

Course Description:

During the first semester, students will build flexibility with numbers as they master addition and subtraction facts as well as multiplication and division facts. Students will understand relationships between addition and subtraction, multiplication and addition and multiplication and division as they learn to borrow, carry, and regroup in order to find sums and differences of two whole numbers up to 10,000. Students will also comprehend the place value of base ten numbers up to 1,000,000 in order to find patterns and make estimations. Lastly, they will implement a 4-step approach to solving problems and express numbers differently including translating them into Roman Numerals or expressing them as ordinal numbers.

Materials Needed:

50 Counters (pennies, buttons, beans)

Pennies (41)

Dimes (4)

Module	Activity Type	Title	Objectives	Assessments
1	Lesson	Math Facts 0-50	<ul style="list-style-type: none"> Define math words- sum, difference, equality. Write facts for the number 50. Solve word problems with numbers 0-50. 	<ul style="list-style-type: none"> Math Facts 0-50 Notes Assignment Math Facts 0-50 Quiz Lesson 1 Online Practice Score
	IXL Online Practice	Fact Families	<ul style="list-style-type: none"> Identify fact families in an addition or subtraction sentence. 	
2	Lesson	Hundreds Chart: Add and Subtract	<ul style="list-style-type: none"> Complete mental addition and subtraction math facts. List numbers to 100 by 2s, 3s, 5s, 10s. Use 100s chart to identify greater and less than 1 and 10. Use 100s chart to add and subtract. 	<ul style="list-style-type: none"> Hundreds Chart: Add and Subtract Notes Assignment Hundreds Chart: Add and Subtract Quiz Lesson 2 Online Practice Score
	IXL Online Practice	Hundreds Chart	<ul style="list-style-type: none"> Use 100s chart to identify greater and less than 1 and 10. Use 100s chart to add and subtract. 	

Module	Activity Type	Title	Objectives	Assessments
3	Lesson	Expanded Notation	<ul style="list-style-type: none"> Complete mental addition and subtraction math facts. List numbers to 1000 by 100 and by 50. Use 100s chart to add and subtract. Write numbers to 999 in expanded notation and word form. 	<ul style="list-style-type: none"> Expanded Notation Notes Assignment Expanded Notation Quiz Lesson 3 Online Practice Score
	IXL Online Practice	Expanded Notation	<ul style="list-style-type: none"> Convert between expanded form and standard form of numbers. 	
4	Lesson	Place Value	<ul style="list-style-type: none"> Complete mental addition and subtraction math facts. Explain the purpose of place value. Identify a given place value. 	<ul style="list-style-type: none"> Place Value Notes Assignment Place Value 0-50 Quiz Lesson 4 Online Practice Score
	IXL Online Practice	Place Value	<ul style="list-style-type: none"> Identify the name of a place value. Identify the digit with a particular place value. 	
5	Lesson	Regroup to Add and Subtract	<ul style="list-style-type: none"> Complete mental addition and subtraction math facts. Regroup to add. Regroup to subtract. 	<ul style="list-style-type: none"> Regroup to Add and Subtract Notes Assignment Regroup to Add and Subtract 0-50 Quiz Lesson 5 Online Practice Score
	IXL Online Practice	Regroup with Addition	<ul style="list-style-type: none"> Regroup to add. 	
	IXL Online Practice	Regroup with Subtraction	<ul style="list-style-type: none"> Regroup to subtract. 	
6	Lesson	Roman and Ordinal Numbers	<ul style="list-style-type: none"> Complete mental addition and subtraction math facts. Regroup to add and subtract. Borrow (regroup) across zero digit. Translate numbers into Roman Numerals 1-20. 	<ul style="list-style-type: none"> Roman and Ordinal Numbers Notes Assignment Roman and Ordinal Numbers Quiz Lesson 6 Online Practice Score

