Camelot Learning
Number Sense
Correlation to The National Council of Teachers of Mathematics and Common Core Standards

Lesson Learning Quest	Concept/Skill	Common Core Standards	NCTM Standards
Lesson 1: Doubles Plus One Strategy **Lesson 2:** Doubles Plus One Strategy Review How can you use the doubles plus one strategy to learn addition and subtraction facts?	• Number recognition and basic counting • Use ordinal numbers to identify location and sequence • Addition facts practice • Add and subtract two numbers that appear consecutively on a number line. • Add and subtract two addends that are the same. • Explain the steps in the doubles plus one strategy	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. (Grade 1) • Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). • 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	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Pre-K – Grade 2) • Count with understanding and recognize "how many" in sets of objects • Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction • Develop fluency with basic number combinations for addition and subtraction • Use a variety of methods and tools to compute, including objects, (number lines), mental computation, paper and pencil **Communication** (Pre-K – Grade 5)

		+ 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). *Work with addition and subtraction equations.* (Grade 1) • 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. • 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 = _.*	• Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 3: Making Ten Strategy **Lesson 4:** Making Ten	• Subtraction facts practice • Use the making ten strategy to add two addends whose sum is between 11 and	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2,	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop a sense of whole

| Strategy Review

How can you use the making ten strategy to learn addition and subtraction facts?	18 • Use the Tens Frame to add and subtract numbers • Recognize numbers on a Tens Frame using patterns	know from memory all sums of two one-digit numbers. (Grade 1) • Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). • 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). *Work with addition and subtraction equations.* (Grade 1) • Understand the meaning of the equal sign, and determine if equations involving addition	numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers (Tens Frame) *Compute fluently and make reasonable estimates* (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction • Develop fluency with basic number combinations for addition and subtraction • Use a variety of methods and tools to compute, including objects, (number lines), mental computation, paper and pencil **Algebra** *Understand patterns, relations, and functions* (Pre-K – Grade 2) • Recognize, describe, and extend simple numeric patterns and translate from one representation to another **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics

		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. • 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 = _.*	to express mathematical ideas precisely
Lesson 5: Counting On or Counting Back Strategy **Lesson 6:** Counting On or Counting Back Strategy Review How can you use the counting on or counting back strategy to learn addition and subtraction facts?	• Addition facts practice • Add numbers using the counting on strategy when one of the addends is 1, 2, or 3 • Subtract numbers with subtrahends of 1, 2, or 3 by counting backwards • Explain the steps in the counting on and counting back strategies	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. (Grade 1) • Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). • Add and subtract within 20, demonstrating fluency for addition and subtraction within	**Number and Operations** *Compute fluently and make reasonable estimates* (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction • Develop fluency with basic number combinations for addition and subtraction • Use a variety of methods and tools to compute, including objects, (number line) mental computation, paper and pencil **Communication** (Pre-K – Grade 5)

		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 $6 + 6 + 1 = 12 + 1 = 13$). *Work with addition and subtraction equations.* (Grade 1) • 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? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$. • Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For*	• Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely

		example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = _ − 3, 6 + 6 = _.	
Lesson 7: Fact Family Strategy **Lesson 8:** Fact Family Strategy Review How can you use the fact family strategy to learn addition and subtraction facts?	• Addition facts practice • Describe the relationships between addition and subtraction • Use the number family strategy to solve addition and subtraction facts • Write a set of fact family number sentences that are related	**Operations and Algebraic Thinking** *Understand and apply properties of operations and the relationship between addition and subtraction.* (Grade 1) • Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8. Add and subtract within 20.* *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. (Grade 1) • Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). • Add and subtract within 20, demonstrating fluency for addition and subtraction within	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Pre-K – Grade 2) • Connect number words and numerals to the quantities they represent, using various physical models and representations *Understand meanings of operations and how they relate to one another* (Pre-K – Grade 2) • Understand various meanings of addition and subtraction of whole numbers and the relationship between the two operations (fact family) *Compute fluently and make reasonable estimates* (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction • Develop fluency with basic number combinations for addition and

