

We Discover Math: Content

Below is the mathematical content in the *We Discover Math* program. It is based upon the *Principles and Standards for School Mathematics*, from the National Council of Teachers of Mathematics (NCTM). This content reflects NCTM's *Curriculum Focal Points*, released in 2006. It is important to remember the range of developmental levels found in a pre-K classroom. While exposure to this content is desired for all students, expectations should be formed based on individual needs and growth.

The *Curriculum Focal Points* highlight a need to cover specific content more deeply at a particular grade level. In pre-K, the primary content comes from the Number and Operations strand, the Geometry strand, and the Measurement strand. The Algebra and Data Analysis and Probability strands provide the opportunity for both context and application, deepening student understanding of the Focus Content. These key mathematical ideas must promote the ongoing development of problem solving, reasoning, communication, connections, and representation.

Focus Content

Number and Operations

- Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order
- Develops the meaning of “zero”
- Counts verbally up to 10 and beyond
- Starts verbal counting, by one, from any point, 2–9
- Counts verbally backward from five
- Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set
- Produces a collection of 1 to 10 objects
- Recognizes small sets of objects (up to five) without counting (subitizes)
- Draws pictures or uses symbols to represent how many in a set of objects
- Recognizes numbers 0–10
- Understands verbal ordinal numbers “first” through “fifth”
- Understands that the arrangement of objects within a set does not effect the quantity
- Compares sets of objects using the language of *more*, *less*, *equal*, *one more*, and *one less*
- Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives
- Understands part-part-whole relationships

Geometry

- Observes, recognizes, and names geometric shapes in the environment
- Describes the relative position of objects, using language such as *above* and *next to*
- Sorts, compares, and classifies geometric shapes by common attributes

Measurement

- Develops the concept of time as measured by months, weeks, and days
- Organizes the day into the time frames of *morning*, *afternoon*, and *night*

- Identifies measurable attributes and compares objects by those attributes
- Develops language of measurement such as *bigger, longer, shorter, lighter*
- Explores the measurement variables of length, volume, area, and weight

Supporting Content

Data Analysis and Probability

- Describes objects according to common qualitative attributes, such as color or type
- Makes simple, concrete graphs reflecting opinions (yes/no) and events
- Sorts and compares objects by mathematical attributes such as size, quantity, or shape

Algebra

- Understands the process of change as reflected in the passage of months and seasons
- Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, color, and number
- Sorts, classifies, and orders objects and events

Introduction to the Scope and Sequence

The following pages illustrate the range of content embedded in the *We Discover Math* program. Note that some activities have multiple layers of content, while others are more singular in focus. Both types of experiences are important. Introductory activities provide the foundation for the deeper explorations that follow.

The Focus and Supporting Content Goals form the organization of the Scope and Sequence. The bullets indicate the activities in which the content is covered. Sometimes content may be a major focus of one unit but not addressed in the following unit. This allows for individual students to “incubate” important content, developing readiness for when it is revisited.

The mathematical content incorporated into the on-going Classroom Calendar is not included in the Scope and Sequence but it offers much in the way of application and provides a meaningful context for numbers. The on-going structure allows for a range of students to participate at their own readiness level.

The Classroom Calendar offers multiple opportunities for:

- Counting
- Exploring number relationships
- Making predictions
- Looking at patterns
- Exploring data
- Comparing numbers
- Building the benchmark number 5
- Exploring part-part-whole relationships
- Solving simple addition and subtraction problems
- Understanding ordinal numbers

