South Carolina Early Learning Standards

Mathematical Thinking and Expression (MTE)

Foundations for Number Sense

1 Children demonstrate a beginning understanding of numbers and quantity during play and other activities. MTE-1

Infants 0 to 12 months

a Indicate they want “more” with signs, sounds, or looks. MTE-1A

b Show interest (look at or reach for) in obvious differences in quantity (look at a tower with 7 blocks longer than a tower with 3 blocks, reach for a basket with three balls rather than a basket with one ball). MTE-1B

Younger Toddlers 8 to 21 months

c Explore quantity (for example, filling and dumping containers). MTE-1C

d Use words or actions that show understanding of the concepts of “more,” “less,” and “all” (ask for more food, stop asking for more blocks when told they have “all” of the blocks). MTE-1D

e Recognize when presented with two obviously unequal sets of objects that one set has more or less than the other (Can point to which set of crayons has more). MTE-1E

Older Toddlers 18 to 36 months

f Use words or actions that show understanding of the concepts of “more,” “all,” and/or “none” (ask for more food, stop asking for more blocks when told they have “all” of the blocks, become upset when told there is no more Play-Doh®). MTE-1F

g Recognize when presented with two obviously unequal sets of objects that one set has more than the other and/or that one set has less than the other. (Can point to which set of crayons has more or less depending on what is asked). MTE-1G

h Attempt to chant or recite numbers, but not necessarily in the correct order (for example, counting objects on a page during a read aloud). MTE-1H

i Place items in one-to-one correspondence during play and daily routines (one spoon at each plate; one doll in each toy car). MTE-1I

j Make a small group (1-3) with the same number of items as another group of items (take 3 balls from a basket after the teacher shows the group that she has 3 balls and asks each person to take the same number of balls) MTE-1J

Younger Preschoolers 36 to 48 months

k Visually compare two groups of objects that are obviously equal or unequal in quantity and communicate that they are the same or different, and, if appropriate, which one has more and/ or which one has less. (If child is offered two plates of crackers can select the preferred amount and can explain that he wanted more or less). MTE-1K

l Rote count to 10 with increasing accuracy. MTE-1L

m Count up to 5 objects arranged in a line using one-to-one correspondence with increasing accuracy and answer the question, “How many are there?” MTE-1M

n Recognize numerals up to 5 during play and daily activities. MTE-1N

o Match numerals 1-5 to sets of objects, with guidance and support. MTE-1O

p Write numerals or numberlike forms up to 5 during play and daily activities. MTE-1P

Older Preschoolers 48 to 60+ months

q Compare the amount of items in small sets of objects (up to 5 objects) by matching or counting and use language such as “more than” and “less than” to describe the sets of objects. MTE-1Q

r Show an understanding of magnitude by recognizing larger sets when compared to smaller sets and describe how they are different. MTE-1R

s Rote count to 20 with increasing accuracy. MTE-1S

t Count up to 10 objects in a variety of ways (for example, left to right, right to left, in stacks, etc.). MTE-1T

u Count up to 10 objects arranged in a line using oneto-one correspondence with increasing accuracy, and answer the question “How many are there?” MTE-1U

v Recognize numerals up to 10 and attempt to write them or number-like forms during play and daily activities. MTE-1V

w Match numerals 1-10 to sets of objects, with guidance and support. MTE-1W

x Recognize that objects can be counted as part of different groups (forks can be counted alone, or as part of a set of utensils). MTE-1X

y Given a number 0-5, count out that many objects. MTE-1Y

z State the number of objects in a small collection (1-5) without counting (when a friend holds up two fingers, look at her hand and say, “Two fingers” without counting). MTE-1Z

aa Tell what number comes next or what number came before another number when counting 1-5. MTE-1AA

ab Show understanding of first, next, and last during play and daily activities (answer questions about who is first and last to slide down the slide; say, “The engine is first, and the caboose is last” when making a train). MTE-1AB

2 Children demonstrate a beginning understanding of numbers and operations during play and other activities. MTE-2

Infants Birth to 12 months

Emerging

Younger Toddlers 8 to 21 months

Emerging

Older Toddlers 18 to 36 months

a Use observation and emerging counting skills (1, 2, 3) during play and other daily activities. MTE-2A

