G-E-T Elementary Curriculum

Align, Explore, Empower

Scope and Sequence

Math - Grade 1

Unit 1	*Partners and Number Patterns Through 10*	~ 4 Weeks

In this unit, students will discuss and visualize numbers from 1 to 10. Additionally, they will focus on various ways to make 10.

This unit includes the following:

- Representing numbers from 1-10
- Visualizing 5-groups and ones
- Partners for numbers 2-10

The students will:

(Mastery)

Apply properties of operations as strategies to add and subtract.

Relate counting to addition and subtraction.

Demonstrate fluency for addition and subtraction within 10.

(Practice)

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and

comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Add and subtract within 20. 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).

Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.

Unit 2	*Addition and Subtraction Strategies*	~ 5 Weeks

In this unit, students will represent numerical situations involving addition and subtraction. They will also make connections between addition and subtraction.

This unit includes the following:

- Utilizing a variety of strategies to model a situation including objects, drawings, fingers and equations
- Composing and decomposing two addends
- Practicing fluency for addition and subtraction within 10

The students will:

(Mastery)

Apply properties of operations as strategies to add and subtract.

Relate counting to addition and subtraction.

Demonstrate fluency for addition and subtraction within 10.

Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.

(Practice)

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Add and subtract within 20. 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).

Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.

Unit 3	*Unknown Numbers in Addition and Subtraction*	~ 5 Weeks

In this unit, students will use strategies to solve addition and subtraction problems, including those with an unknown addend. Students will also continue to develop their fluency with addition and subtraction to 10.

This unit includes the following:

- Incorporating a variety of strategies to solve problems such as Math Mountains, circle drawings and equations
- Listening to and interpreting story problems to solve an unknown addend
- Using counting on and counting to strategies to solve addition and subtraction problems

The students will:

(Mastery)

Relate counting to addition and subtraction.

Demonstrate fluency for addition and subtraction within 10.

(Practice)

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand subtraction as an unknown-addend problem.

Add and subtract within 20. 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).

Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.

Unit 4	*Place Value Concepts*	~ 6 Weeks

In this unit, students will learn to represent 2-digit numbers with objects, cards or drawings. They will also gain a solid foundation for place value with tens and ones.

This unit includes the following:

- Comparing why a number is greater than or less with reasoning using tens and ones
- Adding groups of tens or ones to form a new number
- Utilizing a variety of strategies to solve problems

The students will:

(Mastery)

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.

Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

Demonstrate fluency for addition and subtraction within 10.

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.

Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

a. 10 can be thought of as a bundle of ten ones — called a "ten."
b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.

c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

(Practice)

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Add and subtract within 20. 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).

Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = _ - 3, 6 + 6 = _.*

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

Unit 5	*Place Value Situations*	~ 5 Weeks
In this unit, students will solve addition and subtraction story problems with teen totals. Additionally, they will further explore the patterns and relationships between multiples of 10.		

This unit includes the following:

- Providing reasoning to find a number that is 10 more or 10 less
- Counting and composing numbers to 120
- Solving addition problems with three addends
- Modeling adding or subtracting multiples of 10 using place value knowledge and the relationship between addition and subtraction

The students will:

(Mastery)

Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., 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.2 *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known.*

Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

Demonstrate fluency for addition and subtraction within 10.

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.

Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

(Practice)

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand subtraction as an unknown-addend problem.

Add and subtract within 20. 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).

Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Unit 6	*Comparisons and Data*	~ 4 Weeks

In this unit, students will represent and compare data using a multitude of tools.

This unit includes the following:

- Exploring data about a variety of topics
- Collecting data sets with three categories
- Using strategies including comparison bars and drawings to solve compare problems

The students will:

(Mastery)
Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

(Practice)

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

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.

Unit 7	*Geometry, Measurement and Equal Shares*	~ 4 Weeks

In this unit, students will work on measuring both time and length as well as partitioning shapes into equal shares.

This unit includes the following:

- Developing an understanding of how to measure length using objects
- Telling time on digital and analog clocks to the hour and half-hour
- Decomposing shapes into halves and fourths

The students will:

(Mastery)

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, 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.

(Practice)

Tell and write time in hours and half-hours using analog and digital clocks.

Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); 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 a composite shape, and 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.

Unit 8	*Two-Digit Addition*	~ 3 Weeks

In this unit, students use models or drawings based on place value to progress development of the relationship between addition and subtraction.

This unit includes the following:

- Exploring strategies and methods to solve 2-digit addition problems
- Using models or drawings to represent numbers

The students will:

(Mastery)

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.