Scope and Sequence

Unit 1: Five Comes Alive!	Activity							
	1	2	3	4	5	6	7	8
Number and Operations								
Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order	●	●	●	●		●		●
Develops the meaning of “zero”	●	●	●	●		●		●
Counts verbally up to 10 and beyond	●							●
Starts verbal counting, by one, from any point								
Counts verbally backward from five								
Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set		●				●		
Produces a collection of 1 to 10 objects			●				●	
Recognizes small sets of objects (up to five) without counting (subitizing)		●	●			●		
Draws pictures or uses symbols to represent how many in a set of objects			●	●		●		
Recognizes numbers 0–10								
Understands verbal ordinal numbers “first” through “fifth”								
Understands that the arrangement of objects within a set does not effect the quantity								
Compares sets of objects using the language of <i>more</i> , <i>less</i> , <i>equal</i> , <i>one more</i> , and <i>one less</i>							●	
Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives								
Understands part-part-whole relationships		●	●					
Geometry								
Observes, recognizes, and names geometric shapes in the environment							●	
Describes the relative position of objects, using language such as <i>above</i> and <i>next to</i>								
Sorts, compares, and classifies geometric shapes by common attributes							●	

Unit 1: Five Comes Alive!	Activity							
	1	2	3	4	5	6	7	8
Measurement								
Develops the concept of time as measured by months, weeks, and days					●	●		
Organizes the day into the time frames of <i>morning</i> , <i>afternoon</i> , and <i>night</i>								
Identifies measurable attributes and compares objects by those attributes								
Develops language of measurement such as <i>bigger</i> , <i>longer</i> , <i>shorter</i> , <i>lighter</i>								●
Explores the measurement variables of length, volume, area, and weight								
Data Analysis and Probability								
Describes objects according to common qualitative attributes, such as color or shape								
Makes simple, concrete graphs reflecting opinions (yes/no) and events				●		●		
Sorts and compares objects by mathematical attributes such as size, quantity, or shape								
Algebra								
Understands the process of change as reflected in the passage of months and seasons					●	●		
Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, color, and number	●				●	●		
Sorts, classifies, and orders objects and events								

Scope and Sequence

Unit 2: Ready, Set, Go!	Activity							
	1	2	3	4	5	6	7	8
Number and Operations								
Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order		●	●		●	●	●	●
Develops the meaning of “zero”								
Counts verbally up to 10 and beyond					●		●	
Starts verbal counting, by one, from any point								
Counts verbally backward from five								
Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set		●			●	●	●	
Produces a collection of 1 to 10 objects			●					
Recognizes small sets of objects (up to five) without counting		●	●		●	●		
Draws pictures or uses symbols to represent how many in a set of objects			●			●		
Recognizes numbers 0–10								
Understands verbal ordinal numbers “first” through “fifth”						●		
Understands that the arrangement of objects within a set does not effect the quantity								
Compares sets of objects using the language of <i>more</i> , <i>less</i> , <i>equal</i> , <i>one more</i> , and <i>one less</i>							●	
Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives								
Understands part-part-whole relationships								
Geometry								
Observes, recognizes, and names geometric shapes in the environment								
Describes the relative position of objects, using language such as <i>above</i> and <i>next to</i>				●				
Sorts, compares, and classifies geometric shapes by common attributes								

Unit 2: Ready, Set, Go!	Activity							
	1	2	3	4	5	6	7	8
Measurement								
Develops the concept of time as measured by months, weeks, and days						●		
Organizes the day into the time frames of <i>morning</i> , <i>afternoon</i> , and <i>night</i>								
Identifies measurable attributes and compares objects by those attributes	●	●	●					
Develops language of measurement such as <i>bigger</i> , <i>longer</i> , <i>shorter</i> , <i>lighter</i>	●		●					
Explores the measurement variables of length, volume, area, and weight	●	●	●					
Data Analysis and Probability								
Describes objects according to common qualitative attributes, such as color or shape							●	●
Makes simple, concrete graphs reflecting opinions (yes/no) and events								
Sorts and compares objects by mathematical attributes such as size, quantity or shape	●							
Algebra								
Understands the process of change as reflected in the passage of months and seasons								
Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, and color		●		●				
Sorts, classifies, and orders objects and events						●		●