		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 $6 + 6 + 1 = 12 + 1 = 13$). *Work with addition and subtraction equations.* (Grade 1) • 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? $6 = 6$, $7 = 8 – 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$. • Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For*	subtraction • Use a variety of methods and tools to compute, including objects, (number lines), mental computation, paper and pencil

		example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = _ − 3, 6 + 6 = _.	
Lesson 9: Using Ten to Add or Subtract Nine **Lesson 10:** Using Ten to Add or Subtract Nine How can you use ten to add or subtract nine from a number?	• Addition facts practice • Mentally add 10 and subtract 1 from a number • Mentally subtract 10 and add 1 to a number • Explain the strategy for adding ten and subtracting 1 when adding nine to a number • Explain the strategy of subtracting ten and adding I when subtracting nine from a number	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. (Grade 1) • Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). • 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	**Number and Operations** *Understand meanings of operations and how they relate to one another* (Pre-K – Grade 2) • Understand the effect of adding and subtracting whole numbers *Compute fluently and make reasonable estimates* (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction • Develop fluency with basic number combinations for addition and subtraction • Use a variety of methods and tools to compute, including objects, mental computation, paper and pencil **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely

		creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). *Work with addition and subtraction equations.* (Grade 1) • 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. • 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 = _.*	
Lesson 11: Zero Strategy **Lesson 12:**	• Subtraction facts practice • Use the Identity Property of Addition	**Operations and Algebraic Thinking** *Understand and apply properties of operations and the relationship between addition and subtraction.*	**Algebra** *Represent and analyze mathematical situations and structures using algebraic symbols*

| Zero Strategy Review

How can the zero strategy be useful in learning addition and subtraction facts? | • Add facts that have an addend of zero
• Subtract facts that have a subtrahend of zero
• Tournament Time explanation | (Grade 1)
• Apply properties of operations as strategies to add and subtract. *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.)*
Add and subtract within 20.
(Grade 2)
• Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
(Grade 1)
• Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
• 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 | (Pre-K – Grade 2)
• Illustrate general principles and properties of operations, using specific numbers
Number and Operations
Compute fluently and make reasonable estimates
(Pre-K – Grade 2)
• Develop and use strategies for whole-number computations, with a focus on addition and subtraction
• Develop fluency with basic number combinations for addition and subtraction
• Use a variety of methods and tools to compute, including objects, (number lines), mental computation, paper and pencil
Communication (Pre-K – Grade 5)
• Communicate mathematical thinking coherently and clearly
• Use the language of mathematics to express mathematical ideas precisely |

		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). *Work with addition and subtraction equations.* (Grade 1) - 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. - 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 = _*	

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		− 3, 6 + 6 = _.	
Lesson 13: Understanding Place Value **Lesson 14:** Understanding Place Value Review How can you use your understanding of place value to improve your number sense?	• Addition facts practice • Recognize numbers written in expanded form, standard form, and with words • Compare and read numbers to the thousands place	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Number and Operations in Base Ten** *Understand place value.* (Grade 2) • Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases. • Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. • Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Pre-K – Grade 2) • Use multiple models to develop initial understanding of place value and the base ten number system; represent and compare whole numbers (3 – 5) • Develop a sense of whole numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers • Connect number words and numerals to the quantities they represent, using various physical models and representations *Compute fluently and make reasonable estimates* (Pre-K – Grade 2) • Develop fluency with basic number combinations for addition and subtraction

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Lesson 15: Mental Math Addition **Lesson 16:** Mental Math Addition Review How can you use a hundred chart to help you mentally add two-digit numbers?	• Addition facts practice • Add two-digit numbers using mental math • Explain the strategies used to add two-digit numbers mentally	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Numbers and Operations in Base Ten** *Use place value understanding and properties of operations to add and subtract.* (Grade 2) • Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. (Grade 1) • 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	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop a sense of whole numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers *Compute fluently and make reasonable estimates* (Grades 3 – 5) • Develop fluency with basic number combinations for addition and subtraction • Develop fluency in adding and subtracting whole numbers (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction • Use a variety of methods and tools to compute, including objects, mental computation, paper and pencil **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics

		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.	to express mathematical ideas precisely
Lesson 17: Mental Math Subtraction **Lesson 18:** Mental Math Subtraction Review How can you use the hundred chart to subtract numbers?	• Subtraction facts practice • Compute mentally to subtract two 2-digit numbers • Explain the steps and strategies used to subtract two 2-digit numbers mentally	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Numbers and Operations in Base Ten** *Use place value understanding and properties of operations to add and subtract.* (Grade 2) • Fluently add and subtract	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop a sense of whole numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers *Compute fluently and make reasonable estimates* (Grades 3 – 5) • Develop fluency with basic number combinations for addition and

		within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. (Grade 1) • 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.	subtraction (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction • Use a variety of methods and tools to compute, including objects, mental computation, paper and pencil **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely

