

Math (MATH)

Spatial Thinking 1

Child shows increasing understanding of objects in relation to each other and how objects move in space

1 Spatial Thinking 1

Responding

- E Responds physically to experiences in their immediate environment **EARLIER**
- L Explores, responds to, and acts on objects, people, or own body movements through space **LATER**

Exploring

- E Explores the relationship between self and objects or people in space **EARLIER**
- L Uses trial and error to make discoveries about spatial relationships or movement of self or objects through space **LATER**

Building

- E Takes into account spatial relationships and physical properties when exploring possibilities of fitting objects together **EARLIER**
- M Demonstrates understanding of objects in relation to each other or their own body **MIDDLE**
- L Demonstrates understanding of objects in relation to multiple spatial cues **LATER**

Integrating

- E Demonstrates understanding of how an object moves in space (i.e., how objects move, rotate, turn, flip, or slide to move to a new place) **EARLIER**
- M Demonstrates understanding about how objects can be moved and combined with other objects to create a new object that they specify in advance **MIDDLE**
- L Creates a two-dimensional or three-dimensional representation of the patterns or relationships between objects **LATER**

Classification 2

Child shows increasing ability to sort objects into groups according to attributes, qualities, features, characteristics, or use

2 Classification 2

Responding

- E Attends to people, objects, or events **EARLIER**
- L Interacts differently with familiar people and objects than with unfamiliar people and objects **LATER**

Exploring

- E Associates a person or object with another person or object, based on a similarity or relationship between them **EARLIER**
- L Demonstrates understanding of the similarities of a group of objects based on one attribute or the relationship between them **LATER**

Building

- E Sorts objects into two groups based on one attribute, but not always accurately **EARLIER**
- M Sorts objects accurately into more than two groups based on one attribute **MIDDLE**
- L Sorts objects into two or more groups based on one attribute, then puts all the objects together and re-sorts the entire collection based on a different attribute **LATER**

Integrating

- E Sorts objects into groups based on at least two attributes, sometimes sorting by one attribute and then subdividing those groups based on a second attribute **EARLIER**
- M Sorts objects into categories by attributes that are not immediately observable (i.e., other than size, color, and shape) and describes the resulting categorical groups **MIDDLE**
- L Sorts objects to gather and organize information, compares the groups of objects, and interprets the information **LATER**

Number and Counting 3

3 Number and Counting 3

Child shows developing understanding of number and quantity

Responding

- E Notices people or objects nearby in the environment **EARLIER**
- L Explores one object at a time **LATER**

Exploring

- E Attends to quantity in different situations **EARLIER**
- L Uses number words, signs, or gestures to communicate about small quantities **LATER**

Building

- E Demonstrates one of the following within quantities of 20: **EARLIER**
 - 1 correctly uses the number sequence
 - 2 uses one-to-one correspondence
 - 3 uses cardinality
- M Demonstrates two of the following within quantities of 20: **MIDDLE**
 - 1 correctly uses the number sequence
 - 2 uses one-to-one correspondence
 - 3 uses cardinality
- L Demonstrates all three of the following within quantities of 20: **LATER**
 - 1 correctly uses the number sequence
 - 2 uses one-to-one correspondence
 - 3 uses cardinality

Integrating

- E Demonstrates all three of the following quantities with more than 20: **EARLIER**
 - 1 correctly uses the number sequence
 - 2 uses one-to-one correspondence
 - 3 uses cardinality
- M Demonstrates understanding that numbers up to 100 are composed of tens and additional ones **MIDDLE**
- L Decomposes numbers greater than 20 into different combinations of ones, fives, and 10's **LATER**

Number Operations 4

4 Number Operations 4

Child shows increasing ability to add and subtract small quantities of objects

Exploring

- E Demonstrates awareness of changes in quantity **EARLIER**
- L Recognizes that single objects can be put together in groups of two **LATER**

Building

- E Demonstrates understanding of quantities up to five **EARLIER**
- M Adds to or subtracts (takes away) from quantities in familiar contexts, without determining the total quantity **MIDDLE**
- L Solves addition and subtraction problems up to five in familiar contexts **LATER**

Integrating

- E** Solves addition and subtraction problems up to 10 in familiar contexts **EARLIER**
 - M** Decomposes (breaks apart) a quantity up to 20 in more than one way **MIDDLE**
 - L** Solves addition and subtraction problems up to 20 **LATER**
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Measurement 5

Child shows increasing understanding of measurable properties such as size, length, weight, and capacity (volume), and how to quantify those properties

5 Measurement 5

Exploring

- E** Explores measurable properties of objects (e.g., size, length, weight, capacity) **EARLIER**
 - L** Demonstrates awareness of the dimension of size as relevant to completing a task **LATER**
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Building

- E** Describes objects in terms of measurable properties **EARLIER**
 - M** Identifies differences in size, length, weight, or capacity between two objects, using comparative words (e.g., "bigger," "smaller") **MIDDLE**
 - L** Orders three or more objects according to measurable properties **LATER**
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Integrating

- E** Measures properties using nonstandard or standard units though units may overlap or have gaps **EARLIER**
- M** Compares two objects with a measurable property in common to see which object has "more of" or "less of" the property, and describes the difference **MIDDLE**
- L** Demonstrates understanding that a measurable property can change value depending on the unit (e.g., it will take more inches than feet to measure the something) **LATER**