

Math-Kindergarten-Unit 9

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

In this unit, students will gain fluency for addition and subtraction within 5, learn to represent addition and subtraction problems within 10 and decompose numbers less than or equal to 10 in more than one way.

Enduring Understandings

● Separating parts from a whole is one interpretation of subtraction. ● Taking part of a group away is one interpretation of subtraction. ● Comparing two quantities to find how much more/less one quantity is than the other is one interpretation of subtraction.

Joining parts to make a whole is one interpretation of addition. ● Joining groups can be shown in an addition expression that uses the plus sign (+) ● Addition number sentences using + and = can be used to show parts of a whole.

Essential Questions

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

Essential Questions: ● What is subtraction? ● How can we use objects, images, and other representations to show subtraction?

New Jersey Student Learning Standards (No CCS)

K.R.A.A.2 Demonstrate fluency for addition and subtraction within 5.

K.R.A.A.1 Represent (and solve) addition and subtraction (problems) within 10.

Amistad Integration

Holocaust/Genocide Education

Interdisciplinary Connections

LA.L.K.2.C

Write a letter or letters for most consonant and short-vowel sounds (phonemes).

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.
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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 want to teach you that you can show numbers in many ways.

Engaging Experience 2 Teaching Point: Today I want to teach you that you can represent addition as adding to a number using cubes and pictures

Engaging Experience 3 Teaching Point: Today I want to teach you that you can represent addition as putting two or more numbers together using counters and/or pictures.

Engaging Experience 4 Teaching Point: Today I want to teach you that you can write an equation to show addition by using the plus sign and equal sign to join groups together. you that you can represent addition as putting two or more numbers together using counters and/or pictures.

Engaging Experience 5 Teaching Point: Today I want to teach you that you can solve addition problems using math tools and drawings to show your thinking.

Engaging Experience 6 Teaching Point: Today I want to teach you that you can use equations to represent and explain addition using manipulatives.

Engaging Experience 7 Teaching Point: Today I want to teach you that you can add numbers together using patterns.

Engaging Experience 8 Teaching Point: Today I want to teach you that you can model adding different numbers together by drawing, counting, or writing equations

Engaging Experience 1 Teaching Point: Today I want to teach you that you can show numbers in many ways using counters, fingers and pictures.

Engaging Experience 2 Teaching Point: Today I want to teach you that you can take apart a number and tell the parts using pictures.

Engaging Experience 3 Teaching Point: Today I want to teach you that you can represent subtraction as taking away from a whole using counters and pictures.

Engaging Experience 4 Teaching Point: Today I want to teach you that you can write an equation to show subtraction with counters, pictures and math symbols.

Engaging Experience 5 Teaching Point: Today I want to teach you that you can find the difference of two numbers by listening to story problems and using pictures to solve the problems.

Engaging Experience 6 Teaching Point: Today I want to teach you that you can find patterns in subtraction

equations by using your number order knowledge.

Engaging Experience 7 Teaching Point: Today I want to teach you that you can subtract numbers by choosing the best tool to solve the problem.

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-Dictionaries
- 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

