GRADE 2

Success in the teaching and learning of mathematics is built on the cumulative understanding of the concepts of fluency and continuity from grade level to grade level.

Instructional time should focus on four critical areas; (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.

STANDARD:

- Numbers and Operations in Base Ten (2NO + DTM)

Essential Questions:

- How can grouping be used to count, measure and estimate?
- Why is place value based on ten?

CONCEPT	CONTENT
Numbers and Operations in Base Ten	Read, clearly write and order numbers 0 to 1000
Concept Development	***Know place values to thousands* (*millions)**
	Recognize and utilize ordinals numbers to 50th
Concept Development	***Count forward and backward to and from 50***
Concept Development	***Recognize odd and even numbers (CCSSM)***
Concept Development	***Count using even or odd number patterns***
	Recognize, write and match number words zero through 50
	Recognize numbers up to 5 more or 5 less from starting number
	Recognize, identify and use fractions (equal parts, quarters, thirds, halves and whole) *Recognize, identify and use fractions (sixths and eighths)
	Recognize and use the symbols greater than, less than and equal to (CCSS)
	Write numbers in expanded notation up to 999
	Round numbers to the nearest ten and hundred
	Memorize addition and subtraction facts through 18
	*Memorize addition and subtraction facts through 30
	Identify missing numbers on a number line to 50
	Use both horizontal and vertical formats in addition and subtraction
	Explore addition and subtraction of two digits numbers with and without regrouping using concrete objects or models.
Concept Development	***Add and subtract up to three digit numbers (CCSSM)***
	Skip counting (2's, 3's, 5's and 10's) *(4's, 6's) And connect to multiplication facts to 2 and 5
	Use commutative property of addition
	Use inverse relationships of addition and subtraction in fact families
	Understand when to use addition or subtraction in word problems

STANDARDS:

- Geometry (2G + DTM)
- Measurement and Data (2MD + DTM)

Essential Questions:

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- What is elapsed time on a calendar?
- How can you measure distance, weight or capacity?

CONCEPT	CONTENT
Geometry	Compare size and position of objects
	Recognize symmetrical figures; identify and draw lines of symmetry
Concept Development	***Create congruent and similar figures***
	Draw a diagonal in a rectangle to form two triangles
	Match and qualify solid (3-dimensional) figures
	Identify shape and quantity of faces and corners (vertices) of 3-dimensional figures
	Describe and analyze two and three-dimensional shapes by their sides and angles
	Use flips (reflections), slides (translations) and turns (rotations)
Measurement and Data	Estimate length, width, height, weight, perimeter, area and volume using metric and customary units of measurement to nearest centimeter, meter, inch, foot, kilogram, pound, liter, cup (*nearest kilometer, yard, mile, pint, gallon, gram, ounce, ton)
	Relate addition and subtraction to length (CCSS)
	*Measurement of perimeter and area
	Measure length of objects in different units (CCSS)
	Represent and interpret data
	*Compare temperatures on a thermometer in Celsius and Fahrenheit degrees
Concept Development (Financial Literacy)	***Count and make change to a dollar***
Financial Literacy	***Recognize the value of a dollar in relation to other coins***
Financial Literacy	***Identify and use dollar and cent sign***
Financial Literacy	****Identify the difference between credit or debit***
	Identify time on analog and digital clock to the hour, half, quarter and five minute intervals
	Elapsed time on a calendar

STANDARD:

- Operations and Algebraic Thinking (2OA + DTM)

Essential Questions:

- What does "n" represent in the equation 6 + n = 10?
- What patterns can be used to continue a sequence?

CONCEPT	CONTENT
Operations and Algebraic Thinking	Classify equivalent and non-equivalent groups by more than one attribute
	Use proper vocabulary when explaining patterns
	Identify missing numbers in a sequence up to 1000
	Work with equal groups of objects to gain foundations for multiplication
	Find missing addends and subtrahends up to 18 (* up to 30)
	Insert correct operation sign (addition, subtraction) in vertical or horizontal problem

STANDARD:

- Statistics and Probability (2SP + DTM)

Essential Questions:

- How can information be gathered, recorded, analyzed and organized?
- How do the survey results influence the type of graph drawn?
- How will your outcomes change if you change your sample size?

CONCEPT	CONTENT
Statistics and Probability	Take a survey using real life situations, tally and graph the results.
	Interpret and compile pictographs, line plots ***(CCSSM)***, horizontal and vertical bar graphs.
	Perform simple probability activities
	Investigate outcomes of various experiments
	Utilize Venn Diagrams