Lesson Learning Quest	Concept/Skill	Common Core Standards	NCTM Standards
Lesson 1: Numbers 0 - 4 **Lesson 2:** Numbers 0 - 4 Review How can you use counting and one- to-one correspondence to recognize number symbols?	• Recognize numbers from 0 – 4 • Use one-to-one correspondence for numbers 0 – 4 • Count objects up to 4 • Draw objects up to 4	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). *Count to tell the number of objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. • Understand the relationship between numbers and quantities;	**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 • Connect number words and numerals to the quantities they represent, using various physical models and representations • Develop a sense of whole numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely

		connect counting to cardinality. Understand that each successive number name refers to a quantity that is one larger. • Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.	
Lesson 3: Word Names 0 - 4 **Lesson 4:** Word Names 0 - 4 Review How can you use number words to represent numbers?	• Use word names for 0 – 4 • Use word names for objects 0 – 4 • Draw objects that correspond to the correct word name (0 – 4)	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). *Count to tell the number of objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. • Understand the relationship between numbers and quantities;	**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 • Connect number words and numerals to the quantities they represent, using various physical models and representations • Develop a sense of whole numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and

		connect counting to cardinality. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that each successive number name refers to a quantity that is one larger.	clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 5: Find the Missing Numbers 0 - 4 **Lesson 6:** Find the Missing Numbers 0 - 4 Review How can you use before, after and in between to find numbers?	• Use number line to find missing numbers from 0 – 4 • Find numbers that come before, after, and between numbers from 0 – 4	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Count to 100 by ones and by tens. • Count forward beginning from a given number within the known sequence (instead of having to begin at 1). • Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	**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 • Connect number words and numerals to the quantities they represent, using various physical models and representations • Develop a sense of whole numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers **Algebra**

			Understand patterns, relations, and functions (Pre-K – Grade 2) • Sort, classify, and order objects by size, number, and other properties **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 7: Numbers 0 - 10 **Lesson 8:** Numbers 0 - 10 Review How can you use counting and one-to-one correspondence to recognize number symbols?	• Recognize numbers from 5 - 10 • Use one-to-one correspondence for numbers 0 - 10 • Count objects up to 10 • Draw objects up to 10	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Count to 100 by ones and by tens. • Count forward beginning from a given number within the known sequence (instead of having to begin at 1). • Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). *Count to tell the number of objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name	**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 • Connect number words and numerals to the quantities they represent, using various physical models and representations **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely

		with one and only one object. • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that each successive number name refers to a quantity that is one larger. • Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.	
Lesson 9: Word Names 5-10 **Lesson 10:** Word Names 5-10 Review How can you use number words to represent	• Use word names for numbers 5-10 • Use word names for objects 0 – 10 • Draw objects that correspond to the correct word name (0 – 10)	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). *Count to tell the number of*	**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

numbers?		*objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.	magnitude of whole numbers and of ordinal and cardinal numbers • Connect number words and numerals to the quantities they represent, using various physical models and representations • Develop a sense of whole numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 11: Find the Missing Numbers 0 - 10 **Lesson12:** Find the Missing Numbers 0 - 10 Review How can you use before, after, and between to find numbers?	• Use number line to find missing numbers from 0 – 10 • Find numbers that come before, after, and between numbers from 0 – 10	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Count to 100 by ones and by tens. • Count forward beginning from a given number within the known sequence (instead of having to begin at 1). • Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	**Number and Operations** *Understand numbers, ways of representing numbers,, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers • Connect number words and numerals to the quantities they represent, using various physical models and representations • Develop a sense of whole

		Count to tell the number of objects. (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.	numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers *Compute fluently and make reasonable estimates* (Pre-K – Grade 2) • Use a variety of methods and tools to compute, including objects, mental computation, paper and pencil **Algebra** *Understand patterns, relations, and functions* (Pre-K – Grade 2) • Sort, classify, and order objects by size, number, and other properties **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 13: Bigger and Smaller Numbers **Lesson14:** Bigger and Smaller Numbers Review How can you use a number line to recognize bigger and smaller numbers?	• Recognize numbers from 11 – 15 using objects and numbers • Use a number line to find missing numbers from 0 – 15 • Find numbers that come before, after, and between numbers from 0 – 15 • Compare and order numbers	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Count to 100 by ones and by tens. • Count forward beginning from a given number within the known sequence (instead of having to begin at 1). • Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). *Count to tell the number of*	**Number and Operations** *Understand numbers, ways of representing numbers,, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers • Connect number words and numerals to the quantities they represent, using various physical models and representations • Develop a sense of whole numbers and represent and

