Math-Kindergarten-Unit 1

Content Area: **Math**
Course(s):
Time Period: **Trimester 1**
Length: **3 weeks**
Status: **Published**

Course Pacing Guide

Students construct meaning with authentic mathematical problems using a variety of strategies. Through mathematical discussions students justify and explain their thinking. Students are using manipulatives as tools to solve problems and represent thinking. They may use math journals to represent through models and record thinking.

Section 1 - Counting	MP -1	3 weeks
Section 2 - Shapes	MP -1	3 weeks
Section 3 - Number Sequence	MP -1	3 weeks
Section 4 – Measurement, Count by 10's	MP -1	3 weeks
Section 5 - Teen Numbers, Operation symbols	MP-2	4 weeks
Section 6 - 3D Shapes, Subtraction, Measurement	MP -2	4 weeks
Section 7 - Addition & Subtraction	MP-2	4 weeks
Section 8 - Making 10	MP- 2	3 weeks
Section 9 - Addition & Subtraction	MP-2	3 weeks

Unit Overview

Section 1 Overview

Counting: Children will practice the order of number words through counting games, songs, rhymes, and as they do the Daily Routines. They will also count and count out sets of objects.

Developing Number Sense: Children will be encouraged to notice numbers all around them and to discover the many ways numbers are used. They will also work to represent numbers in many ways.

Enduring Understandings

- Counting tells how many are in a set, regardless of their arrangement or the order in which they were counted.
- There is a unique symbol that goes with each number word.

Essential Questions

- How do you know how many objects are in a set? If the objects are rearranged, how many will there be then?

New Jersey Student Learning Standards (No CCS)

Counting and Cardinality

K.CC A. Know number names and the count sequence. 1. Count to 100 by ones and by tens.

B. Count to tell the number of objects. 4. Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. c. Understand that each successive number name refers to a quantity that is one larger.

Amistad Integration

Holocaust/Genocide Education

Interdisciplinary Connections

SCI.K-ESS3-2	Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.

Technology Standards

8.1.2.A.4

Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

8.1.P.A.5

Demonstrate the ability to access and use resources on a computing device.

21st Century Themes/Careers

HPE.2.2.8.A.2	Demonstrate the use of refusal, negotiation, and assertiveness skills when responding to peer pressure, disagreements, or conflicts.

9.2.4.A.4

Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success

Financial Literacy Integration

Grades K-4

9.1.4.B.1 Differentiate between financial wants and needs.

9.1.4.B.2 Identify age-appropriate financial goals.

9.1.4.B.3 Explain what a budget is and why it is important.

9.1.4.B.4 Identify common household expense categories and sources of income.

9.1.4.B.5 Identify ways to earn and save.

9.1.4.C.1 Explain why people borrow money and the relationship between credit and debt.

9.1.4.C.2 Identify common sources of credit (e.g., banks, credit card companies) and types of credit (e.g., loans, credit cards, mortgages).

9.1.4.C.3 Compare and contrast credit cards and debit cards and the advantages and disadvantages of using each.

9.1.4.C.4 Determine the relationships among income, expenses, and interest.

9.1.4.C.5 Determine personal responsibility related to borrowing and lending.

9.1.4.C.6 Summarize ways to avoid credit problems.

9.1.4.D.1 Determine various ways to save.

9.1.4.D.2 Explain what it means to “invest.”

9.1.4.D.3 Distinguish between saving and investing.

9.1.4.E.1 Determine factors that influence consumer decisions related to money.

9.1.4.E.2 Apply comparison shopping skills to purchasing decisions.

9.1.4.F.1 Demonstrate an understanding of individual financial obligations and community financial obligations.

9.1.4.F.2 Explain the roles of philanthropy, volunteer service, and charitable contributions, and analyze their impact on community development and quality of living.

9.1.4.G.1 Describe how valuable items might be damaged or lost and ways to protect them.

Instructional Strategies & Learning Activities

Engaging Experience 1 Teaching Point: Today I’m going to teach you that you can count 1, 2, and 3 objects by using counters and recording your answer. Teaching Point: Today I’m going to teach you that you can count groups of 1, 2, and 3 objects by recognizing that they can be shown in different ways.

One way to do this is to use lesson 1-1 to teach that counting tells how many are in a group, regardless of their arrangement or the order in which they were counted. The last number said when counting a group is the total. Counting is cumulative.

Engaging Experience 3 Teaching Point: Today I’m going to teach you that you can read and write the numbers 1, 2, and 3 by using a unique symbol for each number word

One way to do this is to use lesson 1-3 to teach that there is a unique symbol that goes with each number word.

