Mathematics (Grade 1)

Course Description:

The curriculum for this course is developed from the Common Core State Standards for Mathematics. Throughout the first grade year, instructional time will focus on four critical areas: (1) developing strategies for addition and subtraction within 20, (2) developing understanding of whole number relationships and place value, including grouping in tens and ones, (3) developing understanding of linear measurement, and (4) reasoning about attributes, composing, and decomposing geometric shapes.

Mastery Standards:

Operations and Algebraic Thinking

- Apply properties of operations as strategies to add and subtract.2 *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)* (1.OA.B.3)
- Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). (1.OA.C.5)
- Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 - 4 = 13 - 3 - 1 = 10 - 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 - 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). (1.OA.C.6)
- Understand the meaning of the equal sign, and determine if equations involving addition and subtraction 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. (1.OA.D.7)

Number and Operations in Base Ten

- Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. (1.NBT.A.1)
- Understand that the two digits of a two-digit number represent amounts of tens and ones. (1.NBT.B.2)
- Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. (1.NBT.B.3)
- Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. (1.NBT.C.5)

Measurement and Data

- Order three objects by length; compare the lengths of two objects indirectly by using a third object. (1.MD.A.1)
- Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.* (1.MD.A.2)

Unit	Description of Unit and Learning Targets
Unit Title: Operations and Algebraic Thinking Essential Questions: ● What is the relationship of addition to subtraction? ● What are helpful strategies you can	Students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers. Students understand connections between counting and addition and subtraction. Learning Targets: ● I can make a fact family using addition and subtraction. ● I can use strategies to add and subtract within 20.

use for addition and subtraction facts? ● What is the meaning of an equal sign?	● I can add and subtract within 10 fluently. ● I can understand the meaning of the equal sign.
Unit Title: Number and Operations in Base Ten Essential Questions: ● How can I demonstrate counting, reading and writing numbers to 120? ● What do two digit numbers represent? ● How can the numbers 0-99 be compared and ordered? ● How can I add and subtract using groups of 10 within 100?	Students develop, discuss, and use efficient and accurate methods to add within 100 and subtract multiples of 10. Students develop an understanding of whole numbers in terms of tens and ones. Learning Targets: ● I can count to, read, and write numbers to 120. ● I can understand that a two digit number is represented by tens and ones. ● I can compare and order two-digit numbers. ● I can add and subtract ten within 100.
Unit Title: Measurement and Data Essential Questions: ● How can I compare and measure objects using non-standard units?	Students develop an understanding of the meaning and processes of measurement, including time. Learning Targets: ● I can compare and measure objects using non-standard units.