		objects. (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. • Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. *Compare numbers.* (Kindergarten) • Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.	use them in flexible ways, including relating, composing, and decomposing numbers **Algebra** *Understand patterns, relations, and functions* (Pre-K – Grade 2) • Sort, classify, and order objects by size, number, and other properties **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 15: Recognizing Numbers 0 - 20 **Lesson16:** Recognizing Numbers 0 - 20 Review How can you use	• Recognize numbers from 0 - 20 using objects and numbers • Use a twenty chart to find missing numbers from 0 – 20 • Find numbers that come before,	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Count to 100 by ones and by tens. • Count forward beginning from a given number within the known sequence (instead of	**Number and Operations** *Understand numbers, ways of representing numbers,, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal

a twenty chart to recognize bigger numbers?	after, and between numbers from 0 – 20	having to begin at 1). • Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). *Count to tell the number of objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that each successive number name refers to a quantity that is one larger.	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) • Use a variety of methods and tools to compute, including objects, mental computation, paper and pencil **Algebra** *Understand patterns, relations, and functions* (Pre-K – Grade 2) • Sort, classify, and order objects by size, number, and other properties **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely

		Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. *Compare numbers.* (Kindergarten) Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.	
Lesson 17: Comparing Numbers 0 - 20 **Lesson18:** Comparing Numbers 0 - 20 Review How can you use greater and lesser to improve number sense?	- Tell whether a number is bigger or smaller (using objects) to 20 - Put numbers in order using objects from smallest to biggest up to 20 - Put numbers in order using objects from biggest to smallest up to 20	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) - Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). *Count to tell the number of objects.* (Kindergarten) - Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one	**Number and Operations** *Understand numbers, ways of representing numbers,, relationships among numbers, and number systems* (Pre-K – Grade 2) - Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers - Connect number words and numerals to the quantities they represent, using various physical models and representations **Algebra** *Understand patterns, relations, and functions* (Pre-K – Grade 2) - Sort, classify, and order objects by size, number, and other properties **Communication** (Pre-K – Grade 5)

		object. *Compare numbers.* (Kindergarten) • Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.	• Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 19: Make Ten using Objects **Lesson 20:** Make Ten using Objects Review How can you use the make ten strategy to add objects?	• Use pictures and objects to make 10 • Count up from a number to make the number 10	**Counting and Cardinality** *Count to tell the number of objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. **Operations and Algebraic Thinking** *Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.* (Kindergarten) • For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.	**Number and Operations** *Understand numbers, ways of representing numbers,, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers • 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 • Understand the effects of adding and subtracting whole numbers *Compute fluently and make reasonable estimates.* (Pre-K – Grade 2) • Use a variety of methods and tools to compute, including objects, mental computation,

			paper and pencil • 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 **Algebra** *Use mathematical models to represent and understand quantitative relationships* (Pre-K – Grade 2) • Model situations that involve the addition and subtraction of whole numbers, using objects, pictures, and symbols. **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 21: Using Pictures to Add **Lesson 22:** Using Pictures to Add Review How can you use pictures to add 0-10?	• Use Concrete objects to solve addition problems • Model addition as combining sets and adding to sets • Use the plus symbol (+) to show addition	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Count to 100 by ones and by tens. *Know number names and the count sequence.* (Kindergarten) • Count to 100 by ones and by tens. *Count to tell the number of objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand	**Number and Operations** *Understand numbers, ways of representing numbers,, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers • 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*

		that each successive number name refers to a quantity that is one larger. **Operations and Algebraic Thinking** *Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.* (Kindergarten) • Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. • Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	(Pre-K – Grade 2) • Understand various meanings of addition and subtraction of whole numbers and the relationship between the two operations • Understand the effects 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, estimation, paper and pencil, and calculators **Algebra** *Use mathematical models to represent and understand quantitative relationships* (Pre-K – Grade 2) • Model situations that involve the addition and subtraction of whole numbers, using objects, pictures, and symbols *Represent and analyze mathematical situations and structures using algebraic symbols* (Pre-K – Grade 2) • Use concrete, pictorial, and verbal representations to develop an understanding of addition and subtraction symbols **Communication** (Pre-K – Grade

