to the object — Attends to partner, but doesn't respond — Starts talking without looking at partner or at same time as partner — Attends to partner when partner starts sharing, but has difficulty being the listener; interrupts with own thoughts — Tells partner when out of turn, but doesn't follow own turn taking — Attends to partner and says own thoughts, not commenting on partner's thoughts — Can take one turn, listening and responding to what partner says — Participates in two turns: listening to buddy and talking and listening to buddy's response and talking — Monitors turn taking and inhibits speaking to allow partner to take turn — Has internalized rules of conversation and participates fully, engaging in a several-round exchange

Ages 3 4 5	Vocabulary Development in Science Eyes
	— Points or gestures or nods to acknowledge new word — Imitates name of object or new word — Corrects another child's use of new word — Labels object with new word on own — Imitates adjectives given by teacher to describe characteristic of object — Corrects another child's use of adjective — Uses adjective on own to describe characteristic of object — Connects to own experience ("It's pointy like the other one" "It's pointy like the one I have at home") — Describes more than one different aspects of objects — Uses range of vocabulary for size, shape, kind, color, texture, comparison — Uses new vocabulary in descriptions ("I see veins, and the stem is hard") — Uses vocabulary used by partner in responding to partner's observation and adds on own ideas ("I see ridges, too. The ridges are black")

Ages 3 4 5	*Scientific Concepts in Science Eyes*
	— Attends to world around him
	— Copies what other child says about objects
	— Makes own observations about attributes of objects, but attributes are undifferentiated
	— Says own version of what is observed
	— Observes similarities and differences between objects
	— Uses consistent categories for classification or can focus on one attribute
	— Develops everyday concepts (*same/different, more/less*)
	— Able to differentiate between relevant and irrelevant attributes
	— Confirms (or not) another's observations
	— Uses simple tools to make observations (magnifying glass, scales, etc.)
	— Asks questions about observable phenomena ("Why are trees so big?")
	— Makes predictions
	— Knows that objects can be perceived by different senses and that these senses give different information
	— Knows general properties of physical environment (seasons, weather, rocks, mountains, rivers, lakes, oceans, etc.)
	— Represents observation in more detail and can use language to describe what's recorded
	— Asks questions about inferred phenomena ("Why does a plant need roots?")
	— Asks questions about details of observations ("Why are there different kinds of hair on my dog?")
	— Uses everyday language to explain scientific phenomena
	— Begins to use scientific words to explain phenomena
	— Knows that physical properties of things can change (ice melts, etc.)
	— Conducts simple experiments with adult guidance to understand phenomena
	— Knows simple scientific concepts are based on observable world
	— Uses simple scientific concepts to explain natural phenomena
	— Understands how investigation or experiment can answer scientific questions
	— Classifies objects and things based on inferred attributes; knows some scientific categories (mammals vs. reptiles, objects that sink and objects that float, etc.)

Venger Drawing/Venger Collage

Ages 3 4 5	Fine Motor Skills (Scissors, Paste, Glue) in Venger Collage
	— Tears paper — Snips with scissors (cuts at edge of paper); holds scissors and paper incorrectly; uses large globs of paste or glue with little control — Makes one full cut with scissors (cuts one length of scissors); hand position may be incorrect — Cuts across paper 3 to 4 consecutive cuts with one hand holding the paper and other hand cutting; has difficulty cutting on straight line; uses globs of paste or glue, but with more control; uses index finger to apply paste — Cuts on straight line, moving paper hand forward; uses correct hand position; keeps paste and glue in right spot and uses reasonable amount — Cuts ona curved line — Cuts around designs with combination of straight and curved lines (basic shapes); cuts at angle (inside angle less than 90 degrees); cuts out obtuse and acute angles — Has sufficient bilateral hand coordination to cut out complex pictures with accuracy; uses scissors and paste/glue to make designs

Ages 3 4 5	Drawing and Fine Motor Coordination Development in Venger Drawing
	— Holds marker with fist grasp — Makes jabs and whole-arm scribbles when drawing — Holds marker with correct grasp, but goes in and out of using fist grasp — Draws over the figure; makes scribbles with spots of intense color; makes distinct dots, vertical lines, horizontal lines — Colors in or re-draws figure (colors the square, draws the outline) — Adds to figure, but does not incorporate it into drawing; uses horizontal and vertical lines, crosses, and circles in picture — Sees figure as part of larger figure, but may not be able to execute the drawing — Draws figure as part of another figure — Consistently holds marker with three-point grasp — Draws figure as part of another figure and adds other details — Makes proportional figures relative to size of geometric shape — Makes complex drawing with figure incorporated into it