		• 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.	
Lesson 19: Estimating Points on a Number Line **Lesson 20:** Estimating Points on a Number Line Review How can you use benchmarks to determine the relative location of a number on a number line?	• Subtraction facts practice • Use a benchmark to identify the relative location of numbers on a number line • Compare the magnitude of different numbers	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Numbers and Operations in Base Ten** *Understand place value.* (Grade 2) • Count within 1000; skip-count by 5s, 10s, and 100s. • Read and write numbers to 1000 using base-ten numerals, number names, and	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Grades 3 – 5) • Understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers • Use models and benchmarks to judge the size of whole numbers (Pre-K – Grade 2) • Develop understanding of the relative position and magnitude of whole numbers *Compute fluently and make reasonable estimates*

		expanded form. **Measurement and Data** *Relate addition and subtraction to length.* (Grade 2) • Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.	(Grades 3 – 5) • Develop fluency in adding and subtracting whole numbers • Use multiples to solve problems (skip counting)
Lesson 21: Estimating Sums and Differences **Lesson 22:** Estimating Sums and Differences Review How can we use the number line and rounding to estimate sums and differences?	• Addition facts practice • Round 3-digit numbers to the nearest 100 • Estimate the sum of two 3-digit numbers • Determine which operation to use when solving problems	**Operations and Algebraic Thinking** *Solve problems involving the four operations, and identify and explain patterns in arithmetic.* (Grade 3) • Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. *Add and subtract within 20.* (Grade 2)	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Grades 3 – 5) • Understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers • Use models and benchmarks to judge the size of whole numbers (Pre-K – Grade 2) • Develop understanding of the relative position and magnitude of whole numbers *Compute fluently and make reasonable estimates*

		• Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Numbers and Operations in Base Ten** *Use place value understanding and properties of operations to perform multi-digit arithmetic.* (Grade 3) • Use place value understanding to round whole numbers to the nearest 10 or 100. • Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	(Grades 3 – 5) • Develop fluency with basic number combinations for addition and subtraction • Develop fluency in adding whole numbers (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction • Use a variety of methods and tools to compute, including objects, mental computation, estimation, and paper and pencil (rounding) **Problem Solving** (Pre-K – Grade 5) • Apply and adapt a variety of appropriate strategies to solve problems
Lesson 23: Using Estimation to Add Money **Lesson 24:** Using Estimation to Add Money Review	• Addition facts practice • Round amount of money to the nearest dollar and ten dollars • Estimate a sum when given two	**Operations and Algebraic Thinking** *Solve problems involving the four operations, and identify and explain patterns in arithmetic.* (Grade 3) • Solve two-step word problems using the four operations. Represent these problems	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Grades 3 – 5) • Understand the place-value structure of the base-ten number system and be able to represent

How can you use estimation to add money?	• Determine which operation to use when solving problems	using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
		Add and subtract within 20.
		(Grade 2)
		  • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
		Measurement and Data
		Work with time and money.
		(Grade 2)
		  • Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.
		Number and Operations in Base Ten
		Understand the place value system. (Grade 5)
		  • Use place value understanding to round decimals to any place.
		Perform operations with multi-digit whole numbers and with decimals to
			and compare whole numbers
			  • Use models and benchmarks to judge the size of whole numbers
			(Pre-K – Grade 2)
			  • Develop understanding of the relative position and magnitude of whole numbers
			Compute fluently and make reasonable estimates
			(Grades 3 – 5)
			  • Develop fluency in adding whole numbers
			  • Develop fluency with basic number combinations for addition and subtraction
			  • Develop and use strategies to estimate results of whole-number computations and to judge the reasonableness of such results
			(Pre-K – Grade 2)
			  • Develop and use strategies for whole-number computations, with a focus on addition and subtraction
			  • Use a variety of methods and tools to compute, including objects, mental computation, estimation, and paper and pencil (rounding money amounts)
			Problem Solving (Pre-K – Grade 5)
			  • Apply and adapt a variety of

