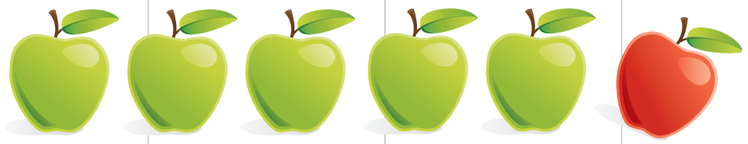
Mathematics	Infants	Toddlers	Twos	Preschool	Pre-K Exit Expectations	K Exit Expectations
STANDARDS	Indicators	Indicators	Indicators	Indicators	Indicators	Common Core State Standards
14. Matches, groups, and classifies objects	**14a.** Emerging **Patterns** **14b.** Emerging	**14a.** Begins to match one object with a similar object *Example:* Puts his shoe next to another child's shoe. *Supportive Practice:* Describe objects by characteristics such as size and shape (e.g., "It's a blue scarf" or "Here comes the round ball"). **Patterns** **14b.** Emerging	**14a.** Matches one object with a group of similar objects *Example:* Places all of the toy cars in a basket. *Supportive Practice:* Talk about leaves that have the same shape and different shapes. **Patterns** **14b.** Emerging	**14a.** Groups objects on the basis of a single characteristic, e.g. color, size, or shape *Example:* Groups all of the red beads together, then the blue, yellow, and the green beads in separate piles. *Supportive Practice:* Encourage children to talk about the characteristics of toys and materials, such as rectangular and round items. **Patterns** **14b.** Copies simple patterns *Example:* Strings beads in a yellow, pink; yellow, pink; etc. pattern after looking at another child's necklace. *Supportive Practice:* Provide patterning materials and call attention to patterns in the environment.	**Classification** **14a.** Groups objects according to a common characteristic, regroups them according to a different characteristic, and explains the grouping rules *Example*: Helps the teacher sort and organize materials in an interest area so that items that are used together are stored together. *Supportive Practice:* Engage children in sorting collections by using different rules that you make up together (e.g., "Put only red bears in this basket and blue bears in the other.") **Patterns** **14b.** Creates and extends simple repeating patterns *Example:* Identifies the pattern (e.g., car, truck; car, truck; etc.) that a classmate is making with materials in the block area. *Supportive Practice:* Make a simple repeating pattern with leaves that children find on a walk, stopping to ask "Which comes next: a maple leaf or an oak leaf?"	**Classify objects and count the number of objects in each category.** **K.MD.3.** Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
15. Demonstrates knowledge of number and counting	**15a.** Emerging	**15a.** Shows awareness of the concepts of *one, two,* and *more;* recites numbers in random order *Example:* After the teacher says, "Take two crackers" she takes two, looks at the teacher, and asks, "More?" *Supportive Practice:* Use number words during routine interactions, for example, "Would you like one more cracker so you will have two crackers?"	**15a.** Begins to rote count to 10 but may not be accurate consistently *Example:* Lines up plates and quickly counts, "One, two, three, four, six," while pointing at them randomly. *Supportive Practice:* Make counting interesting. For example, ask whether there are enough apples for everyone. With the children, count the apples, count the children, and compare the quantities.	**15a.** Counts to 10 by rote; accurately assigns number names to quantities up to 5 (one-to-one correspondence); recognizes a few numerals and connects each to a quantity *Example:* Tells five children that they may each have one doll, counts five dolls, and then gives one to each child. *Supportive Practice:* Encourage children to count as a way to get information to solve problems. For example, ask a child how many cups she should put on the table if there are five children and each child needs one cup.	**Knows number names and the count sequence** **15a.** Counts to 20 by ones *Example:* Asks to sing "A Lot of Monkeys Jumping on the Bed." When the teacher asks, "How many is a lot?" the child says, "Twenty," and starts to count. **15b.** Tells what number comes next in the counting sequence when given a number between 1 and 9 *Example:* Answers, "Four," when given the clue "the next number after three" during the game "I'm Thinking of a Number." **15c.** Recognizes and names the written numerals *1–10* *Example:* Uses paper and pencil in the dramatic play area to create a menu with a picture and price for each item. *Supportive Practices:* • Provide opportunities for children to count throughout the day. For example, ask how many steps are on the ladder to the slide. • Give children the opportunity to say the next number when counting things like plates. • Create a display that shows groups of 1–10 items. Label each quantity (group) with a corresponding numeral card. **Counts to tell the number of objects** **15d.** Counts 10–20 objects accurately, using one number name for each object *Example:* Counts the children who want to plant seeds and takes that many cups from a box. **15e.** Understands that the last number named tells the number of objects counted and that the number of objects is the same regardless of their arrangement or the order in which they were counted *Example:* Plays a "magic game" where she rearranges cups in the dramatic play area, covers them with a scarf, uncovers them, and recounts them. **15f.** Counts to answer "How many?" questions about 10–20 objects *Example:* Asks the teacher how many Canada geese are flying overhead but starts to count the birds before she answers **15g.** Correctly associates a numeral with a group of as many as 10 counted objects *Example:* Matches numeral cards with cards on which different quantities of animals are pictured. *Supportive Practices:* • Model counting whenever possible, reminding children that they should assign one number to each item that they are counting. For example, count the number of jackets hanging in cubbies, touching each one as they count. • Play games with children where they count and recount the same set of people who change position each time they are to be counted again (e.g., they sit, stand, and change places with each other). • Ask children "How many?" questions throughout the day. For example, at snack, ask them to count the napkins on the table, etc. • Play "I Spy," using numbers, e.g., "In the corner of the room, I spy three…"	**Know number names and the count sequence.** **K.CC.1.** Count to 100 by ones and by tens. **K.CC.2.** Count forward beginning from a given number within the known sequence (instead of having to begin at 1). **K.CC.3.** 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.** **K.CC.4.** 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 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 that each successive number name refers to a quantity that is one larger. **K.CC.5.** 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. **Work with numbers 11-19 to gain foundations for place value.** **K.NBT.1.** Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.