Module	Activity Type	Title	Objectives	Assessments
	IXL Online Practice	Roman and Ordinal Numbers	<ul style="list-style-type: none"> Identify location with ordinal numbers. Translate numbers into Roman Numerals 1-20. Identify location with ordinal numbers. 	
7	Lesson	Place Value to Billions	<ul style="list-style-type: none"> Complete mental addition and subtraction math facts. Identify place value to the billions. Round whole numbers to the given place value. 	<ul style="list-style-type: none"> Place Value to Billions Notes Assignment Place Value to Billions Quiz Lesson 7 Online Practice Score
	IXL Online Practice	Place Value and Rounding	<ul style="list-style-type: none"> Identify the name of a place value. Identify the digit with a particular place value. Round a number to a given place value. 	
8	Lesson	Estimate to Add	<ul style="list-style-type: none"> Explain why estimation is necessary. Estimate to answer addition problems. Discuss numbers using the language odd, even, dozen, half dozen, pair. 	<ul style="list-style-type: none"> Estimate to Add Notes Assignment Estimate to Add Quiz Lesson 8 Online Practice Score
	IXL Online Practice	Estimate to Add	<ul style="list-style-type: none"> Estimate to answer addition problems. 	
9	Lesson	Problem Solving Method	<ul style="list-style-type: none"> Explain how diagrams can help you solve problems. Use a four-step method to solve a problem. Solve word problems. 	<ul style="list-style-type: none"> Problem Solving Method Notes Assignment Problem Solving Method Quiz Lesson 9 Online Practice Score
	IXL Online Practice	Word Problems	<ul style="list-style-type: none"> Solve multi-step word problems involving numbers up to three digits. 	

Module	Activity Type	Title	Objectives	Assessments
10	Lesson	Addition to Multiplication	<ul style="list-style-type: none"> Estimate to add and subtract. Define multiplication. Compare and contrast multiplication and addition. Identify multiplication words and symbols. Solve word problems. 	<ul style="list-style-type: none"> Addition to Multiplication Notes Assignment M Addition to Multiplication Quiz Lesson 10 Online Practice Score
	IXL Online Practice	Multiplication Facts 0, 1, and 2	<ul style="list-style-type: none"> Multiply numbers by 0, 1, and 2. State multiplication facts for 0, 1, and 2. 	
11	Lesson	Multiplying Times 3 and 4	<ul style="list-style-type: none"> Complete mental addition, subtraction, and multiplication facts. Make arrays to model multiplication facts (3s and 4s). Make 100s chart patterns to model multiplication facts (3s and 4s). Solve multiplication word problems. 	<ul style="list-style-type: none"> Multiplying Times 3 and 4 Notes Assignment Multiplying Times 3 and 4 Quiz Lesson 11 Online Practice Score
	IXL Online Practice	Multiplication Facts 3 and 4	<ul style="list-style-type: none"> Multiply numbers by 3 and 4. State multiplication facts for 3 and 4. 	
12	Lesson	Multiplying Times 5 and 6	<ul style="list-style-type: none"> Complete mental addition, subtraction, and multiplication facts. Make arrays to model multiplication facts (5s and 6s). Solve multiplication word problems. Make patterns on 100s chart to model multiplication facts (5s and 6s). 	<ul style="list-style-type: none"> Multiplying Times 5 and 6 Notes Assignment Multiplying Times 5 and 6 Quiz Lesson 12 Online Practice Score
	IXL Online Practice	Multiplication Facts 5 and 6	<ul style="list-style-type: none"> Multiply numbers by 5 and 6. State multiplication facts for 5 and 6. 	
13	Lesson	Multiplying Times 7 and 10	<ul style="list-style-type: none"> Complete mental addition, subtraction, and multiplication facts. 	<ul style="list-style-type: none"> Multiplying Times 7 and 10 Notes Assignment