Differentiated Instruction

- Inquiry/Problem-Based Learning

· Learning preferences integration (visual, auditory, kinesthetic)

· Sentence & Discussion Stems

· Tiered Learning Targets

· Learning Through Play

· Meaningful Student Voice & Choice

· Choice Boards

· Mastery Learning (feedback toward goal)

· Goal-Setting & Learning Contracts

· Game-Based Learning

· Flexible Grouping

· Rubrics

· Learning Menus

· Math games with Mentor Buddy

· Learning Through Workstations

· Student Interest & Inventory Data

- Number scrolls beyond 100

Formative Assessments

EDM Assessment Check-Ins

Summative Assessment

Report Card Assessments

Benchmark Assessments

End-of Year Math Assessment

Alternate Assessments

Resources & Technology

Apps and Websites:

Number Flash, Splash Math, Math Bingo

http://em-ccss.everydaymathonline.com/g_login.html

http://www.abcya.com/

BOE Approved Texts

EDM Program

Closure

- Math Celebration - audience writes feedback on post-it notes for each student

· Snowstorm - Students write down what they learned on a piece of scratch paper and wad it up. Given a signal, they throw their paper snowballs in the air. Then each learner picks up a nearby response and reads it aloud.

· Parent Hotline - Include an interesting question about the lesson (along with the answer) in parent communications so that the topic can be discussed over dinner.

· Gallery Walk - On chart paper, small groups of students write and draw what they learned. After the completed works are attached to the classroom walls, others students affix post-its to the posters to extend on

the ideas, add questions.

· Have students write down three quiz questions (to ask at the beginning of the next class).

· Kids answer the following prompts: "What takeaways from the lesson will be important to know three years from now? Why?

ELL

· Alternate Responses

· Advance Notes to Parents or Educational Assistants

· Extended Time

· Teacher Modeling

· Simplified Verbal Instructions and Pictorial Instructions

· Frequent Breaks

· E-Dictionaires

· Google Translate

Special Education

·Shorten assignments to focus on mastery of key concepts.

· Shorten written assignments to focus on mastering the most functional concept/skill.

· Substitute alternatives for written assignments (clay models, posters, panoramas, collections, etc.)

· Specify and list exactly what the student will need to learn to pass.

· Evaluate the classroom structure against the student's needs (flexible structure, firm limits, etc.).

· Keep workspaces clear of unrelated materials.

· Keep the classroom quiet during intense learning times.

· Reduce visual distractions in the classroom (mobiles, etc.).

· Provide an IPad for math practice.

· Seat the student close to the teacher or a positive role model.

· Use a study carrel. (Provide extras so that the student is not singled out.)

· Provide an unobstructed view of the chalkboard, teacher, movie screen, etc.

· Keep extra supplies of classroom materials (pencils, books) on hand.

· Maintain adequate space between desks.

· Give directions in small steps and in as few words as possible.

· Number and sequence the steps in a task.

· Have student repeat the directions for a task.

· Provide visual aids.

· Go over directions orally.

· Permit as much time as needed to finish work and tests.

· Allow tests to be taken in a room with few distractions (e.g., the library).

· Divide tests into small sections of similar questions or problems.

· Allow the student to complete an independent project as an alternative test.

· Give progress reports instead of grades.

· Show a model of the end product of directions (e.g., a completed math problem or finished quiz).

· Stand near the student when giving directions or presenting a lesson.

· Provide assistance from classroom educational assistant

· Permit a student to rework missed problems for a better grade.

- Provide math manipulatives

- preferential seating
- extended time on tests and assignments
- reduced homework or classwork
- verbal, visual, or technology aids
- modified textbooks or audio-video materials
- behavior management support
- adjusted class schedules or grading
- pre-approved nurse's office visits and accompaniment to visits
- occupational or physical therapy
    - assistance from classroom educational assistant

At Risk

At Risk

- Use of mnemonics
- Have student restate information
- Provision of notes or outlines
- Concrete examples
- Use of a study carrel
- Assistance in maintaining uncluttered space
- Weekly home-school communication tools (notebook, daily log, phone calls or email messages)
- Worksheets with highlighted instructions
- Graph paper to assist in organizing or lining up math problems
- Use of manipulatives
- No penalty for reversals or sloppy handwriting
- Follow a routine/schedule

- Teach time management skills
- Verbal and visual cues regarding directions and staying on task
- Adjusted assignment timelines
- Visual daily schedule
- Immediate feedback
- Work-in-progress check
- Preview test procedures
- Cue/model expected behavior
- Use de-escalating strategies
- Use peer supports and mentoring
- Have parent sign homework/behavior chart
- Chart progress and maintain data

Gifted and Talented

Focus on effort and practice

Offer the Most Difficult First

Offer choice

Speak to Student Interests

Allow G/T students to work together

Encourage risk taking