Scope and Sequence

Unit 3: Sevens and Elephants	Activity							
	1	2	3	4	5	6	7	8
Number and Operations								
Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order	●				●	●	●	●
Develops the meaning of “zero”							●	●
Counts verbally up to 10 and beyond					●	●	●	●
Starts verbal counting, by one, from any point								
Counts verbally backward from five								
Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set							●	
Produces a collection of 1 to 10 objects			●					
Recognizes small sets of objects (up to five) without counting (subitizing)								
Draws pictures or uses symbols to represent how many in a set of objects						●		
Recognizes numbers 0–10					●			●
Understands verbal ordinal numbers “first” through “fifth”	●							
Understands that the arrangement of objects within a set does not effect the quantity								
Compares sets of objects using the language of <i>more</i> , <i>less</i> , <i>equal</i> , <i>one more</i> , and <i>one less</i>						●		
Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives								
Understands part-part-whole relationships	●					●		
Geometry								
Observes, recognizes, and names geometric shapes in the environment		●						
Describes the relative position of objects, using language such as <i>above</i> and <i>next to</i>							●	●
Sorts, compares, and classifies geometric shapes by common attributes		●						

Unit 3: Sevens and Elephants	Activity							
	1	2	3	4	5	6	7	8
Measurement								
Develops the concept of time as measured by months, weeks, and days	●			●			●	
Organizes the day into the time frames of <i>morning, afternoon, and night</i>								
Identifies measurable attributes and compares objects by those attributes			●					
Develops language of measurement such as <i>bigger, longer, shorter, lighter</i>		●	●					
Explores the measurement variables of length, volume, area, and weight			●					
Data Analysis and Probability								
Describes objects according to common qualitative attributes, such as color or shape	●							
Makes simple, concrete graphs reflecting opinions (yes/no) and events								
Sorts and compares objects by mathematical attributes such as size, quantity, or shape								
Algebra								
Understands the process of change as reflected in the passage of months and seasons								
Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, color, and number				●			●	
Sorts, classifies, and orders objects and events	●							

Scope and Sequence

Unit 4: Just the Right Size: Birds, Bears and Numbers	Activity							
	1	2	3	4	5	6	7	8
Number and Operations								
Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order	●	●		●	●	●	●	●
Develops the meaning of “zero”		●				●		
Counts verbally up to 10 and beyond					●	●	●	
Starts verbal counting, by one, from any point								
Counts verbally backward from five								
Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set	●	●	●		●	●	●	
Produces a collection of 1 to 10 objects							●	
Recognizes small sets of objects (up to five) without counting		●	●			●		●
Draws pictures or uses symbols to represent how many in a set of objects	●					●		
Recognizes numbers 0–10								
Understands verbal ordinal numbers “first” through “fifth”						●		
Understands that the arrangement of objects within a set does not effect the quantity								
Compares sets of objects using the language of <i>more</i> , <i>less</i> , <i>equal</i> , <i>one more</i> , and <i>one less</i>				●	●		●	
Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives								
Understands part-part-whole relationships								
Geometry								
Observes, recognizes, and names geometric shapes in the environment								
Describes the relative position of objects, using language such as <i>above</i> and <i>next to</i>								
Sorts, compares, and classifies geometric shapes by common attributes								

Unit 4: Just the Right Size: Birds, Bears and Numbers	Activity							
	1	2	3	4	5	6	7	8
Measurement								
Develops the concept of time as measured by months, weeks, and days								
Organizes the day into the time frames of <i>morning, afternoon, and night</i>								
Identifies measurable attributes and compares objects by those attributes			●	●				
Develops language of measurement such as <i>bigger, longer, shorter, lighter</i>			●	●				
Explores the measurement variables of length, volume, area, and weight			●	●				
Data Analysis and Probability								
Describes objects according to common qualitative attributes, such as color or shape								
Makes simple, concrete graphs reflecting opinions (yes/no) and events								
Sorts and compares objects by mathematical attributes such as size, quantity, or shape								
Algebra								
Understands the process of change as reflected in the passage of months and seasons								
Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, and color	●	●	●					
Sorts, classifies, and orders objects and events						●		