Module	Activity Type	Title	Objectives	Assessments
			<ul style="list-style-type: none"> • Make arrays to model multiplication facts (7s and 10s). • Solve multiplication word problems. • Make patterns on the hundreds chart to model multiplication facts (7s). • Count to 1,000 and 10,000 by 10 on the hundred's chart. 	<ul style="list-style-type: none"> • Multiplying Times 7 and 10 Quiz • Lesson 13 Online Practice Score
	IXL Online Practice	Multiplication Facts 7 and 10	<ul style="list-style-type: none"> • Multiply numbers by 7 and 10. • State multiplication facts for 7 and 10. 	
14	Lesson	Multiplying Times 8 and 9	<ul style="list-style-type: none"> • Complete mental addition, subtraction, and multiplication facts. • Find patterns with facts of 8 and facts of 4. • Model multiplication facts (9s). 	<ul style="list-style-type: none"> • Multiplying Times 8 and 9 Notes Assignment • Multiplying Times 8 and 9 Quiz • Lesson 14 Online Practice Score
	IXL Online Practice	Multiplication Facts 8 and 9	<ul style="list-style-type: none"> • Multiply numbers by 8 and 9. • State multiplication facts for 8 and 9. 	
15	Lesson	Patterns to Add and Multiply	<ul style="list-style-type: none"> • Complete mental addition, subtraction, and multiplication facts. • Create addition chart. • Create multiplication chart. 	<ul style="list-style-type: none"> • Patterns to Add and Multiply Notes Assignment • Patterns to Add and Multiply Quiz • Lesson 15 Online Practice Score
	IXL Online Practice	Multiplication Tables and Patterns	<ul style="list-style-type: none"> • Use multiplication tables and patterns to add and multiply. 	
16	Lesson	Inverse: Multiplication and Division	<ul style="list-style-type: none"> • Complete mental addition, subtraction, and multiplication facts. • Compare and contrast multiplication and division. 	<ul style="list-style-type: none"> • Inverse: Multiplication and Division Notes Assignment • Inverse: Multiplication and Division Quiz • Lesson 16 Online Practice Score
	IXL Online Practice	Multiplication and Division	<ul style="list-style-type: none"> • Relate multiplication and division as inverse operations. 	

Module	Activity Type	Title	Objectives	Assessments
			<ul style="list-style-type: none"> Complete multiplication and division problems. 	
17	Lesson	Multiplication: 2 Digit by 1 Digit	<ul style="list-style-type: none"> Complete mental addition, subtraction, and multiplication facts. Multiply a two, three, or four digit number by one number. 	<ul style="list-style-type: none"> Multiplication: 2 Digit by 1 Digit Notes Assignment Multiplication: 2 Digit by 1 Digit Quiz Lesson 17 Online Practice Score
	IXL Online Practice	Multiply 1 Digit Number by a Larger Number	<ul style="list-style-type: none"> Multiply a one digit number by a larger number. 	
18	Lesson	One-Step Division with Remainder	<ul style="list-style-type: none"> Complete mental addition, subtraction, multiplication and division facts. Use one step to divide with a remainder. 	<ul style="list-style-type: none"> One-Step Division with Remainder Notes Assignment One-Step Division with Remainder Quiz Lesson 18 Online Practice Score
	IXL Online Practice	Add, Subtract, Multiply and Divide	<ul style="list-style-type: none"> State addition, subtraction, multiplication, and division facts. 	

Course Description:

During the second semester, students will explore concepts of measurement including linear measurement, weight, volume, temperature, and time. They will also recognize, compare, and convert fractions. Students will write amounts of money and make change using as few coins as possible. Lastly, students will examine lines, polygons, and solid figures as they are introduced to basic concepts of geometry.

Materials Needed:

- 12 sheets of hundreds blocks
- Penny, nickel, dime, quarter, dollar bill
- Spoon
- Ruler
- Tape measure
- Wire hangar
- 2 Paper cups
- String
- Tape
- 10 Paper clips
- Crayon (new)
- Liquid measuring cup
- Gallon jug
- Water bottle (liter)
- Eye dropper or medicine spoon
- Thermometers (assorted)
- Brad (brass)
- Cardboard or paper plate
- Glue stick
- Scissors

Module	Activity Type	Title	Objectives	Assessments
19	Lesson	Comparing Fractions	<ul style="list-style-type: none"> • Explain numerator and denominator. • Use pictures to identify and write halves, thirds, and fourths. • Compare fractions with like denominators (halves, thirds, and fourths). • Add 1, 2, 11, and 12 to any number quickly. 	<ul style="list-style-type: none"> • Comparing Fractions Notes Assignment • Comparing Fractions Quiz • Lesson 19 Online Practice Score
	IXL Online Practice	Identify halves, thirds, and fourths	<ul style="list-style-type: none"> • Identify fractions as part of a whole. 	

