Grade 1 Numeracy Blueprint

1st	Mathematical Process Standards	Developing an Understanding of Place Value	Solving Problems Involving Addition and Subtraction	Analyzing Attributes of Two-Dimensional Shapes and Three-Dimensional Solids	Developing the Understanding of Length
By the end of the year, the student will be able to:	• Apply mathematics to problems arising in everyday life, society, and the workplace • Use a problem-solving model • Select tools, technology, and techniques to solve problems • Communicate mathematical ideas, reasoning, and their implications • Create and use representations to organize, record, and communicate mathematical ideas • Analyze mathematical relationships to connect and communicate mathematical ideas • Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication	• Use objects, pictures, and expanded and standard forms to represent numbers up to 120 • Represent the comparison of two numbers to 100 using the symbols >,<, or = • 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 • 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 • Recite numbers forward and backward from any given number between 1 and 120 • Use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels and/or dimes • Draw conclusions and generate and answer questions using information from picture and bar-type graphs • Identify U.S. coins including pennies, nickels, dimes, and quarters by value and describe the relationships between them • Write a number with the cent symbol to describe the value of a coin • 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	• Generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20 • Represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences • Apply properties of operations to add and subtract two or three numbers • Use concrete and pictorial models to determine the sum of a multiple of ten and a one-digit number in problems up to 99 • Use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the term in the problem • Compose 10 with two or more addends with and without concrete objects • Apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10 • Explain strategies used to solve addition and subtraction problems up to 20 using spoken words, objects, 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 three or four terms in the equation	• Classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language • 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, and triangular prisms, and describe their attributes using formal 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 • 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	• Describe a length to the nearest whole unit using a number and a unit • 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 end of the object to the other • Measure the same object/distance with units of two different lengths and describe how and why the measurement differ
The teacher will:	• Provide opportunities for students to communicate and justify solutions to problems orally and in written form • Provide opportunities for students to organize and solve problems • Provide opportunities for students to solve problems individually, in pairs, and in small groups • Provide opportunities to use mathematical vocabulary • Provide opportunities to use technology to solve problems	• Provide opportunities counting in sequence while matching each word with a concrete object • Provide experiences using a variety of counting activities, strategies, and tools such as a hundreds chart, ten-frame, or dot cards	• Provide experiences in taking numbers apart and putting them back together in a variety of ways • Provide opportunities to develop strategies to solve basic addition and subtraction facts using concrete objects • Provide opportunities to use mathematical vocabulary • Provide experiences in modeling story problem situations with concrete objects and technology	• Provide opportunities for students to recognize and name real-life shapes • Provide experiences describing geometric attributes of objects • Provide experiences for students to create models of two-and three- dimensional shapes with materials such a sticks and clay • Provide opportunities for students to draw shapes	• Provide experiences using a variety of different objects to identify measureable attributes
Parents can:	• Play board games that require your child to make choices • Ask your child to explain what they learned in math today • Read a variety of materials to your child and ask questions pertaining to the content • Set aside time to do daily math homework	• Count the number of steps both forwards and backwards from the bedroom to the kitchen • Use everyday life experiences while shopping at the grocery store and riding in the car to count objects • Sort objects into groups of ten • Skip count by two, five, or ten while jumping rope, clapping, or playing catch • Allow your child to sort a collection of cans or boxed groceries such as vegetables, pasta, etc. • Sort and identify a jar of coins including pennies, nickel, and dimes	• Create addition and subtraction story problems about favorite television or book characters and draw pictures • Use two different counters such as beans and noodles to determine all the possible combinations of the same number • Play games such as "What number comes next?" or "What number is missing?"	• Play games such as "I Spy" to identify and describe shapes • Draw and build shapes made of household items • Cut apart foods such as sandwiches, cookies or sliced cheese into halves or fourths • Cut out pictures from magazines or find images using the internet that represent 2D and 3D shapes	• Use common household items such as paper clips, cereal, or pasta to measure lengths • Have conversations with your child about length • Go on a "Scavenger Hunt" with your child to find items that are close to 1 inch, 1 foot, 1 yard, etc