Scope and Sequence

Unit 5: Shapes, Tens, and Back from Five	Activity							
	1	2	3	4	5	6	7	8
Number and Operations								
Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order			●	●	●	●		
Develops the meaning of “zero”						●	●	
Counts verbally up to 10 and beyond			●	●				
Starts verbal counting, by one, from any point								
Counts verbally backward from five					●	●	●	
Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set			●	●				
Produces a collection of 1 to 10 objects				●				
Recognizes small sets of objects (up to five) without counting			●	●				
Draws pictures or uses symbols to represent how many in a set of objects				●		●		
Recognizes numbers 0–10					●			
Understands verbal ordinal numbers “first” through “fifth”								
Understands that the arrangement of objects within a set does not effect the quantity				●		●		
Compares sets of objects using the language of <i>more</i> , <i>less</i> , <i>equal</i> , <i>one more</i> , and <i>one less</i>								
Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives								
Understands part-part-whole relationships								
Geometry								
Observes, recognizes, and names geometric shapes in the environment	●							●
Describes the relative position of objects, using language such as <i>above</i> and <i>next to</i>		●						
Sorts, compares, and classifies geometric shapes by common attributes	●							●

Unit 5: Shapes, Tens, and Back from Five	Activity							
	1	2	3	4	5	6	7	8
Measurement								
Develops the concept of time as measured by months, weeks, and days								
Organizes the day into the time frames of <i>morning, afternoon, and night</i>			●					
Identifies measurable attributes and compares objects by those attributes		●						
Develops language of measurement such as <i>bigger, longer, shorter, lighter</i>	●	●						●
Explores the measurement variables of length, volume, area, and weight								
Data Analysis and Probability								
Describes objects according to common qualitative attributes, such as color or shape		●						
Makes simple, concrete graphs reflecting opinions (yes/no) and events								
Sorts and compares objects by mathematical attributes such as size, quantity, or shape	●							
Algebra								
Understands the process of change as reflected in the passage of months and seasons								
Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, and color					●		●	
Sorts, classifies, and orders objects and events	●							

Scope and Sequence

Unit 6: Plus One and Then Some	Activity							
	1	2	3	4	5	6	7	8
Number and Operations								
Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order	●	●	●	●				●
Develops the meaning of “zero”	●							●
Counts verbally up to 10 and beyond	●	●	●	●				●
Starts verbal counting, by one, from any point			●					
Counts verbally backward from five								
Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set								
Produces a collection of 1 to 10 objects		●					●	
Recognizes small sets of objects (up to five) without counting	●							
Draws pictures or uses symbols to represent how many in a set of objects	●							
Recognizes numbers 0–10	●	●						●
Understands verbal ordinal numbers “first” through “fifth”								
Understands that the arrangement of objects within a set does not effect the quantity		●	●					
Compares sets of objects using the language of <i>more</i> , <i>less</i> , <i>equal</i> , <i>one more</i> , and <i>one less</i>	●	●	●					●
Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives								
Understands part-part-whole relationships								
Geometry								
Observes, recognizes, and names geometric shapes in the environment							●	
Describes the relative position of objects, using language such as <i>above</i> and <i>next to</i>							●	●
Sorts, compares, and classifies geometric shapes by common attributes								

Unit 6: Plus One and Then Some	Activity							
	1	2	3	4	5	6	7	8
Measurement								
Develops the concept of time as measured by months, weeks, and days	●							
Organizes the day into the time frames of <i>morning</i> , <i>afternoon</i> , and <i>night</i>					●	●		
Identifies measurable attributes and compares objects by those attributes								
Develops language of measurement such as <i>bigger</i> , <i>longer</i> , <i>shorter</i> , <i>lighter</i>				●				
Explores the measurement variables of length, volume, area, and weight				●				
Data Analysis and Probability								
Describes objects according to common qualitative attributes, such as color or shape								
Makes simple, concrete graphs reflecting opinions (yes/no) and events	●							
Sorts and compares objects by mathematical attributes such as size, quantity, or shape								
Algebra								
Understands the process of change as reflected in the passage of months and seasons	●							
Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, and color					●	●		
Sorts, classifies, and orders objects and events					●	●		