Ages 3 4 5	Geometry Concepts in Venger Drawing/Venger Collage
	— Matches objects that are same shape, size, and color — Names the shape or learns the shape name from teacher — Makes shape into a picture where it is the object (a box, a ball) — Rotates shape and makes a picture where it is the object — Makes shape into a picture where it is a part of another object — Rotates shape and makes it into a picture where it is part of another object — Rotates shape and generates several ideas of what it can be — Adds second shape as part of drawing (Venger Collage) — Makes shape into a picture where it is a minor part of another object, incorporating shape into other shapes that form a picture — Incorporates several shapes as part of a complex picture

Suggested Modifications for Special Education, ELL and Gifted Students

Attribute Game

• If you have dual-language learners in your group, children can name the attributes in their home language. When possible, partner children with peers who can translate back and forth between languages. A deliberate pairing like this can make a significant difference in the first few times children engage in the activity, but as in all Tools activities, you will want to vary the pairings over time.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

I Have Who Has? Math

• Dual-language learners may name the colors, shapes, and numbers in their home languages. Help children say the name of the picture in English and in their home language. If you speak the child's home language, you and the other children can play the game in that language instead of English, or alternate in both languages. For example, in I Have—Who Has? Colors, a teacher might say, "Yo tengo azul. I have blue. ...¿Quién tiene rosa? Who has pink?" Remember that repetition is important when children are learning a second language.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give you ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Making Collections

• If you have dual-language learners in your group, encourage them to count in their home language as well as in English.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help you identify skills to focus on and strategies to support each child's

growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Math Memory

• If you have children who are dual-language learners, translate the names of the objects, shapes and attribute words into children's home languages. Encourage children to use private speech in both their home language and English.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Number Line Hopscotch

• Not all children will be able physically to jump on the numbers. Instead, a child can walk the number line, roll on it in a wheelchair, point to numbers drawn on a piece of paper, etc. With small adjustments, all children can participate.

• If you have dual-language learners in your group, encourage them to count in their home language as well as in English.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give ideas on how to work with children with a variety of needs so you can support their growth and development in this activity

Numerals Game

• It is important that children work at their own speed so that those who need more time processing have time to think. Children usually learn the numbers 1–5 very easily. For numbers greater than 5, children may miscount when dropping counters in the cup.

• If you have dual-language learners in your group, encourage them to count in their home language as well as in English.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current

independent level and target skills on which to focus. The Additional Scaffolds tab will give ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Puzzles, Manipulatives, and Blocks

• By October, most 4-year-olds will be able to put together simple wooden puzzles of 10–15 pieces.
• If you're supporting dual-language learners who speak Spanish, see the Tools Phrase Book on eTools with Spanish phrases and vocabulary you can use to talk with children about their work (including prepositional words). You can also customize the Phrase Book to include additional home languages spoken by children in your classroom.
• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Remember and Replicate

• If you have dual-language learners in your classroom, it is important that children understand what the shape is called in their home language as the child learns the shape name in English. Have a native speaker translate the words into the child's home language.
• Children with fine motor delays may need hand-on-hand support to make some forms; or they may need to "finish a form" instead of starting the form from scratch. You may need to help these children make the rolling motion with the palms of the hand. If modeling is not enough, put your hands on top of theirs to help them feel what their hands should feel like when making the form. Sometimes children need help with the placement of the fingers or the ability to hold the hand more stiffly when rolling the dough.
• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Science Eyes

• Remember that children will naturally differ in their abilities to verbalize observations, respond to their partner's observations, and use new vocabulary and multiple senses. As in other Tools activities, scaffold by assessing children's current independent level and targeting a scaffold to each child's ZPD.
• Continue to use icons and mediation to support nonverbal children's communication with partners in

this activity. A nonverbal child's partner can comment on the child's previous recorded observations in the Science Eyes Journal: *"You drew the caterpillar! It has yellow and black stripes. See, you drew them— yellow, black, yellow, black..."*

• The teacher can also scaffold a nonverbal child by using one describing word (e.g., green). The teacher can say the word or have the child use a communication board, pointing to the green icon or other icons to support the child's communication with their partner in this activity.

• If a child is a dual-language learner, encourage the child to describe what they see in the home language. Encourage pointing and gesturing if you do not speak the child's language, and supply the words. Help the child use visual analogies to communicate (e.g., "Brown like the table; *marrón como la mesa"*). Encourage children to think in the language they feel most comfortable using.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Venger Drawing/Collage

• To support children who need additional scaffolding to position the paper correctly for cutting, put a dot on one side of the paper. Tell the children to put their thumbs on the dot and hold the paper "thumbs up."