Module	Activity Type	Title	Objectives	Assessments
	IXL Online Practice	Understand fractions: area models	<ul style="list-style-type: none"> Recognize the model that matches the fraction and vice versa. 	
20	Lesson	Analyzing Fractions	<ul style="list-style-type: none"> Use pictures to identify fractions (fifths - twelfths). Explain equivalent fractions with the denominator 2-12. Explain fractions with the denominator 100. Compute facts with the four operations. 	<ul style="list-style-type: none"> Analyzing Fractions Notes Assignment Analyzing Fractions s Quiz Lesson 20 Online Practice Score
	IXL Online Practice	Match unit fractions to models	<ul style="list-style-type: none"> Recognize the model that matches the fraction and vice versa. 	
	IXL Online Practice	Match fractions to models	<ul style="list-style-type: none"> Recognize the model that matches the fraction and vice versa. 	
21	Lesson	Decimals and Fractions	<ul style="list-style-type: none"> Write mixed numbers. Read decimals to the hundredths. Convert fractions to decimals. Compute facts with the four operations. 	<ul style="list-style-type: none"> Decimals and Fractions Notes Assignment Decimals and Fractions Quiz Lesson 21 Online Practice Score
	IXL Online Practice	Match mixed numbers to models	<ul style="list-style-type: none"> Identify a model that matches a mixed number and vice versa. 	
	IXL Online Practice	Word names for mixed numbers	<ul style="list-style-type: none"> Write out the number that matches a model of a mixed number. 	
22	Lesson	Adding and Subtracting Money	<ul style="list-style-type: none"> Compare, add and subtract amounts of money. 	<ul style="list-style-type: none"> Adding and Subtracting Money Notes Assignment

Module	Activity Type	Title	Objectives	Assessments
	IXL Online Practice	Add and subtract money amounts	<ul style="list-style-type: none"> Add and subtract amounts of money. 	<ul style="list-style-type: none"> Adding and Subtracting Money Quiz Lesson 22 Online Practice Score
	IXL Online Practice	Add money amounts - word problems	<ul style="list-style-type: none"> Solve word problems involving adding money. 	
23	Lesson	Making Change	<ul style="list-style-type: none"> Compare, add and subtract amounts of money. 	<ul style="list-style-type: none"> Making Change Notes Assignment Making Change Quiz Lesson 24 Online Practice Score
	IXL Online Practice	Making change	<ul style="list-style-type: none"> Find the amount of change return for a purchase. 	
	IXL Online Practice	Purchases – do you have enough money – up to \$10	<ul style="list-style-type: none"> Find the amount of change return for a purchase. 	
24	Lesson	Word Problems with Parentheses	<ul style="list-style-type: none"> Interpret word problems with two steps. Solve equations with two or more operations. Indicate order of operations with parentheses. Add and subtract quarters, dimes, and nickels mentally. 	<ul style="list-style-type: none"> Word Problems with Parentheses Notes Assignment Word Problems with Parentheses Quiz Lesson 24 Online Practice Score
	IXL Online Practice	Understanding parentheses	<ul style="list-style-type: none"> Solve problems involving parentheses. 	
	IXL Online Practice	Missing operators	<ul style="list-style-type: none"> Determine the missing operator to make a problem true. 	
25	Lesson	Linear Measurement: Inches, Feet, and Yards	<ul style="list-style-type: none"> Compare yards, feet, and inches Measure items using non-standard units. Measure items in yards, feet, and inches. 	<ul style="list-style-type: none"> Linear Measurement: Inches, Feet, and Yards Notes Assignment Linear Measurement: Inches, Feet, and Yards Quiz Lesson 25 Online Practice Score

