GSD Parents' Guide for 1st Grade
Utah Core State Standards for Mathematics

The Utah Core State Standards for Mathematics addresses *Standards for Mathematical Practice* and *Standards for Mathematical Content*. The standards stress not only procedural skill but also conceptual understanding, to make sure students are learning the critical information they need to succeed at higher levels.

By using the *Standards for Mathematical Practice*, students make sense of problems, persevere in solving them, and attend to precision. They look for and make use of structure and express regularity in repeated reasoning. They reason abstractly and quantitatively, and they construct viable arguments and critique the reasoning of others. Students model with mathematics and use appropriate tools strategically.

The following *Standards for Mathematical Content* define what students should understand and be able to do in their study of first grade mathematics:

Operations and Algebraic Thinking
- Use addition and subtraction within 20 to solve word problems by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- Solve word problems involving addition of three whole numbers whose sum is less than or equal to 20 by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- Apply properties of operations as strategies to add and subtract. *For example, if 8 + 3 = 11 is known, then 3 + 8 = 11 is also known by the Commutative Property of Addition.*
- Understand subtraction as an unknown-addend problem. *For example, to find 10 – 8, find the number to add to 8 to make 10.*
- Relate counting to addition and subtraction. *For example, count on 2 to a number when adding 2.*
- Add and subtract within 20. Demonstrate fluency for addition and subtraction within 10.
- Understand the meaning of the equal sign. Determine if addition and subtraction equations are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.*
- Determine the unknown whole number in addition and subtraction equations that relate to three whole numbers. *For example, determine the unknown whole number that makes 8 + ? = 11 true.*

Number and Operations in Base Ten
- Count to 120 starting at any number. Read and write numerals within 120. Represent a number of objects within 120 with a written numeral.
- Understand that the digits in a two-digit number represent tens and ones.
- Understand that 10 can be thought of as a bundle of ten ones called a "ten."
- Understand that the numbers 11 to 19 are composed of a ten and a set number of ones. *For example, 13 is composed of a ten and three ones.*
- Understand that the numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 refer to a set number of tens. *For example, 40 is four tens.*
- Compare two two-digit numbers based on the meanings of the tens and ones digits. Record the comparison with the symbols >, <, or =.
- Add within 100. Add a two-digit number and a one-digit number. Add a two-digit number and a multiple of ten. Understand that in addition, ones are added to ones and tens are added to tens. Understand that regrouping ones to compose a ten is sometimes necessary.
- Mentally find 10 more or 10 less than a given number without having to count. Explain the reasoning used to find the answers.
- Subtract multiples of 10 in the range of 10-90 from multiples of 10 in the range of 10-90. Explain the reasoning used to find the answers. *For example, solve 80 – 30.*

Measurement and Data
- Order three objects by length. Compare the lengths of two objects indirectly by using a third object.
- Express the length of an object as a whole number of length units. Understand that length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.
- Tell and write time in hours and half-hours using analog and digital clocks.
- Organize, represent, and interpret data with up to three categories. Ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Geometry
- Distinguish between defining and non-defining attributes of shapes. *For example, defining attributes of a triangle include "closed" and "three-sided," while non-defining attributes might include "red" or "small."* Build and draw shapes to possess defining attributes.
- Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create composite shapes. Compose new shapes from the composite shape.
- Partition circles and rectangles into two and four equal shares. Describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.