Pre-First Curriculum Benchmarks: Math

Counting and Cardinality

Term	Counts in Sequence
1	Demonstrates one-to-one correspondence up to 20, and tells how many in all. Count on from any given number to 30. Begin to skip count by 10s.
2	Count up to 25 objects with one-to-one correspondence, and tell how many in all. Count on from any given number to 75. Skip count by 10s to 50. Begin skip count by 5s.
3	Count up to 50 objects with one-to-one correspondence, and tell how many in all. Count on from any given number up to 110. Consistently skip count by 5s to 110. Consistently skip count by 10s to 110.
Term	**Knows the Number Names and Represents a Number of Objects**
1	Identify digits 0-15. Begin to write numbers. Represent any given number 0-15 using manipulatives and/or drawings.
2	Identify digits 0-20. Some written numbers are in the correct format. Represent any given number 0-20 using manipulatives and/or drawings.
3	Identify digits 0-25 All written numbers are in correct format. Represent any given number 0-25 using manipulatives and/or drawings.

Operations and Algebraic Thinking

Term	Represents and solves story problems involving addition and subtraction within 10
1	NA
2	Identify addition and subtraction situations with support.
	Solve addition and subtraction situations (using manipulatives and drawings) up to 10.
3	Identify addition and subtraction situations.
	Solve addition and subtraction situations (possibly using manipulatives and drawings) up to 10.
	Represent solutions with written expression.

Term	Demonstrates an understanding of the relationship between addition and subtraction
1	NA
2	Relate counting to addition and subtraction. Ex: Count on 2 to add 2.
3	Relate counting to addition and subtraction. Ex: Count on 2 to add 2.
	Understand fact families through 10. Ex: 7+2=9 so 9-2=7 and 9-7=2

Term	Identifies complements of 10 *A rating of a 4 is unavailable*
1	For numbers 1-5, represent the number that makes 5 when added to a given number, by using objects or drawings
	Decompose numbers less than or equal to 5 into pairs in more than one way, by using manipulatives, and record each with drawings or equations.
2	For numbers 1-9, represent the number that makes 10 when added to a given number, by using objects or drawings
	Decompose numbers less than or equal to 10 into pairs in more than one way, by using manipulatives, and record each with equations.
3	For numbers 1-9, represent the number that makes 10 when added to a given number, by using objects or drawings.
	Decompose numbers less than or equal to 10 into pairs in more than one way and record each with equations.

Term	Uses strategies to add and subtract within 10.
1	Add and subtract within 5 using math tools.
2	Add and subtract within 5 using math tools.
3	Add and subtract within 10 using math tools.

Number and Operations in Base 10

Term	Reads, Writes, and Compare Numbers
1	Compare up to 15 objects using terms: equal, different.
2	Compare numbers between 1 and 25 objects using terms: less than, greater than, and equal.
3	Compare numbers between 1 and 50 presented as written numerals using terms: less than, greater than, and equal to.

Term	Demonstrates Understanding of Place Value
1	NA
2	Demonstrates an understanding of place value with 1s and 10s up to 19.
3	Demonstrates an understanding of place value with 1s and 10s up to 50.

Measurement and Data

Term	Understands Measurement **A rating of a 4 is unavailable**
1	Describe and compare measurable attributes using terms: longer, taller, shorter, and equal.
2	Describe and compare measurable attributes using terms: longer, taller, shorter, equal, lighter, heavier, and equal.
3	Describe and compare measurable attributes using terms: longer, taller, shorter, equal, lighter, heavier, and equal.

Term	Represents and Interprets Data
1	NA
2	Organize and represent data.
3	Organize and represent data. Ask and answer questions based on the data.

Term	Tells and writes time from analog and digital clocks to the hour
1	NA
2	NA
3	Tells and writes time from analog and digital clocks to the hour.

Term	*Identifies US coins by name and tells value of coins*
1	NA
2	Identify and name pennies, nickels, and dimes.
3	Identify, name and tell value of pennies, nickels, and dimes.

Geometry

Term	Uses Appropriate Shape and Spatial Vocabulary *A rating of a 4 is unavailable*
1	Identify 2-dimensional shapes (square, circle, triangle, rectangle, trapezoid, hexagon) regardless of their orientations or overall size. Identify 3-dimensional shapes (cube, cone, cylinder, sphere) regardless of their orientations or overall size.
2	Identify 2-dimensional shapes (square, circle, triangle, rectangle, trapezoid, hexagon) regardless of their orientations or overall size. Describe objects in the environment using names of 2-dimensional shapes and spatial vocabulary such as: above, below, beside, in front of, behind, and next to.
3	Identify 2-dimensional shapes (square, circle, triangle, rectangle, trapezoid, hexagon) regardless of their orientations or overall size. Describe objects in the environment using names of 2-dimensional shapes and spatial vocabulary such as: above, below, beside, in front of, behind, and next to. Identify 3-dimensional shapes (cube, cone, cylinder, sphere) regardless of their orientations or overall size. shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

MATHEMATICAL PRACTICE

Listed are examples of mathematical practice. Practice and evidence are embedded in lessons. Like the content standards, Mathematical Practices are scored by term. If a student is meeting the expectations of each lesson's mathematical practice, he/she is meeting the term expectations or benchmarks.

Term	*MAKES SENSE OF PROBLEMS AND PERSEVERES IN SOLVING THEM*
1	• Students use concrete objects or pictures to help conceptualize and solve problems. • Students check their thinking: "Does this make sense" or they may try another strategy.
2	• Students begin to recognize that a number represents a specific quantity and connect the quantity to written symbols.
3	• Students begin to recognize patterns or structures. (i.e. every teen number is written with a 1; 3 + 2 = 5 and 2 + 3 = 5) • Students notice repetitive actions in counting and computation. (i.e. next number in counting is one more or ten more)

Term	*MODELS AND EXPLAINS USING TOOLS* *MPS.3, MPS.4, MPS.5, MPS.6*
1	• Students participate in mathematical discussions. (ie: "How did you get that? and "Why is that true?)
2	• Students represent problems in multiple ways including numbers, words, drawings, and using objects. • Students have knowledge of multiple strategies/tools and decide when certain strategies /tools are better to use.
3	• Students begin to use clear and precise language in mathematical discussions*.*