Grade 1 Mathematics – Unit 1: Number Sense to 10

Phoenixville Area School District

Stage 1 Desired Results

PA Core Standards:

CC.2.1.1.B.1 Extend the counting sequence to read and write numerals to represent objects.

CC.2.2.1.A.1 Represent and solve problems involving addition and subtraction within 20.

CC.2.2.1.A.2 Understand and apply properties of operations and the relationship between addition and subtraction.

Transfer

TRANSFER GOALS

Students will be able to independently use their learning to…

- *Number Sense:* Develop a sound foundation to demonstrate the value of numbers by dissecting their various representations, relationships and patterns.
- *Fluency:* Demonstrate automatic recall of addition, subtraction, multiplication and division facts.
- *Problem Solving:* Persistently apply various problem-solving strategies and organized approaches to accurately understand and solve problems.
- *Mathematical Vocabulary:* Interpret mathematical vocabulary and apply proper terminology to engage in meaningful oral and written expression that communicates mathematical thinking, problem solving methods and rationale.

Meaning

UNDERSTANDINGS

Students will understand that…

- There are many ways to represent a number.
- Identifying relationships between numbers helps classify and compare them.
- Operations and numerical properties increase computational fluency.
- Depending on the situation, problems may be solved using a variety of tools and strategies.

ESSENTIAL QUESTIONS

Students will keep considering...

- What are the different ways to represent a number?
- How can I use models and words/expanded form to order and compare numbers?
- How are the basic operations related to one another?
- What information and strategies do I use to solve this problem? What is the right tool for the job?

	Knowledge and Skills Acquisition	
	KNOWLEDGE *Students will know…* • Numbers to 10 • How to show parts and whole in a number bond • Compare numbers to 10 • Ordinal numbers and positional words • Addition and subtraction symbols • Addition and subtraction strategies • Addition and subtraction sentences and real-world word problems VOCABULARY • Fact Families • Part • Whole • Add • Subtract • Number Bond	SKILLS *Students will be skilled at…* **Counting** • Reading and writing numbers up to 10 in word, numerical, and expanded form. • Counting from 0 to 10 from any starting point, forwards and backwards, orally or in writing (including, one less/one more, count on to add, count pictures/objects, and number trains). • Using ordinal numbers to describe order and relative position. • Comparing numbers 0 to 10, using the terms more than, less than, and equal to. • Making and extending number patterns with numerals 0-10. **Number Bonds** • Relating pictures to number bonds. • Finding missing parts and identifying the whole to complete a number bond. • Using number bonds to add and subtract in any order. • Writing fact families. **Addition and Subtraction** • Using pictures to tell addition and subtraction stories in verbal and written forms. • Writing and solving addition and subtraction sentences and real-world word problems, using fact families.

Stage 2 – Evidence			
Code A/M/T	**Evaluative Criteria**	**Assessment Evidence**	
A/M		Unit 1 Test Part 1: Numbers to 10 (Math in Focus Chapter 1 Test Prep) Combination of multiple choice and fill in the blank questions. • Count groups of objects and select number in numeral and word form • Extend counting sequence by 1 • Identify 1 more than a group of items • Select a number less than another • Given a number in word form, write the numeral • Given groups of objects, select groups that have the same, and more • Find missing numbers in a counting sequence • Count a group of items and write the number in word form • Compare groups of items using terms *more, the same, and fewer*. • Identify numbers that are more than a given number and less than a given number.	
M/T	*Rubric*	PERFORMANCE TASK(S) *Students will demonstrate understanding (meaning-making and transfer) through complex performance by...* **Performance Task A: Fall Harvest Parade** Students will complete a parade diagram. • *Goal:* Your task is to put fall festival parade characters in order so the parade can start on time and each character parades in the right order. • *Role:* You are the parade coordinator • Audience: Phoenixville Area Early Learning Center community members • *Situation:* You will need to order the characters based off of provided directions. • *Product:* You will order pictures of the characters in order for how they should parade. • *Success Criteria:* Given sequence-based criteria (fourth, first, next, last) students will logically sequence all the characters to meet the appropriate criteria.	Differentiation Considerations: [Work on this section after completing Stages 1-2 of all units]

MT	*Rubric*	PERFORMANCE TASK *Students will demonstrate understanding (meaning-making and transfer) through complex performance by...* **Performance Task B: Flower Bouquet Designs** Students will complete a parade diagram. • *Goal:* Your task is to find all of the different ways to create a bouquet using two different types of flowers. Each bouquet will have the same number of flowers in all but should have different combinations of the two types of flowers. • *Role:* You are the florist • Audience: Flower shop owner • *Situation:* You will need to create different bouquet designs using two different types of flowers while having each bouquet have the same total number of flowers in all. • *Product:* You will draw each bouquet design to show visual for the shop owner and shop customers to see the variety of bouquets they can purchase. • *Success Criteria:* Each bouquet should have a different combination of flowers that total the same number of flowers.	Differentiation Considerations: Students could use more than two types of flowers to create combinations (more than two parts to create a whole) Use flower pictures instead of drawing for students with fine motor concerns.
A/M		Unit 1 Test Part 3: Addition & Subtraction Combination of multiple choice and fill in the blank questions. • Given a picture, identify matching number sentence • Add two numbers together to find sums within 10 • Solve real world story problems and write matching number sentence used to find answer • Use a picture to complete a number bond (identifying parts and whole) and write matching addition sentence. • Solve a number sentence and find a related fact using opposite operation • Subtract one number from another • Take away to find what is left	