Scope and Sequence

Unit 7: Geometry, Algebra, and Numbers Galore	Activity							
	1	2	3	4	5	6	7	8
Number and Operations								
Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order	●			●	●	●		
Develops the meaning of “zero”				●	●	●		
Counts verbally up to 10 and beyond				●	●			●
Starts verbal counting, by one, from any point								
Counts verbally backward from five					●	●		
Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set	●		●	●	●	●		
Produces a collection of 1 to 10 objects				●	●			
Recognizes small sets of objects (up to five) without counting			●	●	●	●		
Draws pictures or uses symbols to represent how many in a set of objects	●							
Recognizes numbers 0–10							●	●
Understands verbal ordinal numbers “first” through “fifth”						●		
Understands that the arrangement of objects within a set does not effect the quantity								
Compares sets of objects using the language of <i>more</i> , <i>less</i> , <i>equal</i> , <i>one more</i> , and <i>one less</i>				●	●			
Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives								
Understands part-part-whole relationships					●			
Geometry								
Observes, recognizes, and names geometric shapes in the environment		●						
Describes the relative position of objects, using language such as <i>above</i> and <i>next to</i>		●					●	
Sorts, compares, and classifies geometric shapes by common attributes								

Unit 7: Geometry, Algebra, and Numbers Galore	Activity							
	1	2	3	4	5	6	7	8
Measurement								
Develops the concept of time as measured by months, weeks, and days							●	●
Organizes the day into the time frames of <i>morning</i> , <i>afternoon</i> , and <i>night</i>							●	
Identifies measurable attributes and compares objects by those attributes								
Develops language of measurement such as <i>bigger</i> , <i>longer</i> , <i>shorter</i> , <i>lighter</i>								
Explores the measurement variables of length, volume, area, and weight								
Data Analysis and Probability								
Describes objects according to common qualitative attributes, such as color or shape								
Makes simple, concrete graphs reflecting opinions (yes/no) and events								
Sorts and compares objects by mathematical attributes such as size, quantity, or shape								
Algebra								
Understands the process of change as reflected in the passage of months and seasons				●				
Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, and color	●							
Sorts, classifies, and orders objects and events				●	●	●		

Scope and Sequence

Unit 8: Patterns, Pairs and Numbers	Activity							
	1	2	3	4	5	6	7	8
Number and Operations								
Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order	●	●				●	●	●
Develops the meaning of “zero”	●							
Counts verbally up to 10 and beyond						●	●	
Starts verbal counting, by one, from any point		●						
Counts verbally backward from five								
Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set								
Produces a collection of 1 to 10 objects								
Recognizes small sets of objects (up to five) without counting				●				●
Draws pictures or uses symbols to represent how many in a set of objects	●			●			●	
Recognizes numbers 0–10	●							●
Understands verbal ordinal numbers “first” through “fifth”	●							
Understands that the arrangement of objects within a set does not effect the quantity								
Compares sets of objects using the language of <i>more</i> , <i>less</i> , <i>equal</i> , <i>one more</i> , and <i>one less</i>	●						●	
Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives				●				
Understands part-part-whole relationships								
Geometry								
Observes, recognizes, and names geometric shapes in the environment								
Describes the relative position of objects, using language such as <i>above</i> and <i>next to</i>					●			
Sorts, compares, and classifies geometric shapes by common attributes						●		

Unit 8: Patterns, Pairs and Numbers	Activity							
	1	2	3	4	5	6	7	8
Measurement								
Develops the concept of time as measured by months, weeks, and days								
Organizes the day into the time frames of <i>morning, afternoon, and night</i>								
Identifies measurable attributes and compares objects by those attributes		●						
Develops language of measurement such as <i>bigger, longer, shorter, lighter</i>		●						
Explores the measurement variables of length, volume, area, and weight		●						
Data Analysis and Probability								
Describes objects according to common qualitative attributes, such as color or shape			●					
Makes simple, concrete graphs reflecting opinions (yes/no) and events								
Sorts and compares objects by mathematical attributes such as size, quantity, or shape								
Algebra								
Understands the process of change as reflected in the passage of months and seasons								
Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, and color					●	●		
Sorts, classifies, and orders objects and events			●					

