

Mathematics: Age 4–5/Not Yet in Kindergarten

COUNTING AND CARDINALITY

1 Child knows number names and the count sequence. 1

- a Says or signs more number words in sequence. 1.A
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2 Child recognizes the number of objects in a small set. 2

- a Quickly recognizes the number of objects in a small set (referred to as “subitizing”). 2.A
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3 Child understands the relationship between numbers and quantities. 3

- a Understands that number words refer to quantity. May point to or move objects while counting objects to 10 and beyond (one-to-one correspondence). 3.A
 - b Understands that the last number represents how many objects are in a group (cardinality). 3.B
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4 Child compares numbers. 4

- a Counts to determine and compare number amounts even when the larger group’s objects are smaller in size, such as buttons, compared with the smaller group’s objects that are larger in size, such as markers. 4.A
 - b Uses numbers related to order or position. For example, the child knows that three comes before four. 4.B
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5 Child associates a quantity with written numerals and begins to write numbers. 5

- a Understands that written numbers represent quantities of objects and uses information symbols, such as a tally, to represent numerals. 5.A
 - b With trusted adult support, writes some numerals up to 10. 5.B
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OPERATIONS AND ALGEBRAIC THINKING

6 Child understands addition as adding to and understands subtraction as taking away from. 6

- a With adult support, solves addition problems by joining objects together and subtraction problems by separating, using manipulatives and fingers to represent objects. 6.A
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7 Child understands simple patterns. 7

- a Creates, identifies, extends, and duplicates simple repeating patterns in different forms, such as with objects, numbers, sounds, and movements. 7.A
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NUMBERS AND OPERATIONS IN BASE TEN

8 Child works with numbers 11 to 19 to gain foundations for place value. 8

- a Not addressed in Head Start Early Learning Outcomes Framework. 8.A
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MEASUREMENT AND DATA

9 Child measures objects by their various attributes using standard and non-standard measurement and uses differences in attributes to make comparisons. 9

- a With some trusted adult support, uses measurable attributes to make comparisons, such as identifies objects as the same/different and more/less. 9.A
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10 Child classifies objects into given categories; counts the numbers of objects in each category and sorts the categories by count. (Limit category counts to be less than or equal to 10). 10

- a Not addressed in HEAD START EARLY LEARNING OUTCOMES FRAMEWORK. 10.A
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GEOMETRY AND SPATIAL SENSE

11 Child identifies, describes, compares, and composes shapes. 11

- a Recognizes and compares a greater number of shapes of different sizes and orientations. 11.A
 - b Begins to identify sides and angles as distinct parts of shapes. 11.B
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12 Child explores the positions of objects in space. 12

- a Increasingly understands spatial vocabulary. 12.A
- b Follows directions involving their own position in space, such as “Move to the front of the line.” 12.B