Module	Activity Type	Title	Objectives	Assessments
			<ul style="list-style-type: none"> Mentally compute with regrouping. Use basic fact knowledge to convert feet and yards to inches. 	
	IXL Online Practice	Which customary unit of length is appropriate?	<ul style="list-style-type: none"> Determine which customary unit of length is appropriate to a given situation. 	
	IXL Online Practice	Compare and Convert customary units of length	<ul style="list-style-type: none"> Compare and convert between the customary units of length. 	
26	Lesson	Linear Measurement: Centimeters and Meters	<ul style="list-style-type: none"> Compare centimeters and meters. Measure items in centimeters and meters. Mentally compute with regrouping. Convert between centimeters and meters. 	<ul style="list-style-type: none"> Linear Measurement: Centimeters and Meters Notes Assignment Linear Measurement: Centimeters and Meters Quiz Lesson 26 Online Practice Score
	IXL Online Practice	Which metric unit of length is appropriate?	<ul style="list-style-type: none"> Determine which metric unit of length is appropriate to a given situation. 	
	IXL Online Practice	Compare and convert metric units of length	<ul style="list-style-type: none"> Compare and convert between the metric units of length. 	
27	Lesson	Weight: Ounces and Pounds	<ul style="list-style-type: none"> Compare the weight of objects using a non-standard unit of measure. Identify abbreviations for pounds and ounces. Estimate and measure weight in pounds and ounces. Mentally compute with regrouping. 	<ul style="list-style-type: none"> Weight: Ounces and Pounds Notes Assignment Weight: Ounces and Pounds Quiz Lesson 27 Online Practice Score

Module	Activity Type	Title	Objectives	Assessments
	IXL Online Practice	Which customary unit of weight is appropriate?	<ul style="list-style-type: none"> Compare and convert between the customary units of weight. 	
	IXL Online Practice	Compare and convert customary units of weight	<ul style="list-style-type: none"> Compare and convert between the customary units of weight. 	
28	Lesson	Weight: Grams and Kilograms	<ul style="list-style-type: none"> Explain the difference between mass and weight. Convert grams and kilograms Estimate mass in grams and kilograms. Compute mentally with regrouping. 	<ul style="list-style-type: none"> Weight: Grams and Kilograms Notes Assignment Weight: Grams and Kilograms Quiz Lesson 28 Online Practice Score
	IXL Online Practice	Which metric unit of weight is appropriate?	<ul style="list-style-type: none"> Compare and convert between the metric units of weight. 	
	IXL Online Practice	Compare and convert metric units of weight	<ul style="list-style-type: none"> Compare and convert between the metric units of weight. 	
29	Lesson	Volume: Cups, Pints, Quarts, and Gallons	<ul style="list-style-type: none"> Choose the most appropriate unit to measure volume. Estimate and measure liquid in cups, pints, quarts, and gallons. Identify equivalent capacity in cups, pints, quarts, and gallons. Mentally compute with regrouping. 	<ul style="list-style-type: none"> Volume: Cups, Pints, Quarts, and Gallons Notes Assignment Volume: Cups, Pints, Quarts, and Gallons Quiz Lesson 29 Online Practice Score
	IXL Online Practice	Which customary unit of volume is appropriate?	<ul style="list-style-type: none"> Determine the best customary unit of volume for a given situation. 	

Module	Activity Type	Title	Objectives	Assessments
	IXL Online Practice	Compare and convert customary units of volume.	<ul style="list-style-type: none"> Compare and convert between the customary units of volume. 	
30	Lesson	Volume: Liters to Quarts	<ul style="list-style-type: none"> Compare liters to quarts. Measure fractional amounts. Solve capacity word problems Compute mentally with regrouping. 	<ul style="list-style-type: none"> Volume: Liters to Quarts Notes Assignment Volume: Liters to Quarts Quiz Lesson 30 Online Practice Score
	IXL Online Practice	Which metric unit of volume is appropriate?	<ul style="list-style-type: none"> Determine the best metric unit of volume for a given situation. 	
	IXL Online Practice	Compare and convert metric units of volume.	<ul style="list-style-type: none"> Compare and convert between the metric units of volume. 	
31	Lesson	Temperature: Fahrenheit and Celsius	<ul style="list-style-type: none"> Measure temperature in degrees Fahrenheit and Celsius. Record temperature with degree sign. Know the freezing point of water in degrees Fahrenheit and Celsius. Mentally compute with decimals. 	<ul style="list-style-type: none"> Temperature: Fahrenheit and Celsius Notes Assignment Temperature: Fahrenheit and Celsius Quiz Lesson 31 Online Practice Score
	IXL Online Practice	Reasonable temperature	<ul style="list-style-type: none"> Determine a reasonable temperature measure given a specific situation. 	
	IXL Online Practice	What decimal number is illustrated?	<ul style="list-style-type: none"> Determine the numeric decimal for a given model. 	
32	Lesson	Movement of Time on Clock	<ul style="list-style-type: none"> Record date and time in words and numbers. Convert days, hours, minutes, and seconds. Read the minute hand on a clock. 	<ul style="list-style-type: none"> Movement of Time on Clock Notes Assignment Movement of Time on Clock Quiz Lesson 32 Online Practice Score

