Course Description:

During the first semester students will build fluency with basic math facts. They will learn to count to 100, basic addition and subtraction facts, and how to add double-digit numbers. Students will be introduced to such new concepts as word problems, Venn diagrams, and basic geometric concepts.

There is an emphasis on learning practical skills such as reading thermometers, looking at maps, and understanding the value of coins.

Students will have multiple opportunities to practice new skills and knowledge through using integrated online practice problems.

Major Concepts:

- Counting to 100
- Counting strategies
- Addition of three numbers; double digit addition
- Understanding even and odd numbers
- Recognizing geometry in daily life
- Introduction to word problems
- Introduction to Venn diagrams
- Elementary probability

Module	Lesson Title	Objectives
1	From Zero to Nine	• Use the numerals 0 to 9.
	Grouping and Counting	• Group and count similar items. • Skip count by 2.
	Name that Numeral	• Write the correct numeral for a given set. • Create numerals out of common materials. • Write the numerals 1 to 9.
	Number the Bones	• Fill in missing numbers when counting by 1.
2	Stack the Blocks & Shapes	• Learn the concept of 10. • Recognize, describe and create patterns of shape.
	The New Zoo	• Match a set with an equal number of items. • Use colors and shapes to represent pattern of shapes.

Module	Lesson Title	Objectives
2	Higher or Lesser	• Select the set with the most and fewest items. • Determine the higher or lesser value in a pair of numerals from 0 to 9.
3	Eleven and Comparing Length	• Learn the concept of 11. • Compare longer and shorter.
	Adding Pairs	• Adding pairs of numbers.
	Twelve and Logic Puzzles	• Learn the concept of 12. • Make a selection based on observation of clues.
	Count It!	• Counting up and down. • Skip count by 2.
	Position Words	• Identify comparison and position word pairs.

Module	Lesson Title	Objectives
4	Ten: Addition Facts	• Practice the addition facts of 10.
	Pattern Finder	• Observe and recreate patterns using visual memory.
	Coins!	• Recognize pennies, nickels and dimes. • Adding pennies, nickels and dimes. • Using the cents symbol.
	Nonstandard Measurements	• Measure objects using non-standard units.
5	The Hour	• Reading the hour on a clock.
	Even or Odd	• Compare figures and group them into sets.

Module	Lesson Title	Objectives
5	Position Words: Inside or Outside	• Identify a point's location using the words inside and outside.
	Equivalent Sums	• Create equivalent but easier or known sums up to 10.
	Take Away the Veggies	• Subtract 2 numbers with a minuend less than 6.
	Subtraction Facts	• Practice subtraction facts.
6	Regrouping	• Add 3 numbers with a sum less than 10. • Practice regrouping.
	One Less	• Identify a set that has 1 less item than a given set. • Identify shared characteristics of members of a set.

Module	Lesson Title	Objectives
6	Eleven: Addition Facts	• Correctly do the addition facts of 11.
7	Missing Numbers	• Fill in missing numbers counting up or down. • Give and follow directions using location terms.
	Minuends Less Than 8	• Subtract 2 numbers with a minuend less than 8. • Identify similarities and differences between like objects.
	Horizontal Numbers	• Add and subtract 2 numbers horizontally. • Identify vertical, diagonal and horizontal objects.
8	Twelve: Addition Facts	• Practice the addition facts of 12. • Use tally marks to count.
	Count to 29	• Count up to 29. • Add 2 numbers starting with the larger number. • Measure and compare temperatures.

Module	Lesson Title	Objectives
8	Weight	• Compare the weights of objects. • Identify similarities and differences between like objects.
	Minuends Less than 10	• Subtract 2 one-digit numbers with a minuend less than 10. • Put events into order.
9	Number Words: One to Ten	• Recognize words zero, one, two, three, four, five, six, seven, eight, nine, and ten.
	Represent Numbers	• Represent numbers in multiple ways. • Represent numbers with movement.
	Double Digit Addition	• Add one- and two-digit numbers with a sum less than 20.
	Shape Shades	• Find multiple geometric shapes in one complex figure.

Module	Lesson Title	Objectives
10	Do You Have Enough?	• Count money and determine if there is enough to make a purchase. • Observe and recreate patterns using visual memory.
	The Greatest Value	• Select the number with the greatest value.
	The Least	• Select the number with the least value. • Determine which of four objects weighs the least.
	Thirteen: Addition Facts	• Select the number with the least value. • Determine which of four objects weighs the least.
	The Nearest Inch	• Measure a line segment to the nearest inch.
11	Combinations	• Combine shapes to form new geometric shapes.

Module	Lesson Title	Objectives
11	Subtraction Number Sentences	• Write number sentences using subtraction.
	Subtraction Facts to 12	• Subtract facts up through 12. • Practice subtraction facts of 12 and 13 using listening skills.
	Ordinals: First to Tenth	• Recognize and write ordinals first through tenth.
12	Count to 39	• Count up to 39. • Create triangles and other shapes from rectangular pieces.
	The Half Hour	• Tell time by the half hour. • Solve logic problems.
	Group by 10's	• Group by ten when counting. • Weigh various objects.