• If a child needs help holding scissors in the correct position, place a small piece of string on the top grip and tell the children to put their thumbs under the string. Children should cut holding the scissors "thumbs up."

• If you have dual-language learners in your classroom, children can name shapes and brainstorm in their home languages as well as in English. If there is a peer who can translate back and forth between languages, engage the peer in scaffolding classmates the first few times you implement the activity. The Tools Phrase Book on eTools provides activity phrases in both English and Spanish, and may be customized to reflect additional languages spoken in your classroom.

• There will be children who need additional support to engage in activities and meet learning goals. There will also be children who make faster progress toward learning goals who will need more challenge. Use iScaffold to help identify skills to focus on and strategies to support each child's growth and development. In iScaffold, the Developmental Trajectories tab will help identify a child's current independent level and target skills on which to focus. The Additional Scaffolds tab will give ideas on how to work with children with a variety of needs so you can support their growth and development in this activity.

Standards

MA.PK.4.1	Children begin to demonstrate an understanding of number and counting.
MA.PK.4.1.1	Count to 20 by ones with minimal prompting.
MA.PK.4.1.2	Recognize and name one-digit written numbers up to 10 with minimal prompting.
MA.PK.4.1.3	Know that written numbers are symbols for number quantities and, with support, be

	write numbers from 0 to 10.
MA.PK.4.1.4	Understand the relationship between numbers and quantities (i.e., the last word stated when counting tells "how many"):
MA.PK.4.1.4.a	Accurately count quantities of objects up to 10, using one-to one-correspondence, and accurately count as many as 5 objects in a scattered configuration.
MA.PK.4.1.4.b	Arrange and count different kinds of objects to demonstrate understanding of the consistency of quantities (i.e., "5" is constant, whether it is a group of 5 people, 5 blocks or 5 pencils).
MA.PK.4.1.4.c	Instantly recognize, without counting, small quantities of up to 3 or 4 objects (i.e., subitize).
MA.PK.4.1.5	Use one to one correspondence to solve problems by matching sets (e.g., getting just enough straws to distribute for each juice container on the table) and comparing amounts (e.g., collecting the number of cubes needed to fill the spaces in a muffin tin with one cube each).
MA.PK.4.1.6	Compare groups of up to 5 objects (e.g., beginning to use terms such as "more," "less," "same").
MA.PK.4.2	Children demonstrate an initial understanding of numerical operations.
MA.PK.4.2.1	Represent addition and subtraction by manipulating up to 5 objects:
MA.PK.4.2.1.a	putting together and adding to (e.g., "3 blue pegs, 2 yellow pegs, 5 pegs altogether."); and
MA.PK.4.2.1.b	taking apart and taking from ("I have four carrot sticks. I'm eating one. Now I have 3.").
MA.PK.4.2.2	Begin to represent simple word problem data in pictures and drawings.
MA.PK.4.3	Children begin to conceptualize measurable attributes of objects.
MA.PK.4.3.1	Sort, order, pattern, and classify objects by non-measurable (e.g., color, texture, type of material) and measurable attributes (e.g., length, capacity, height).
MA.PK.4.3.2	Begin to use appropriate vocabulary to demonstrate awareness of the measurable attributes of length, area, weight and capacity of everyday objects (e.g., long, short, tall, light, heavy, full).
MA.PK.4.3.3	Compare (e.g., which container holds more) and order (e.g., shortest to longest) up to 5 objects according to measurable attributes.
MA.PK.4.4	Children develop spatial and geometric sense.
MA.PK.4.4.1	Respond to and use positional words (e.g., in, under, between, down, behind).
MA.PK.4.4.2	Use accurate terms to name and describe some two-dimensional shapes and begin to use accurate terms to name and describe some three-dimensional shapes (e.g., circle, square, triangle, sphere, cylinder, cube, side point, angle).
MA.PK.4.4.3	Manipulate, compare and discuss the attributes of:
MA.PK.4.4.3.a	two-dimensional shapes (e.g., use two dimensional shapes to make designs, patterns and pictures by manipulating materials such as paper shapes, puzzle pieces, tangrams; construct shapes from materials such as straws; match identical shapes; sort shapes based on rules [something that makes them alike/different]; describe shapes by sides/angles; use pattern blocks to compose/decompose shapes when making and taking apart compositions of several shapes).
MA.PK.4.4.3.b	three-dimensional shapes by building with blocks and with other materials having height, width and depth (e.g., unit blocks, hollow blocks, attribute blocks, boxes, empty food containers, plastic pipe).
SCI.PK.5.1	Children develop inquiry skills.
SCI.PK.5.1.1	Display curiosity about science objects, materials, activities, and longer-term investigations in progress (e.g., ask who, what, when, where, why, and how questions