addends related to money			

		hundredths. (Grade 5) • Add, subtract, multiply, and divide decimals to hundredths, 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.	appropriate strategies to solve problems
Lesson 25: Describing Number Patterns **Lesson 26:** Describing Number Patterns Review How can you use skip counting and models to identify a number pattern?	• Subtraction facts practice • Recognize, identify, and describe a numeric pattern • Create and extend numeric patterns • Identify the rule for numeric patterns	**Operations and Algebraic Thinking** *Generate and analyze patterns.* (Grade 4) • Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Number and Operations in Base Ten**	**Number and Operations** *Compute fluently and make reasonable estimates* (Grades 3 – 5) • Develop fluency in adding and subtracting whole numbers • Use multiples to solve problems (skip counting) **Algebra** *Understand patterns, relations, and functions* (Grades 3 – 5) • Describe, extend, and make generalizations about geometric and numeric patterns (Pre-K – Grade 2) • Recognize, describe, and extend

		Understand place value. (Grade 2) • Count within 1000; skip-count by 5s, 10s, and 100s.	patterns such as sequences of shapes or simple numeric patterns and translate from one representation to another **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 27: Calendars **Lesson 28:** Calendars Review How can you use calendars to determine dates in the future or past?	• Addition facts practice • Recognize patterns on a calendar • Identify dates in the past and future on a calendar • Interpret the passage of time on a calendar	**Operations and Algebraic Thinking** *Generate and analyze patterns.* (Grade 4) • Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.	**Number and Operations** *Compute fluently and make reasonable estimates* (Grades 3 – 5) • Develop fluency in adding whole numbers **Algebra** *Understand patterns, relations, and functions* (Pre-K – Grade 2) • Recognize, describe, and extend patterns such as sequences or simple numeric patterns and translate from one representation to another **Measurement** *Understand measurable attributes of objects and the units, systems, and processes of measurement* (Grades 3 – 5)

			• Carry out simple unit conversions within a system of measurement (time) *Apply appropriate techniques, tools, and formulas to determine measurements* (Grades 3 – 5) • Select and apply appropriate standard units and tools to measure time
Lesson 29: Telling Time **Lesson 30:** Telling Time Review How can you use models to help you tell time?	• Subtraction facts practice • Tell time to the nearest minute using an analog clock	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Measurement and Data** *Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.* (Grade 3) • Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem	**Number and Operations** *Compute fluently and make reasonable estimates* (Grades 3 – 5) • Develop fluency in subtracting whole numbers **Measurement** *Apply appropriate techniques, tools, and formulas to determine measurements* (Grades 3 – 5) • Select and apply appropriate standard units and tools to measure time *Understand measurable attributes of objects and the units, systems, and processes of measurement* (Grades 3 – 5) • Carry out simple unit conversions within a system of measurement (time)

		on a number line diagram. **Number and Operations in Base Ten** *Understand place value.* (Grade 2) • Count within 1000; skip-count by 5s, 10s, and 100s.	
Lesson 31: Elapsed Time **Lesson 32:** Elapsed Time Review How can you use clock models to help you solve problems related to time?	• Addition facts practice • Determine the time elapsed when given a staring and ending time • Read and interpret a time schedule • Solve problems involving elapsed time and reading time schedules • Determine which operation to use when solving problems	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Measurement and Data** *Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.* (Grade 3) • Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.	**Number and Operations** *Compute fluently and make reasonable estimates* (Grades 3 – 5) • Develop fluency in adding whole numbers (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction • Use a variety of methods and tools to compute, including objects, (clocks) mental computation, paper and pencil **Measurement** *Understand measurable attributes of objects and the units, systems, and processes of measurement* (Grades 3 – 5) • Carry out simple unit conversions within a system of measurement (time) *Apply appropriate techniques, tools, and*