Module	Activity Type	Title	Objectives	Assessments
			<ul style="list-style-type: none"> Add and subtract numbers 0-60 mentally. 	
	IXL Online Practice	Read clocks and write times	<ul style="list-style-type: none"> Tell and write time to the nearest minute. 	
	IXL Online Practice	Read a calendar	<ul style="list-style-type: none"> Read the date from a calendar. 	
33	Lesson	Time: Hour, Half Hour and Quarter Hour	<ul style="list-style-type: none"> Read time on the hour, half, and quarter hour. Express time in "minutes before" and "minutes after". Discuss elapsed time on the half and quarter hour. Add and subtract number 0-60 mentally. 	<ul style="list-style-type: none"> Time: Hour, Half Hour and Quarter Hour Notes Assignment Time: Hour, Half Hour and Quarter Hour Quiz Lesson 33 Online Practice Score
	IXL Online Practice	Elapsed time I	<ul style="list-style-type: none"> Solve problems related to elapsed time. 	
	IXL Online Practice	Elapsed time II	<ul style="list-style-type: none"> Solve problems related to elapsed time. 	
34	Lesson	Attributes of Two-Dimensional Shapes	<ul style="list-style-type: none"> Identify and describe points, lines, line segments, rays, and angles. Distinguish two dimensional and three dimensional shapes. Draw and describe the properties of polygons with two - six sides. Distinguish quadrilaterals. Mentally compute with regrouping. 	<ul style="list-style-type: none"> Attributes of Two-Dimensional Shapes Notes Assignment Attributes of Two-Dimensional Shapes Quiz Lesson 34 Online Practice Score
	IXL Online Practice	Which 2-dimensional shape is being described?	<ul style="list-style-type: none"> Identify the two-dimensional shape described. 	

Module	Activity Type	Title	Objectives	Assessments
	IXL Online Practice	Classify quadrilaterals	<ul style="list-style-type: none"> Classify quadrilaterals based on attributes. 	
35	Lesson	Quadrilaterals and Three-Dimensional Shapes	<ul style="list-style-type: none"> Identify quadrilaterals by name Define polyhedron, faces, sides, and vertices Describe congruent figures Identify quadrilaterals by name 	<ul style="list-style-type: none"> Quadrilaterals and Three-Dimensional Shapes Notes Assignment Quadrilaterals and Three-Dimensional Shapes Quiz Lesson 35 Online Practice Score
	IXL Online Practice	Identify 2-dimensional and 3-dimensional shapes	<ul style="list-style-type: none"> Identify two- and three-dimensional shapes. 	
	IXL Online Practice	Count and compare sides and angles	<ul style="list-style-type: none"> Count and compare the number of sides and angles in given shapes. 	
36	Lesson 36	Slides, Flips, and Turns	<ul style="list-style-type: none"> Analyze quadrilaterals. Identify and describe the results of a slide, flip, and turn. Describe symmetry. Tessellate a shape. 	<ul style="list-style-type: none"> Slides, Flips, and Turns Notes Assignment Slides, Flips, and Turns Quiz Lesson 36 Online Practice Score
	IXL Online Practice	Reflection, rotation, and translation	<ul style="list-style-type: none"> Identify slides (translation), flips (turns), and turns (rotation). 	
	IXL Online Practice	Symmetry	<ul style="list-style-type: none"> Identify pictures which reflect symmetry. 	