Module	Lesson Title	Objectives
12	Creating Shapes	• Create geometric shapes by moving lines. • Add 3 one-digit numbers with a sum greater than 10.
13	Probability	• Determine probability of rolling dice, using terms more, less and equally likely. • Complete a probability chart.
	Number Sentences	• Write number sentences from addition & subtraction word problems.
	Groups by 10's	• Group by tens when counting over 19. • Balance a scale by moving weights from one side to the other.
	Fourteen: Addition Facts & Count to 49	• Practice the addition facts of 14. • Count to 49.
14	Fact Families & Volume	• Use various tools to measure volume.

Module	Lesson Title	Objectives
14	Count to 59	• Count up to 59. • Use family relationships to group people into sets.
	Tally Charts	• Gather information from tally charts.
	Subtraction Facts of 13 & Count to 69	• Learn the subtraction facts of 13. • Count to 69.
	Venn Diagrams	• Sort geometric figures using Venn Diagrams.
15	Logical Order	• Recognize the days of the week. • Arrange a series of events in a logical order.
	Dissecting Word Problems	• Obtain numerical information from word problems. • Follow directions from verbal directions.

Module	Lesson Title	Objectives
15	Number Lines & Repeating Patterns	• Use a number line to solve addition problems. • Create repeating patterns using pictures.
	Using Maps	• Use a number line to solve subtraction problems.
16	Coin Designs	• Study different coins and coin designs. • Create a coin design.
	Eleven, Twelve, Thirteen	• Recognize eleven, twelve, thirteen.
	The Nearest Centimeter	• Measure a line segment to the nearest centimeter.
	Addition Facts to 18	• Learn the addition facts of 15, 16, 17, and 18.

Module	Lesson Title	Objectives
17	Word Problems	• Solve word problems using addition.
	Tens & Ones	• Recognize & write numbers represented by tens and ones.
	Reading a Scale	• Read scales measuring capacity, length, and weight.
	Subtraction Facts of 14	• Learn the subtraction facts of 14. • Identify even and odd numbers.
18	Skip-Counting	• Recognize a number series counting by 1, 2, 3, 5 or 10.
	Putting Numbers in Order	• Put 3 numbers in order from least to greatest.

Module	Lesson Title	Objectives
18	Making Number Sentences	• Write a number sentence from a number line.
	Subtraction Facts of 15	• Learn the subtraction facts of 15. • Recognize words fourteen, fifteen, twenty, thirty, forty.

Course Description:

During the second semester students will begin counting by twos, fives, and tens. They will learn both vertical addition and subtraction. Students are introduced to multiplication and division and the signs used in those operations. They will also study even and odd numbers.

Students continue their exploration of geometric shapes through drawing and apply what they learn about shapes by sorting various figures in Venn diagrams. They will also use a balance beam to understand the concept of weight – lighter versus heavier.

As in semester A, students will have multiple opportunities to practice new skills and knowledge through using integrated online practice problems.

Major Concepts:

- Counting by twos, fives, and tens
- Ordinal numbers
- Identifying 2-dimensional shapes
- Introduction to multiplication
- Introduction to division
- Signs used in operations
- Drawing shapes

Module	Lesson Title	Objectives
19	Introducing Two Digits	• Add a two-digit number to a one-digit number.
	Comparing Two-Digit Numbers	• Compare 2 two-digit numbers (less than 21).
	Two-Digit Addition	• Add 2 two-digit numbers with regrouping.
	Adding 4 Numbers	• Add 4 one-digit numbers.
	Word Problems	• Solve word problems using subtraction.

Module	Lesson Title	Objectives
20	Word Problems II	• Solve word problems using addition and subtraction.
	Missing Numbers	• Fill in missing numbers when counting by 10's.
	Missing Addends - One-Digit	• Fill in missing one-digit addends in a number sentence.
	Missing Addends - Two-Digit	• Fill in missing two-digit addends in a number sentence.
	Order	• Determine the order of events.

Module	Lesson Title	Objectives
21	Subtraction	• Learn the subtraction facts of 16 and 17.
	Parts of a Fraction	• Learn the parts of a fraction.
	Denominators	• Fill in the denominator of a fraction.
	Numbers through Nineteen	• Recognize numbers through nineteen.
	Two Digit Subtraction I	• Subtract a one-digit number from a two-digit number.

Module	Lesson Title	Objectives
22	Two Digit Subtraction II	• Subtract 2 two-digit numbers.
	Missing Numbers	• Fill in missing numbers when counting by 5's.
	Recognizing Numbers by 10's	• Recognize the words ten through ninety by 10's
	Adding 4 One-Digit Numbers	• Add 4 one-digit numbers with a sum greater than 19.
	Picture Graphs	• Interpret information given in picture graphs.

