Unit 05: Ch.5 Addition

Content Area: **Template**
Course(s):
Time Period: **Full Year**
Length: **FY**
Status: **Published**

Standards Alignment

New Jersey Student Learning Standards

MA.K.OA	Operations and Algebraic Thinking
MA.K.OA.A	Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
MA.K.OA.A.1	Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
MA.K.OA.A.2	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
MA.K.OA.A.3	Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).
MA.K.OA.A.4	For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
MA.K.OA.A.5	Demonstrate fluency for addition and subtraction within 5.

Integration of Career Readiness, Life Literacies and Key Skills

CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP3	Attend to personal health and financial well-being.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.
CRP.K-12.CRP10	Plan education and career paths aligned to personal goals.
CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.

Technology / Integration of Computer Science and Design Thinking

TECH.8.1.2	Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
TECH.8.1.2.A	Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations
TECH.8.1.2.A.4	Demonstrate developmentally appropriate navigation skills in virtual environments (i.e., games, museums).
TECH.8.1.2.C	Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
TECH.8.1.2.C.1	Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media.
TECH.8.1.2.E	Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
TECH.8.1.2.E.1	Use digital tools and online resources to explore a problem or issue.

Interdisciplinary Connections: NJSLS for ELA, Social Studies, Science and/or Math Section

Capacities of the Literate Individual
Students Who are College and Career Ready in Reading, Writing, Speaking, Listening, & Language

They demonstrate independence.

They build strong content knowledge.

They respond to the varying demands of audience, task, purpose, and discipline.

They value evidence.

They use technology and digital media strategically and capably.

MATH.K-12.1	Make sense of problems and persevere in solving them
LA.K-12.NJSLSA.R	Reading
	Key Ideas and Details
MATH.K-12.2	Reason abstractly and quantitatively

LA.K-12.NJSLSA.R1	Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
MATH.K-12.4	Model with mathematics
MATH.K-12.5	Use appropriate tools strategically
LA.RI.K.1	With prompting and support, ask and answer questions about key details in a text.
LA.K-12.NJSLSA.SL1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
LA.K-12.NJSLSA.SL3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.
LA.K-12.NJSLSA.SL6	Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.
LA.SL.K	Speaking and Listening
	Comprehension and Collaboration
LA.SL.K.1	Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
LA.SL.K.1.A	Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
LA.SL.K.1.B	Continue a conversation through multiple exchanges.
LA.SL.K.3	Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
LA.SL.K.6	Speak audibly and express thoughts, feelings, and ideas clearly.

Integration of Diversity, Equity and Inclusion; Climate Change; Informational and Media LiteracyNew Section

see Crosswalks

21st Century Life and Careers

Stage I: Desired Results

Transfer/Overview/Rationale

Transfer / Overview / Rationale

Unit Rationale

The purpose of this unit…

Modeling sums with concrete objects is an important part of learning to add.

Meaning

Essential Questions

Essential Questions

1. How can you show addition as adding to or putting together?

2. How can solve problems by using the strategy *act it out*?

3. How can you use objects and drawings to solve addition word problems?

4. How can you use a drawing to find the missing number that makes a 10 from a given number and complete the addition sentence?

5. How can you decompose, model, and write addition sentences for number pairs for sums of 5, 6, 7, 8, 9 and 10?

Enduring Understanding/Indicators of Understanding

Enduring Understanding/Indicators of Understanding

- Addition can be represented in many ways including objects, drawings, symbols, addition sentences, and words.

- Numbers can be broken apart and recombined in more than one way.

- Addition can be putting together sets or adding to a set.

Acquisition (Student Learning Objectives)

Knowledge

Knowledge

Students will know…

Vocabulary (TE p.227H)

add, is equal to, plus, ten

Continue vocabulary practice with - pair, six, seven, eight, nine

Content

- Employ addition strategies to put sets together or to add to a given set.
- Decompose, model, and write an equation for number pairs 5-10.
- Use drawings, objects, equations, and the strategy act it out to model and solve addition problems.
- Find a missing addend for 10.

Skills

Skills

Student will be skilled at …

1. Use expressions to represent addition.

2. Solve problems by using the strategy *act it out*.

3. Manipulate objects and drawings to solve addition word problems within 5 and justify with an equation.

4. Demonstrate using drawings or models how to find 10 from a given number and write the equation.

5. Decompose numbers into pairs in more than one way and record each decomposition with an equation.

Stage 3: Learning Plan

Resource and Mentor Texts

Resources and Mentor Texts

1. GO Math! Teacher Edition: Chapter 5 Addition

   - Vocabulary Builder: TE page 229
   - Chapter Game: Pairs That Make 7 page 230
   - Vocabulary Game: Bingo pg. 230A
   - The Write Way Journal Prompt: TE page 230B

2. Grab and Go! kit

   - Literature Connections: Pancakes for All and Flowers for Flossie
   - additional leveled readers and games

3. Think Central (link below)

- Personal Math Trainer
- Interactive Student Edition
- Math on the Spot Videos
- Animated Math Models
- Reteach/Enrich pages (or see the Google Folder)
- Hands on Tier 1 and 2 Reteach Activities (or see the Google Folder)

Background Content for Teachers:

Teaching for Depth (TE p.227E)

- Modeling sums with concrete objects is an important part of learning to add. They use context to shape their concrete and thinking and challenging methods.
- Children need hands on objects to make sense of decomposing numbers as they make number pairs.
- Children can make sense of addition through joining cube trains, manipulatives, and pictures.
- Children need to see concrete examples to help them understand the addends and sum in an addition sentence.