Younger Preschoolers 36 to 48 months

b Use observation and counting (not always correctly) to find out how many things are needed during play and other daily activities (figure out how many spoons are needed for snack, find enough dolls so each person has one when playing in the dramatic play area). MTE-2B

c Show they understand that putting objects together in a set will make a bigger set, and removing objects from a set will make a smaller set. MTE-2C

Older Preschoolers 48 to 60+ months

d Use observation and counting with increasing accuracy to answer questions such as “How many do we need?” and “How many more do we need?” during play and other daily activities (count new children to see how many more plates are needed for snack; return extra drinks to cooler at picnic to arrive at the correct number). MTE-2D

e Show different ways a set of up to five objects can be decomposed (broken apart) or composed (put together) (e.g., 5 objects can be broken into 2 and 3 objects and 2 and 3 can be combined to make 5 objects). MTE-2E

Foundations for Algebraic Thinking

3 **Children demonstrate a beginning understanding of algebraic thinking by sorting, describing, extending, and creating simple patterns during play and other activities.** MTE-3

Infants Birth to 12 months

Emerging

Younger Toddlers 8 to 21 months

a Show awareness of different categories during play (put balls in a box and dolls in a bed; give one friend all the cars and another friend all of the trucks when playing in the block area). MTE-3A

b Can follow along and imitate patterns of sounds and movement (for example, repeating a chorus in a song or clapping a simple rhythm). MTE-3B

Older Toddlers 18 to 36 months

c Sort familiar objects into categories (cars with cars, plates separated from cups; rectangle blocks on one shelf and square blocks on another). MTE-3C

d Can follow along and imitate patterns of sounds and movement (for example, repeating a chorus in a song or clapping a simple rhythm). MTE-3D

Younger Preschoolers 36 to 48 months

e Sort familiar objects into categories (cars with cars, plates separated from cups; rectangle blocks on one shelf and square blocks on another). MTE-3E

f Identify familiar objects as the same or different. MTE-3F

g Recognize simple repeating patterns (AB type patterns) and attempt to repeat or extend them during play (repeat a movement pattern during a song, extend a line of blocks in alternating colors). MTE-3G

Older Preschoolers 48 to 60+ months

h Sort a group of objects (0-10) using one attribute (color, size, shape, quantity) with increasing accuracy (sort blocks by shape and place like-shaped blocks on the shelf; sort beads by color or another attribute). MTE-3H

i Describe, duplicate and extend simple repeating patterns (twopart patterns) using concrete objects (look at a pattern of beads and tell what bead comes next in the pattern). MTE-3I

j Show beginning abilities to create simple repeating patterns. MTE-3J

Foundations for Geometry and Spatial Understanding

4 Children begin to identify, describe, classify, and understand shape, size, direction, and movement during play and other activities. MTE-4

Infants Birth to 12 months

a Examine different shapes by exploring (banging blocks on the floor, rolling balls). MTE-4A

b Attempt to put objects into other objects (such as putting pieces into holes or other spaces). MTE-4B

Younger Toddlers 8 to 21 months

c Explore space with their bodies (fit self into large box, crawl under table, climb over low walls). MTE-4C

d Put basic shapes into a shape sorter using trial and error. MTE-4D

Older Toddlers 18 to 36 months

e Respond to and begin to use words describing positions (in, on, over, under, etc.). MTE-4E

f Name or match a few 2- and 3-dimensional shapes (circle, square, cylinder). MTE-4F

g Stack or line up blocks that are the same shape. MTE-4G

h Complete shape sorter with intention. MTE-4H

Younger Preschoolers 36 to 48 months

i Respond to and begin to use words describing positions (in, on, over, under, etc.). MTE-4I

j Name or match a few 2- and 3-dimensional shapes (circle, sphere, square, triangle, cone) and describe their differences. MTE-4J

k Stack or line up blocks that are the same shape. MTE-4K

Older Preschoolers 48 to 60+ months

l Consistently use a variety of words for positions in space (in, on, over, under, etc.), and follow directions using these words. MTE-4L

m Use 2- and 3-dimensional shapes to represent real world objects (say, “We are building a castle and we need a round block for the tunnel.” “I glued a circle and a square on my picture to make a house.”). MTE-4M

n Identify basic 2- and 3-dimensional shapes (square, circle, triangle) in the environment. MTE-4N

o Name basic 2 and 3-dimensional shapes (square, prism, circle, sphere, triangle, pyramid, hexagon), and describe their characteristics using informal descriptive and geometric attributes (“That’s a triangle; it’s pointy.” “It’s a circle because it’s round.”). MTE-4O