Scope and Sequence

Unit 9: Exploring Ten and a Line Bends	Activity							
	1	2	3	4	5	6	7	8
Number and Operations								
Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order	●	●		●	●	●	●	
Develops the meaning of “zero”								
Counts verbally up to 10 and beyond	●	●		●	●	●	●	
Starts verbal counting, by one, from any point								
Counts verbally backward from five	●							
Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set		●				●		
Produces a collection of 1 to 10 objects			●		●			
Recognizes small sets of objects (up to five) without counting			●					
Draws pictures or uses symbols to represent how many in a set of objects								
Recognizes numbers 0–10				●				
Understands verbal ordinal numbers “first” through “fifth”								
Understands that the arrangement of objects within a set does not effect the quantity						●		
Compares sets of objects using the language of <i>more</i> , <i>less</i> , <i>equal</i> , <i>one more</i> , and <i>one less</i>		●		●		●		
Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives							●	
Understands part-part-whole relationships			●					
Geometry								
Observes, recognizes, and names geometric shapes in the environment								●
Describes the relative position of objects, using language such as <i>above</i> and <i>next to</i>								
Sorts, compares, and classifies geometric shapes by common attributes								●

Unit 9: Exploring Ten and a Line Bends	Activity							
	1	2	3	4	5	6	7	8
Measurement								
Develops the concept of time as measured by months, weeks, and days								
Organizes the day into the time frames of <i>morning</i> , <i>afternoon</i> , and <i>night</i>								
Identifies measurable attributes and compares objects by those attributes								
Develops language of measurement such as <i>bigger</i> , <i>longer</i> , <i>shorter</i> , <i>lighter</i>								
Explores the measurement variables of length, volume, area, and weight						●		
Data Analysis and Probability								
Describes objects according to common qualitative attributes, such as color or shape	●							
Makes simple, concrete graphs reflecting opinions (yes/no) and events		●						
Sorts and compares objects by mathematical attributes such as size, quantity, or shape								
Algebra								
Understands the process of change as reflected in the passage of months and seasons			●					
Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, and color	●		●	●				
Sorts, classifies, and orders objects and events								

Scope and Sequence

Unit 10: Countdown	Activity							
	1	2	3	4	5	6	7	8
Number and Operations								
Counts small sets of objects, actions, and sounds using one-to-one correspondence with stable word order	●	●	●			●		
Develops the meaning of “zero”	●	●						●
Counts verbally up to 10 and beyond	●				●		●	
Starts verbal counting, by one, from any point								
Counts verbally backward from five	●	●		●				●
Understands the “cardinal principle,” i.e., that the last number named when counting a set of objects reflects the quantity in the entire set				●	●	●		
Produces a collection of 1 to 10 objects								
Recognizes small sets of objects (up to five) without counting								
Draws pictures or uses symbols to represent how many in a set of objects								
Recognizes numbers 0–10	●							
Understands verbal ordinal numbers “first” through “fifth”					●	●		
Understands that the arrangement of objects within a set does not effect the quantity								
Compares sets of objects using the language of <i>more</i> , <i>less</i> , <i>equal</i> , <i>one more</i> , and <i>one less</i>	●	●	●	●	●	●		
Solves simple addition, subtraction, and fair-share type problems with the use of manipulatives						●		
Understands part-part-whole relationships		●	●					
Geometry								
Observes, recognizes, and names geometric shapes in the environment								
Describes the relative position of objects, using language such as <i>above</i> and <i>next to</i>							●	
Sorts, compares, and classifies geometric shapes by common attributes								