			formulas to determine measurements (Grades 3 – 5) • Select and apply appropriate standard units and tools to measure time **Problem Solving** (Pre-K – Grade 5) • Apply and adapt a variety of appropriate strategies to solve problems
Lesson 33: Fractional Parts of a Region **Lesson 34:** Fractional Parts of a Region Review How can you use paper folding to help you understand fractional parts of a region?	• Subtraction facts practice • Name the fractional part of a region • Name the fractional part of a region to solve problems • Use problem solving strategies to solve problems	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Numbers and Operations— Fractions** *Develop understanding of fractions as numbers.* (Grade 3) • Understand a fraction 1/*b* as the quantity formed by 1 part when *a* whole is partitioned into *b* equal parts; understand a fraction *a*/*b* as the quantity formed by a parts of size 1/*b*.	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Grades 3 – 5) • Develop understanding of fractions as parts of unit wholes, as parts of a collection • Use models, benchmarks, and equivalent forms to judge the size of fractions • Recognize and generate equivalent forms of commonly used fractions (Pre-K – Grade 2) • Understand and represent commonly used fractions *Compute fluently and make reasonable estimates* (Grades 3 – 5) • Develop fluency in subtracting

			whole numbers **Problem Solving** (Pre-K – Grade 5) Solve problems that arise in mathematics and in other contexts
Lesson 35: Fractional Parts of a Set **Lesson 36:** Fractional Parts of a Set Review How can you use models to help you understand the fractional parts of a set?	- Subtraction facts practice - Name and describe the fractional part of a set - Apply an understanding of fractions to solve problems	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) - Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Numbers and Operations—Fractions** *Develop understanding of fractions as numbers.* (Grade 3) - Understand a fraction 1/*b* as the quantity formed by 1 part when *a* whole is partitioned into *b* equal parts; understand a fraction *a*/*b* as the quantity formed by a parts of size 1/*b*.	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Grades 3 – 5) - Develop understanding of fractions as parts of unit wholes, as parts of a collection - Use models, benchmarks, and equivalent forms to judge the size of fractions - Recognize and generate equivalent forms of commonly used fractions (Pre-K – Grade 2) - Understand and represent commonly used fractions *Compute fluently and make reasonable estimates* (Grades 3 – 5) - Develop fluency in subtracting whole numbers
Lesson 37: Bar Graphs **Lesson 38:**	- Addition facts practice - Interpret information on a horizontal and	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) Fluently add and subtract	**Number and Operations** *Compute fluently and make reasonable estimates* (Grades 3 – 5)

Bar Graphs Review How can you use information from a graph to solve problems?	vertical bar graph • Use information from a bar graph to solve problems involving comparison, logic, and arithmetic • Name the elements of a bar graph	within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Measurement and Data** *Represent and interpret data.* (Grade 2) • Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	• Develop fluency in adding whole numbers (3 – 5) (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction **Data Analysis and Probability** *Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them* (Grades 3 – 5) • Represent data using bar graphs *Select and use appropriate statistical methods to analyze data* (Grades 3 – 5) • Describe the shape and important features of a set of data and compare related data sets
Lesson 39: Using Bar Graphs to Find Fractional Parts of a Set **Lesson 40:** Using Bar Graphs to Find Fractional Parts of a Set Review How can you use a	• Subtraction facts practice • Name the fractional part of a set • Construct a bar graph • Use information from a bar graph to find the fractional parts of a set	**Operations and Algebraic Thinking** *Add and subtract within 20.* (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **Measurement and Data** *Represent and interpret data.* (Grade 2)	**Number and Operations** *Understand numbers, ways of representing numbers, relationships among numbers, and number systems* (Grades 3 – 5) • Develop understanding of fractions as parts of unit wholes, as parts of a collection • Use models, benchmarks, and equivalent forms to judge the size of fractions

bar graph to solve problems using fractional parts of a set?		• Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. **Numbers and Operations—Fractions** *Develop understanding of fractions as numbers.* (Grade 3) • Understand a fraction 1/*b* as the quantity formed by 1 part when *a* whole is partitioned into *b* equal parts; understand a fraction *a*/*b* as the quantity formed by a parts of size 1/*b*.	• Recognize and generate equivalent forms of commonly used fractions (Pre-K – Grade 2) • Understand and represent commonly used fractions *Compute fluently and make reasonable estimates* (Grades 3 – 5) • Develop fluency in subtracting whole numbers (Pre-K – Grade 2) • Develop and use strategies for whole-number computations, with a focus on addition and subtraction **Data Analysis and Probability** *Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them* (Grades 3 – 5) • Represent data using bar graphs (construct) *Select and use appropriate statistical methods to analyze data* (Grades 3 – 5) • Describe the shape and important features of a set of data and compare related data sets **Communication** (Pre-K – Grade 5)

			• Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely