CCISD Mathematics Curricular Calendar – First Grade   2014-2015

The process standards describe ways in which students are expected to engage in the content. The placement of the process standards at the beginning of the knowledge and skills listed for each grade and course is intentional. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. The process standards are integrated at every grade level and course. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, algorithms, paper and pencil, and technology and techniques such as mental math, estimation, number sense, and generalization and abstraction to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, computer programs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Unit 1 – Financial Literacy August 25-September 5 & the all year	Unit 2 – Interpreting & Symbolizing Addition and Subtraction September 8-26
Coins • Identify U.S. coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them • Write a number with the cent symbol to describe the value of a coin **Financial Literacy** • Define money earned as income • Identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs • Distinguish between spending and saving • Consider charitable giving	**Addition & Subtraction** • Use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem • Generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20 **Identify and Apply Number Patterns & Properties of Numbers and Operations** • Represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences • Understand that the equal sign represents a relationship where expressions on each side of the equal sign represent the same value(s) • Apply properties of operations to add and subtract two or three numbers **Financial Literacy** • Define money earned as income • Identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs • Distinguish between spending and saving • Consider charitable giving

Unit 3 – Internalizing Number Combinations to 10, Developing Strategies for Addition & Subtraction to 10, & Linear Measurement September 29 – December 5	
Addition & Subtraction to 10 • Compose 10 with two or more addends with and without concrete objects • Use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem • Compose 10 with two or more addends with and without concrete objects **Identify and apply number patterns within properties of numbers and operations** • Represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences • Understand that the equal sign represents a relationship where expressions on each side of the equal sign represent the same value(s) • Determine the unknown whole number in an addition or subtraction equation when the unknown may be any one of the three or four terms in the equation • Apply properties of operations to add and subtract two or three numbers	**Linear Measurement** • Use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement • Illustrate that the length of an object is the number of same-size units of length that, when laid end-to-end with no gaps or overlaps, reach from one end of the object to the other • Describe a length to the nearest whole unit using a number and a unit **Financial Literacy** • Define money earned as income • Identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs • Distinguish between spending and saving • Consider charitable giving

Unit 4 – Data Analysis
December 8 – December 19

Graphing	Financial Literacy
• Collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts • Use data to create picture and bar-type graphs • Draw conclusions and generate and answer questions using information from picture and bar-type graphs	• Define money earned as income • Identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs • Distinguish between spending and saving • Consider charitable giving

Unit 5 – Geometry, Fractions, and Time
January 5 – January 30

Geometry	Fractions
• Classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language • Distinguish between attributes that define a two-dimensional or three-dimensional figure and attributes that do not define the shape • Create two-dimensional figures, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons • Identify two-dimensional shapes, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons and describe their attributes using formal geometric language • Identify three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes), and triangular prisms, and describe their attributes using formal geometric language • Compose two-dimensional shapes by joining two, three, or four figures to produce a target shape in more than one way if possible	• Partition two-dimensional figures into two and four fair shares or equal parts and describe the parts using words • Identify examples and non-examples of halves and fourths **Time** • Tell time to the hour and half hour using analog and digital clocks **Financial Literacy** • Define money earned as income • Identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs • Distinguish between spending and saving • Consider charitable giving

Unit 6 – Developing Addition & Subtraction Strategies to 20
February 2 – March 27

Addition and Subtraction to 20

- Apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to 10
- Explain strategies used to solve addition and subtraction problems up to 20 using spoken words, objects, pictorial models, and number sentences
- Generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20

Identify and apply number patterns within properties of numbers and operations

- Represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences
- Understand that the equal sign represents a relationship where expressions on each side of the equal sign represent the same value(s)
- Determine the unknown whole number in an addition or subtraction equation when the unknown may be any one of the three or four terms in the equation
- Apply properties of operations to add and subtract two or three numbers

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Unit 7 – Place Value to 120
March 30 – June 5

Place Value to 120

- Recognize instantly the quantity of structured arrangements
- Use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones
- Use objects, pictures, and expanded and standard forms to represent numbers up to 120
- Generate a number that is greater than or less than a given whole number up to 120
- Use place value to compare whole numbers up to 120 using comparative language
- Order whole numbers up to 120 using place value and open number lines
- Represent the comparison of two numbers to 100 using the symbols >, <, or =

Addition & Subtraction

- Use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99

Coins

- Use relationships to count by two, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes

Identify and apply number patterns within properties of numbers and operations

- Recite numbers forward and backward from any given number between 1 and 120
- Skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set
- Use relationships to determine the number that is 10 more and 10 less than a given number up to 120

Measurement: Length and Time

- Use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement
- Illustrate that the length of an object is the number of same-size units of length that, when laid end-to-end with no gaps or overlaps, reach from one end of the object to the other
- Measure the same object/distance with units of two different lengths and describe how and why the measurements differ
- Tell time to the hour and half hour using analog and digital clocks

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