			5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 23: Identify Patterns **Lesson 24:** Identify Patterns Review How can you recognize AB and AAB patterns?	• Use shapes and pictures to represent patterns AB and AAB • Use linking cubes to represent AB and AAB patterns • Express the type of pattern using AB and AAB • Fill in the end of a missing pattern AB and AAB	**Counting and Cardinality** *Count to tell the number of objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that each successive number name refers to a quantity that is one larger.	**Algebra** *Understand patterns, relations, and functions* (Pre-K – Grade 2) • Sort, classify, and order objects by size, number, and other properties • Recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one representation to another. • Analyze how both repeating and growing patterns are generated. **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 25: Identify Patterns **Lesson 26:** Identify Patterns Review How can you recognize ABC and ABB patterns?	• Use shapes and pictures to represent patterns ABC and ABB • Use linking cubes to represent ABC and ABB patterns • Express the type of pattern using ABC and ABB • Fill in the end of a missing pattern	**Counting and Cardinality** *Compare numbers.* (Kindergarten) • Compare two numbers between 1 and 10 presented as written numerals.	**Algebra** *Understand patterns, relations, and functions* (Pre-K – Grade 2) • Sort, classify, and order objects by size, number, and other properties • Recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from

	ABC and ABB		one representation to another. • Analyze how both repeating and growing patterns are generated. **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 27: Tally Marks **Lesson 28:** Tally Marks Review How can you use tally marks to represent the number of objects?	• Count tally marks up to 5 • Recognize tally marks and be able to write the number **(**up to 5) • Write tally marks to represent the number of objects (up to 5)	**Counting and Cardinality** *Count to tell the number of objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. • Count to answer "how many?" questions about	**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 • Connect number words and numerals to the quantities they represent, using various physical models and representations **Data Analysis and Probability** *Formulate questions that can be addressed with data and collect, organize and display data to answer them* (Pre-K – Grade 2) • Represent data using concrete objects, pictures, and graphs **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely

		as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.	
Lesson 29: Bar Graphs **Lesson 30:** Bar Graphs Review How can you make a bar graph?	• Use a simple grid to represent a bar graph and color in the blocks • Use blocks to represent objects and line them up to represent a bar graph • Use tally marks to color in a grid to represent a bar graph	**Measurement and Data** *Classify objects and count the number of objects in each category.* (Kindergarten) • Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. *Represent and interpret data.* (Grade 1) • Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. (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[1] using information presented in a bar graph. **Operations and Algebraic Thinking** *Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.*	**Number and Operations** *Understand numbers, ways of representing numbers,, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers **Data Analysis and Probability** *Formulate questions that can be addressed with data and collect, organize and display data to answer them* (Pre-K – Grade 2) • Pose questions and gather data about themselves and their surroundings • Represent data using concrete objects, pictures, and graphs. *Select and use appropriate statistical methods to analyze data* (Pre-K – Grade 2) • Describe parts of the data and the set of data as a whole to determine what the data show. **Algebra** *Understand patterns, relations, and functions* (Pre-K – Grade 2) • Sort and classify objects according to their attributes

		(Kindergarten) • Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	and organize data about the objects **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 31: Use Length to Sort Objects **Lesson 32:** Use Length to Sort Objects Review How do I use the length of an object to sort it?	• Choose which object is longer • Choose which object is shorter • Build objects that are longer than a set object • Build objects that are shorter than a set object	**Counting and Cardinality** *Compare numbers.* (Kindergarten) • Compare two numbers between 1 and 10 presented as written numerals. **Measurement and Data** *Describe and compare measurable attributes.* (Kindergarten) • Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. • Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*	**Measurement** *Understand measureable attributes of objects and the units, systems, and processes of measurement* (Pre-K – Grade 2) • Recognize the attributes of length • Compare and order objects according to these attributes • Understand how to measure using nonstandard and standard units *Apply appropriate techniques, tools, and formulas to determine measurements* (Pre-K – Grade 2) • Use tools to measure **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 33: Compare Length **Lesson 34:** Compare Length Review	• Compare two objects using shorter and longer • Sort up to 3 objects	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Count to 100 by ones and by tens.	**Measurement** *Understand measureable attributes of objects and the units, systems, and processes of measurement* (Pre-K – Grade 2)