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continued **15.** Demonstrates knowledge of number and counting					**Compares numbers** **15h.** Uses matching and counting strategies and comparative language to identify whether the number of objects in one group (as many as 10 objects) is greater than, less than, or equal to the number of objects in another group (as many as 10 objects) *Example:* Serves two dolls the same number of play dough "raisins." *Supportive Practices:* • Encourage children to compare quantities of objects throughout the day. For example, ask which basket has more toys, which box has fewer crayons, etc. **Understands addition as putting together and adding to, and understands subtraction as taking apart and taking from** **15i.** Uses concrete objects to solve real-world addition (putting together) and subtraction (taking away) problems with 6–10 objects *Example:* Gives her friend two more puzzle pieces so they will have the same number in their stacks *Supportive Practices:* • Offer games with materials, like pebbles, during which children make groups that are the same, smaller, and larger. Talk about what happens when they add an item or take one away.	**Compare numbers.** **K.CC.6.** 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.[1] **K.CC.7.** Compare two numbers between 1 and 10 presented as written numerals. **Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.** **K.OA.1.** Represent addition and subtraction with objects, fingers, mental images, drawings[1], sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. **K.OA.2.** Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. **K.OA.3.** Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). **K.OA.4.** 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. **K.OA.5.** Fluently add and subtract within 5.
16. Demonstrates knowledge of volume, height, weight, and length	**16a.** Emerging	**16a.** Explores objects of different shapes and sizes *Example:* Pours water from a large pitcher into a small cup at the water table, watching the water overflow. *Supportive Practice:* Provide a wide range of opportunities for toddlers to explore different three-dimensional objects, like nesting boxes.	**16a.** Makes simple comparisons, noticing similarities and differences between objects *Example:* Puts three plastic cows in order from biggest to smallest, saying "Daddy, mommy, baby," as he does so. *Supportive Practice:* Encourage children to focus on physical attributes of objects. For example, point out how tall things are, how wide, how long, etc.	**16a.** Understands reasons for measuring and the purpose of measuring tools; uses standard and nonstandard tools and some measurement words; begins to order a few objects according to height and length *Example:* Gets a block and begins to count the number of times it fits end-to-end across a table. When she gets to the end she says, "It's eight blocks!" *Supportive Practice:* Provide children with tools for determining length and weight, such as rulers, measuring tapes, bathroom scales, etc.	**Describes and compares measurable attributes** **16a.** Describes everyday objects in terms of measurable attributes, such as length, height, weight, or volume (capacity), using appropriate basic vocabulary (e.g., *short, long, tall, heavy, light, big, small, wide, narrow)* *Example:* Describes shells in terms of *big/little, light/dark, long/short*, etc. **16b.** Knows and correctly uses a few ordinal numbers *Example:* Challenges a classmate to race to a tree, shouting, "I'll be first!" **16c.** Knows the usual sequence of basic daily events *Example:* Tells the substitute teacher that it isn't time to go to the library because they haven't had their snack yet. *Supportive Practices:* • Engage children in discussions about materials in and out of the classroom. Use measurement terms (e.g., heavy/light, long/short, etc.). • Use ordinal terms, such as *first, second*, and *third*, when appropriate. Explain the order that each term identifies. For example, explain, "You were the third person to sit down for circle." "One, two, three. First, second, third." • Talk about the daily schedule throughout the day, reviewing what has already happened and what will happen next. Use a picture and a word chart.	**Describe and compare measurable attributes.** **K.MD.1.** Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. **K.MD.2.** 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.*
17. Identifies and labels shapes	**17a.** Emerging	**17a.** Explores objects of different shapes *Example:* Attempts to put pieces into a shape sorter. *Supportive Practice:* Provide shape sorters and building toys.	**17a.** Matches one shape with the same shape *Example:* Cuts out play dough disks and says, "My cookies." *Supportive Practice:* Provide shape cutters for play dough.	**17a.** Names a few basic two-dimensional shapes *Example:* Rolls a ball along a shelf, singing "The Wheels on the Bus are a circle!" *Supportive Practice:* Play games with shapes. For example, while on the playground, ask children to find as many round objects, like balls, as they can.	**Identifies and describes shapes and the relative position of objects** **17a.** Correctly names basic two-dimensional shapes (squares, circles, triangles, rectangles), regardless of their orientations or size *Example:* Looks around the classroom and points out that there are a lot of circles and squares because of the tabletops. **17b.** Describes basic two- and three-dimensional shapes *Example:* Explains, "It has three sides and three points. It's a triangle." **17c.** Builds objects of basic shapes (ball/sphere, square box/cube, tube/cylinder) by using various materials such as craft sticks, blocks, pipe cleaners, clay, and so on *Example:* Makes balls with play dough and calls them marbles. *Supportive Practices:* • Name shapes as you play shape-matching games, such as matching a triangle with a triangle. • Have children name the shape you draw in the air with your finger, giving hints like "Round and round…" • Provide sufficient materials for children to create different shapes by placing three-dimensional models in the art area.	**Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, spheres).** **K.G.1.** Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above, below, beside, in front of, behind,* and *next to.* **K.G.2.** Correctly name shapes regardless of their orientations or overall size. **K.G.3.** Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). **Analyze, compare, create, and compose shapes.** **K.G.4.** Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length). **K.G.5.** Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. **K.G.6.** Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"*