Think Central
Google Folder

Formative Assessment Strategies

Formative Assessment Strategies

Daily Formative Assessments:

- Teacher Observation
- Math Log, Notebook, or Journal
- Student Math Book- Share and Show & On Your Own
- Differentiated Center Activities and Instruction

Go Math! Specific Formative Assessments:

- Show What You Know (to start the chapter)
    - tiered small group intervention as needed
- Daily Share and Show questions, problem solving, and application
    - used to create small reteach, enrich, and check in groups
- Mid Chapter Check Point
    - revisit lesson specific skills whole class or small group
- End of Chapter Review
    - revisit lesson specific skills whole class or small group prior to summative assessment

Learning Activities/Unit of Study

Learning Activities/Unit of Study

Lesson Components: (See TE per lesson to guide your lesson planning.)

1. Engage/Connection from yesterday
    - Daily Routines: Problem of the Day/Math Board
2. Teach whole group mini-lesson
    - New skill is presented and explained by the teacher
3. Active Engagement
    - on the rug or central meeting spot
    - an opportunity for students to try the new skill
    - use manipulatives, white boards, and possibly Animated Math Models
    - partner work is fine at this point
4. Guided Practice
    - at students' seats or in small group, Go Math! workbook pages
    - use manipulatives whenever possible
    - some problems should be completed independently
5. Formative Assessment
    - teacher quickly reviews students' work for accuracy and independence to formulate groups for centers based on student needs; reteach, enrichment, and check in groups
6. Differentiated Center Rotations (ASP teachers present for part)
    - at least 2 centers, 3-4 is ideal
    - centers should relate to the chapter and lesson of the day
    - for center activity ideas, refer to the

Google Folder Link below

Modifications and/or Accommodations

Suggested Modifications (ELL, Sp. Ed, GIfted, At-risk of Failure)

English Language Learners

Native language support: The teacher provides auditory or written content to students in their native language.

Adjusted Speech: The teacher changes speech patterns to increase student comprehension. This could include facing the students, paraphrasing, clearly indicating the most important ideas, and speaking more slowly.

Visuals: The teacher uses graphics, pictures, visuals, and manipulatives. This helps ELL students better understand and comprehend the subjects at hand.

Front-Loading Vocabulary: The teacher front loads vocabulary. This means providing students with a list of important vocabulary words they will need to know for a book, lesson, etc. prior to the lesson being taught. Including pictures to go with the vocabulary words is also very beneficial for the students.

Special Education Students

Chunking: The teacher presents information in a way that makes it easy for students to understand and remember. Chunking is based on the presumption that our working memory is easily overloaded by excessive detail. The best way to deliver information is to organize it into meaningful units. Because students with special needs get overloaded easily, chunking is an effective strategy to use with them.

Checking for Understanding: It is important to constantly check for understanding, especially for students who have accommodations. Teachers want to make sure students understand the concepts being covered in a way that makes sense to them.

Extra time: The teacher provides students with special needs extra time to complete work or answer questions. It is important to give students enough time to process their thoughts.

Oral Reading: The teacher will read work orally to students. Class work such as tests and literature circles may need to be read aloud to the student.

Timers: The teacher will use timers as an instructional tool. The use of timers is beneficial for students who have trouble completing tasks. Timers can be helpful so the student is aware of how much time they have to complete an assignment.

Students with 504 Plans

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Gifted & Talented Strategies

Extensions/Enrichments: Teachers will provide gifted and talented students with extension/enrichment projects. Students will be challenged to further their understanding, to apply acquired knowledge, and/or to produce something in reference to acquired knowledge.

Modify/Change Activities: Teachers will monitor and modify activities to accommodate those students who need to be challenged further. Additional reading, problem-solving, writing, or project work is necessary for those students who are ready to move on at a rate more accelerated than their peers. In this way, G & T students are provided the same opportunity for support as special needs students.

Students at Risk of School Failure

Directions or Instructions: Make sure directions and/or instructions are given in limited numbers. Give directions/instructions verbally and in simple written format. Ask students to repeat the instructions or directions to ensure understanding occurs. Check back with the student to ensure he/she hasn't forgotten.

Peer Support: Peers can help build confidence in other students by assisting in peer learning. Many teachers use the 'ask 3 before me' approach. This is fine, however, a student at risk may have to have a specific student or two to ask. Set this up for the student so he/she knows who to ask for clarification before going to you.

Alternate or Modified Assignments: Always ask yourself, "How can I modify this assignment to ensure the students at risk are able to complete it?" Sometimes you'll simplify the task, reduce the length of the assignment or allow for a different mode of delivery. For instance, many students may hand something in, the at-risk student may jot notes and give you the information verbally. Or, it just may be that you will need to assign an alternate assignment.

Increase One to One Time: When other students are working, always touch base with your students at risk and find out if they're on track or needing some additional support. A few minutes here and there will go a long way to intervene as the need presents itself.

Contracts: It helps to have a working contract between you and your students at risk. This helps prioritize the tasks that need to be done and ensure completion happens. Each day write down what needs to be completed, as the tasks are done, provide a checkmark or happy face. The goal of using contracts is to eventually have the student come to you for completion sign-offs.

Hands On: As much as possible, think in concrete terms and provide hands-on tasks. This means a child doing math may require a calculator or counters. The child may need to tape record comprehension activities instead of writing them. A child may have to listen to a story being read instead of reading it him/herself.

Tests/Assessments: Tests can be done orally if need be. Break tests down in smaller increments by

having a portion of the test in the morning, another portion after lunch and the final part the next day.

Seating: Seat students near a helping peer or with quick access to the teacher. Those with hearing or sight issues need to be close to the instruction which often means near the front.