Unit 10: Countdown	Activity							
	1	2	3	4	5	6	7	8
Measurement								
Develops the concept of time as measured by months, weeks, and days							●	
Organizes the day into the time frames of <i>morning, afternoon, and night</i>							●	
Identifies measurable attributes and compares objects by those attributes								
Develops language of measurement such as <i>bigger, longer, shorter, lighter</i>				●				
Explores the measurement variables of length, volume, area, and weight				●				
Data Analysis and Probability								
Describes objects according to common qualitative attributes, such as color or shape								
Makes simple, concrete graphs reflecting opinions (yes/no) and events								
Sorts and compares objects by mathematical attributes such as size, quantity, or shape		●						
Algebra								
Understands the process of change as reflected in the passage of months and seasons								
Recognizes, copies, extends, and creates patterns such as sequences of sounds, shapes, position, and color								
Sorts, classifies, and orders objects and events				●	●			

Cross-Curricular Connections in *We Discover Math*

See page 30 for descriptions of these standards.

Activity								
Unit 1	1	2	3	4	5	6	7	8
Physical development (gross / fine motor)	●	●	●	●	●	●	●	●
Fine Arts (dramatic play / art / music)	●		●				●	●
Social/ emotional development	●				●	●	●	●
Media/Technology (Literature, Calendar, print, photos, computer)	●			●	●			●
Unit 2	1	2	3	4	5	6	7	8
Physical development (gross / fine motor)		●	●	●	●	●	●	●
Fine Arts (dramatic play / art / music)	●	●	●	●	●	●	●	
Social/ emotional development		●					●	●
Media/Technology (Literature, Calendar, print, photos, computer)			●			●	●	
Unit 3	1	2	3	4	5	6	7	8
Physical development (gross / fine motor)	●	●	●	●		●	●	●
Fine Arts (dramatic play / art / music)	●	●	●	●	●	●	●	
Social/ emotional development		●	●	●				●
Media/Technology (Literature, Calendar, print, photos, computer)	●	●	●	●	●	●	●	
Unit 4	1	2	3	4	5	6	7	8
Physical development (gross / fine motor)	●	●	●	●	●	●	●	●
Fine Arts (dramatic play / art / music)	●	●	●			●	●	
Social/ emotional development	●	●		●	●		●	●
Media/Technology (Literature, Calendar, print, photos, computer)	●		●		●		●	
Unit 5	1	2	3	4	5	6	7	8
Physical development (gross / fine motor)	●	●		●	●	●	●	
Fine Arts (dramatic play / art / music)	●	●	●		●	●	●	●
Social/ emotional development	●	●	●	●				●
Media/Technology (Literature, Calendar, print, photos, computer)	●	●	●	●	●			●

Activity								
Unit 6	1	2	3	4	5	6	7	8
Physical development (gross / fine motor)	●	●	●			●	●	●
Fine Arts (dramatic play / art / music)	●		●	●	●	●	●	
Social/ emotional development	●		●	●		●	●	●
Media/Technology (Literature, Calendar, print, photos, computer)	●	●	●		●	●	●	
Unit 7	1	2	3	4	5	6	7	8
Physical development (gross / fine motor)		●	●	●	●	●	●	●
Fine Arts (dramatic play / art / music)	●			●			●	
Social/ emotional development		●				●		●
Media/Technology (Literature, Calendar, print, photos, computer)	●			●	●		●	
Unit 8	1	2	3	4	5	6	7	8
Physical development (gross / fine motor)	●	●	●	●	●	●	●	●
Fine Arts (dramatic play / art / music)	●	●		●	●		●	
Social/ emotional development		●	●	●	●	●		●
Media/Technology (Literature, Calendar, print, photos, computer)	●	●	●	●			●	
Unit 9	1	2	3	4	5	6	7	8
Physical development (gross / fine motor)		●	●		●	●		●
Fine Arts (dramatic play / art / music)	●		●	●	●			●
Social/ emotional development					●	●	●	
Media/Technology (Literature, Calendar, print, photos, computer)	●	●	●	●	●			●
Unit 10	1	2	3	4	5	6	7	8
Physical development (gross / fine motor)		●	●	●	●	●	●	●
Fine Arts (dramatic play / art / music)	●	●			●	●	●	
Social/ emotional development		●	●	●		●		●
Media/Technology (Literature, Calendar, print, photos, computer)	●	●	●	●	●	●	●	●