Foundations of Measurement and Data Analysis

5 Children demonstrate a beginning understanding of measurement (the idea of repeating the use of an object to measure) and a beginning understanding of data analysis through comparing and interpreting data during play and other activities. MTE-5

Infants Birth to 12 months

a Examine objects of different sizes by exploring (touch, pick up, and move objects). MTE-5A

Younger Toddlers 8 to 21 months

b Participate in activities that compare the size and weight of objects. MTE-5B

c Engage in beginning explorations with temperature (quickly touching cold and warm items). MTE-5C

Older Toddlers 18 to 36 months

d Use size and amount words to label and compare objects, people, and collections (big truck, a lot of crackers, little baby). MTE-5D

e Engage in continued explorations with temperature. MTE-5E

Younger Preschoolers 36 to 48 months

f Use descriptive language for size, length, or weight (short, tall, long, heavy, big). MTE-5F

g Compare the size or weight of two objects and identify which one is longer/taller/ heavier than the other ("That rock is heavier than this one. I can lift it." "The snake is longer than the worm"). MTE-5G

h Use simple measurement tools with guidance and support to informally measure objects (a ruler, measuring cup, scale). MTE-5H

i Describe the weather as hot or cold. (Engage in explorations with temperature). MTE-5I

j Recognize routines with time passing throughout the day (identifying circle time, snack time, outside play, etc.). MTE-5J

Older Preschoolers 48 to 60+ months

k Use descriptive language for size, length, or weight (short, tall, long, heavy, big). MTE-5K

l Directly compare more than two objects by size, length, or weight ("That rock is heavier than these others; I can't lift it." Look at three strings that are different lengths and select the longest string). MTE-5L

m Put a few objects in order by size, length or weight (arrange a group of 3 blocks in order from the shortest to the longest). MTE-5M

n Use simple measurement tools with guidance and support to informally measure objects (a ruler, measuring cup, scale). MTE-5N

o Describe the weather as hot or cold. (Continue to engage in explorations with temperature). MTE-5O

p Recognize routines with time passing throughout the day (identifying circle time, snack time, outside play, etc.). MTE-5P

Mathematical Thinking and Reasoning

6 Children use mathematical thinking to solve problems in their everyday environment. MTE-6

Infants Birth to 12 months

Emerging

Younger Toddlers 8 to 21 months

Emerging

Older Toddlers 18 to 36 months

Emerging

Younger Preschoolers 36 to 48 months

a Seek answers to questions by using mathematical thinking (i.e. reasoning and problem solving) during play and daily activities (determine who is taller by standing next to classmate; find two smaller blocks to replace larger block). MTE-6A

b Use drawing and concrete materials to represent and communicate mathematical ideas (draw many circles to show "lots of people," put craft sticks in a pile to show the number of children who want crackers for snack). MTE-6B

c Develop and consistently use intentional strategies when working with knobbed puzzles and similar materials. MTE-6C

Older Preschoolers 48 to 60+ months

d Seek answers to questions during play and daily activities using an increasing variety of mathematical strategies (figure out how to balance a block structure; to build a bridge; to create a pattern with Legos®). MTE-6D

e Use drawing, writing, and concrete materials to represent and communicate a variety of mathematical ideas (draw shapes to represent pattern; stack different-colored blocks to represent classmates' answers to a survey question). MTE-6E

f Begin to explain how a mathematical problem was solved ("I saw that there was always a blue flower after a red flower so I knew to put a blue one next." "I counted four friends who didn't have crackers so I got four more."). MTE-6F

g Identify and describe strategies used to complete increasingly difficult puzzles (for example, when completing a floor puzzle, working on the edges first). MTE-6G