	during sensory explorations, experimentation, and focused inquiry).
SCI.PK.5.1.2	Observe, question, predict, and investigate materials, objects, and phenomena during classroom activities indoors and outdoors and during any longer-term investigations in progress. Seek answers to questions and test predictions using simple experiments or research media (e.g., cracking a nut to look inside; putting a toy car in water to determine whether it sinks).
SCI.PK.5.1.3	Use basic science terms (e.g., observe, predict, experiment) and topic-related science vocabulary (e.g., words related to living things [fur, fins, feathers, beak, bark, trunk, stem]; weather terms [breezy, mild, cloudy, hurricane, shower, temperature]; vocabulary related to simple machines [wheel, pulley, lever, screw, inclined plane]; words for states of matter [solid, liquid]; names of basic tools [hammer, screwdriver, awl, binoculars, stethoscope, magnifier]).
SCI.PK.5.1.4	Communicate with other children and adults to share observations, pursue questions, make predictions, and/or conclusions.
SCI.PK.5.1.5	Represent observations and work through drawing, recording data, and "writing" (e.g., drawing and "writing" on observation clipboards, making rubbings, charting the growth of plants).
SCI.PK.5.2	Children observe and investigate matter and energy.
SCI.PK.5.2.1	Observe, manipulate, sort, and describe objects and materials (e.g., water, sand, clay, paint, glue, various types of blocks, collections of objects, simple household items that can be taken apart, or objects made of wood, metal, or cloth) in the classroom and outdoor environment based on size, shape, color, texture, and weight.
SCI.PK.5.3	Children observe and investigate living things.
SCI.PK.5.3.1	Investigate and compare the basic physical characteristics of plants, humans, and other animals (e.g., observing and discussing leaves, stems, roots, body parts; observing and drawing different insects; sorting leaves by shape; comparing animals with fur to those with feathers).
SCI.PK.5.3.2	Observe similarities and differences in the needs of living things, and differences between living and nonliving things (e.g., observing and discussing similarities between animal babies and their parents; discussing the differences between a living thing, such as a hermit crab, and a nonliving thing, such as a shell).

Essential Questions

Starting open-ended questions:

1. What would happen if...

2. What do you think about...

3. I wonder...

4. In what way...

5. Tell me about...

6. How can we...

7. What would you do...

8. How did you...

9. Why do you think…

After asking your child an open-ended question, allow quiet time for them to think before responding to your comment or question. Young children often need extra time to decide what to say and how to say it.

Diversity and Cultural Awareness

I Have Who Has? Math

• Learning to say the stem in different home languages is a great way to build cultural awareness and connections between the children in your classroom. Teach children to play I Have—Who Has? using the home languages of children in your class to say the stem. For example, children might say the stem in Spanish (e.g., "*Yo tengo cinco*; I have 5. ...*¿Quién tiene ocho?* Who has 8?"). If English is the primary language of instruction in your classroom, have children use English to name the target skill (letters or sounds) to build fluency.

Math Memory

• Chopsticks, fork, pretend foods (sushi, flatbread, dim sum, latkes, etc.)

Number Line Hopscotch

• Number Line Hopscotch is a fun activity in which to practice counting in multiple languages. As the year goes on, explore counting in a few languages represented in your classroom or wider community.

Remember and Replicate

• Include culturally relevant vocabulary to name each of the the three forms. The flattened circle can be so much more than a pancake! It could be a tortilla, roti, injera or lavash. Balls could be gulab jamun, mochi or matzo balls, and snakes could be udon, ramen or chorizo.

Science Eyes

• Musical instruments from a variety of cultures are a good collection for Science Eyes. Percussion instruments like maracas, djembe and taiko drums, stringed instruments like guitars, sitars and ouds, and wind instruments like recorders, harmonicas and didgeridoos allow children to explore using the senses of sight, sound and touch. Children explore rhythm, tempo and pitch and use vocabulary like *wood, metal, string, skin, keys, loud, soft, heavy, light* and *more.*

Venger Drawing/Collage:

• Encourage children to represent their culturally diverse experiences in their drawings and collages, for example using shapes to show a favorite food they enjoy with their family (e.g., a smaller circle on a larger circle is a tortilla on a plate).