Module	Lesson Title	Objectives
23	Subtraction	• Learn the subtraction facts of 18 and 19.
	Missing Subtrahends	• Fill in missing subtrahends in a number sentence.
	Number Words to 100	• Recognize any number word less than 100.
	Numerators	• Fill in the numerator of a fraction.
	Giving Directions	• Give directions to get from one point to another on a map.

Module	Lesson Title	Objectives
24	Gathering Information	• Gather information to put into graphs.
	Greater Than, Less Than, Equal To	• Recognize symbols <, >, and =.
	Adding Horizontally	• Add two digit numbers horizontally.
	Subtraction Horizontally	• Subtract two digit numbers horizontally.

Module	Lesson Title	Objectives
25	Probability	• Determine probabilities based on data.
	Symmetry	• Draw lines of symmetry on letters.
	Creating Figures	• Create animal figures using pattern blocks.
	Recognizing Number Series	• Recognize a number series by 2's, 5's, and 10's.
	Calculate the Number	• Calculate a number 1 more or 1 less than a given number.

Module	Lesson Title	Objectives
26	Finding Shapes	• Find basic shapes in complex figures.
	Telling Time	• Write times shown on a clock.
	Identifying Coins	• Identify coins by their size and characteristics.
	Calculate the Number	• Calculate a number 10 more or less than a given number.
	Counting Past 100	• Count past 100.

Module	Lesson Title	Objectives
27	Word Problems to 20 - Addition	• Add within 20 to solve addition problems.
	Word Problems to 20 - Subtraction	• Subtract within 20 to solve subtraction problems.
	Ordinal Numbers	• Recognize and write ordinal numbers.
	Tally Charts	• Interpret and compare data using a tally chart.
	Counting and Addition	• Relate counting to addition, counting by 2's.

Module	Lesson Title	Objectives
28	Subtracting Multiples of Ten	• Subtract multiples of 10 from 10-90 using models.
	Shapes within a Group	• Identify shapes within a group of figures.
	Sides and Corners	• Identify the number of sides and corners of shapes.
	Shapes with Straws	• Create closed shapes using straws.
	Adding within 100	• Add within 100 horizontally.

Module	Lesson Title	Objectives
29	Compare Weights	• Compare weights.
	Graphing	• Compare and analyze graphs.
	Sorting Letters	• Sort capital letters according to curved and straight lines.
	Estimating Time	• Estimate the time events happen and how long activities will take.
	Mental Subtraction	• Mentally subtracting 10 from a two-digit number.

Module	Lesson Title	Objectives
30	Sequence	• Arrange a sequence of events in pictorial form.
	Telling Time by 10	• Tell time to the hour, half hour, and ten minutes.
	Splitting Shapes	• Partition shapes into two and four equal parts.
	Flips, Slides, and Turns	• Recognize flips, slides, and turns.

Module	Lesson Title	Objectives
31	Missing Numbers	• Fill in a missing number from a number sentence.
	Adding Three Numbers	• Add 3 one-digit numbers horizontally.
	Choosing a Chart	• Determine the best type of chart to display information.
	Estimating Time	• Estimate how much time events take.
	Picture Graphs	• Create a picture graph.

Module	Lesson Title	Objectives
32	Missing Numbers	• Fill in the missing numbers when counting by 2's.
	Follow Directions	• Follow directions to get to a location.
	Sort Clocks	• Sort clocks according to what time they show.
	Giving Change	• Calculate number of coins to give change.
	More or Less Time	• Identify least or most time for activities.

Module	Lesson Title	Objectives
33	Add on a Number Line	• Add one-digit and two-digit numbers on a number line.
	Classifying Images	• Classify images by their characteristics.
	Numerators	• Identify the numerator of a fraction.
	Denominators	• Identify the denominator of a fraction.
	Adding 3 One-Digit Numbers	• Add 3 one-digit numbers with a sum greater than 19.

Module	Lesson Title	Objectives
34	Recognizing Shapes	• Recognize and name solid shapes.
	Drawing Shapes	• Draw geometric shapes from a written description.
	Logic Puzzles	• Solve logic puzzles.
	Matching Numbers	• Match numbers that are 1 apart and those that are 10 apart.
	Tile Designs	• Create tile designs using pattern blocks.

Module	Lesson Title	Objectives
35	Tell Time - 5 Minutes	• Tell time by 5 minutes.
	Symmetry	• Identify lines of symmetry in shapes.
	Creating Shapes	• Create similar shapes by using pattern blocks.
	Splitting Shapes	• Partition shapes into halves and fourths.
	Patterns	• Complete a pattern of shapes.

Module	Lesson Title	Objectives
36	Review Telling Time	• Tell time to the half hour, 10 minutes, and 5 minutes.
	Review Shapes	• Identify and name shapes.
	Review Addition and Subtraction	• Add and subtract one-digit and two-digit numbers.
	Review Money	• Count money.