

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. 	