How do I use the length of objects to order and sort it?	longest/shortest and shortest/longest • Number pictures of objects in order from longest/shortest and shortest/longest	*Count to tell the number of objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that each successive number name refers to a quantity that is one larger. **Measurement and Data** *Describe and compare measurable attributes.* (Kindergarten) • Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. • Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*	• Recognize the attributes of length • Compare and order objects according to these attributes • Understand how to measure using nonstandard and standard units *Apply appropriate techniques, tools, and formulas to determine measurements* (Pre-K – Grade 2) • Use tools to measure **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 35: Twenty Chart **Lesson 36:** Twenty Chart Review How do I use a twenty chart to understand and	• Use a twenty chart to show number patterns • Complete missing sections of the twenty chart • Find your place on the twenty chart by going up and down	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Count to 100 by ones and by tens. • Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	**Number and Operations** *Understand numbers, ways of representing numbers,, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers

| find number patterns? | | • Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
Count to tell the number of objects.
(Kindergarten)
   • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. | • 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)
   • Use a variety of methods and tools to compute, including objects, mental computation, paper and pencil
Algebra
Understand patterns, relations, and functions
(Pre-K – Grade 2)
   • Recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one representation to another
Use mathematical models to represent and understand quantitative relationships
(Pre-K- Grade 2)
   • Model situations that involve the addition and subtraction of whole numbers, using objects, pictures, and symbols
Communication (Pre-K – Grade 5)
   • Communicate mathematical thinking coherently and clearly
   • Use the language of mathematics to express mathematical ideas precisely |
| **Lesson 37:** Greater Than or Less Than

Lesson 38: Greater Than or | • Compare number of objects using words greater than or less than
• Compare number symbols using | **Counting and Cardinality**
Compare numbers.
(Kindergarten)
   • Identify whether the number of objects in one group is greater than, less | **Number and Operations**
Understand numbers, ways of representing numbers,, relationships among numbers, and number systems
(Pre-K – Grade 2) |

Less Than Review How do I compare numbers using greater than or less than?	greater than or less than	than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. • Compare two numbers between 1 and 10 presented as written numerals. **Number and Operations in Base Ten** *Understand place value.* (Grade 1) • Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	• Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers • Connect number words and numerals to the quantities they represent, using various physical models and representations **Algebra** *Represent and analyze mathematical situations and structures using algebraic symbols* (Pre-K – Grade 2) • Use concrete, pictorial, and verbal representations to develop an understanding of invented and conventional symbolic notations **Communication** (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 39: Take Away **Lesson 40:** Take Away Review How do I use pictures and counters to understand subtraction?	• Use counters to solve take away problems • Have a take away problem and have students represent it using counters and pictures • Recognize the subtraction symbol	**Counting and Cardinality** *Know number names and the count sequence.* (Kindergarten) • Count to 100 by ones and by tens. *Count to tell the number of objects.* (Kindergarten) • Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the	**Number and Operations** *Understand numbers, ways of representing numbers,, relationships among numbers, and number systems* (Pre-K – Grade 2) • Develop an understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers • Connect number words and numerals to the quantities they represent, using various physical models and representations

| | | standard order, pairing each object with one and only one number name and each number name with one and only one object.

Operations and Algebraic Thinking
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
(Kindergarten)
Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. | *Compute fluently and make reasonable estimates.*
(Pre-K – Grade 2)
Use a variety of methods and tools to compute, including objects, mental computation, paper and pencil
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
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
Understand the effects of adding and subtracting whole numbers
Algebra
Use mathematical models to represent and understand quantitative relationships
(Pre-K- Grade 2) Model situations that involve the addition and subtraction of whole numbers, using objects, pictures, and symbols
Represent and analyze mathematical situations and structures using algebraic symbols
(Pre-K – Grade 2)
Use concrete, pictorial, and verbal representations to develop an understanding of addition and subtraction |

			symbols
			Communication (Pre-K – Grade 5)
			• Communicate mathematical thinking coherently and clearly
			• Use the language of mathematics to express mathematical ideas precisely