

Math Version

Sample Big Ideas for Early Learning™

Big Idea	Definition and Examples
Associations (relationships)	<p>Associations represent relationships or connections between objects, people, and/or events. Knowledge of associations allows children to understand relationships, differences/similarities, and how things organize.</p> <ul style="list-style-type: none"> • <u>quantity</u> relations are the specified or indefinite <i>amount</i> of objects, people, and/or events, which can be <i>measured or counted</i>. <ul style="list-style-type: none"> ○ Children demonstrate understanding of <i>concepts and terms</i> such as none, some, all, any, few, fewer, fewer than, more, more than, less, less than, greater, greater than, same, equal, equal to, equivalent, many, one to one, pair, set, and each. ○ Children demonstrate understanding of actual <i>numerical values/units</i> such as 3, 8, and 14. • <u>size</u> relations describe “how big” or the <i>extent, degree, magnitude, proportion, or dimension</i> of objects, people, and/or events. <ul style="list-style-type: none"> ○ Children demonstrate understanding of concepts and terms such as tiny, little, narrow, small, medium, large, broad, wide, giant, big, most, and least. • <u>spatial</u> relations describe the <i>position, where, or the way</i> objects, people, and/or events are situated. <ul style="list-style-type: none"> ○ Children demonstrates understanding of concepts and terms such as in, out, on, off, under, up, down, over, here, there, where, above, below, on top of, high, low, top, middle, bottom, far, near, next to, around, behind, start, away, beside, end, forward, outside, back, front, and between.
Attributes (characteristics)	<p>Attributes represent the distinctive or inherent characteristics or property of objects, people, and/or events. Knowledge of attributes allows children to understand the particular cause or source, the criteria used to group things, and to describe and recognize features.</p> <ul style="list-style-type: none"> • <u>shape</u> characteristics describe the <i>outline or form</i> of a defined area (i.e., the length and width). <ul style="list-style-type: none"> ○ Children demonstrate understanding of concepts and terms such as circle, oval, square, rectangle, octagon, rhombus, hexagon, twist, spiral, edge, face, vertex, corner, angle, vertical, horizontal, round, side, curved lines, and straight lines. ○ Includes three-dimensional shapes (e.g., cones, pyramids, and cubes).
Classifying (grouping/sorting)	<p>Classifying is the ability to group/sort animals, events, objects, people, sounds, etc., based upon various attributes. Children demonstrate an ability to classify using knowledge of <i>color, quality, shape, and texture</i> concepts and terms. Children can also classify using <i>criteria</i> such as <i>function or categories</i>.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Child tells a friend that one pile of action figures are the good guys and one pile are the bad guys. • Child sorts the square blocks from the triangle blocks and the plastic blocks from the wooden blocks. • Child separates the cards with written numerals from written letters.

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Comparing and contrasting (relating)	<p>Comparing and contrasting is the ability to associate, relate, or recognize the similarities and differences of individual or sets of sounds, objects, people, and/or events.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Child discusses which shoe is the <i>longest</i> and <i>shortest</i>. • Child looks at her glass of milk and others' in the classroom and states, "I have <i>less</i> milk than everyone else." • The teacher asks, "Which word does not rhyme with stitch: witch, pitch, or cat?" and child says "Cat." • Child describes how the illustrator's pictures are the <i>same</i> in two books.
Creating	<p>Creating is when children demonstrate the ability to design, produce, and/or construct new "things" (e.g., objects, images, words, events, ideas, perspectives). New "things" can be generated by connecting new information with past experiences or by changing something that exists but changing how it appears or is used. Children create by extending & modifying vs. directly imitating or recreating something that already exists.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Child suggests a new use for plastic bottles. • Child constructs a new sign to indicate that it is playtime. • Child composes a book entitled "My Favorite Dinosaurs". • Child initiates an idea of helping a classroom friend in need. • Child creates a chart to record the number of times they bounced a ball.
Reasoning (explaining)	<p>Reasoning is the ability to make inferences, make predictions, give explanations, and/or draw conclusions. Children also demonstrate reasoning when they <i>understand why</i> certain outcomes result from certain actions or thoughts.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Child gives reasons and possible causes • Child informs/shares explanations • Child describes hypotheses, ideas, & evidence • Child writes/draws to express & share ideas & opinions • Child uses creative movement to express concepts, ideas, & feelings
Comprehending (understanding and acting)	<p>Comprehending is when a child remembers, recalls from memory, understands information AND uses/acts upon the information. Children use or act upon information recalled, verbally (e.g., asking and answering questions, telling) and non-verbally (e.g., following directions, matching, imitating).</p> <p>Examples:</p> <ul style="list-style-type: none"> • Child answers questions about what happened to the puppy in the story read during snack. • Child understands they have to wait their turn. • Child walks around the structures being built on the floor with blocks instead of walking through the structures. • Child chooses between 3 song options when asked by a teacher, "Which song do you want to sing today?"
Recall (remembering)	<p>Recall is when a child presents remembered ideas, facts, or experiences from memory using verbal and/or non-verbal expressions (e.g., by drawing, listing, reporting, quoting, reciting, repeating, arranging, telling, naming, defining, matching). Recall is a step that comes before comprehension.</p>

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	<p>Recall involves retrieving knowledge from memory about an event that occurred (a) immediately, (b) within the same day with a context, (c) within the same day but without a context, or (d) in the past with or without a context. A context is defined as having materials, people, sounds or other reminders present that prompt/clue child in recalling information.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Child walks in the classroom and a peer asks “Where were you?” and the child answers, “In the bathroom.” • During circle time with peers visible, adult says, “When you were outside earlier today, who did you play with?” and the child looks at and says “Beth.” • Adult asks “What did you make in art today?” and child pulls a picture from backpack.
Symbolizing (representing)	<p>Symbolizing is the ability to use words, objects, people, pictures, icons, characters, or labels to take the place of and/or represent another event, idea, emotion, location, object, or person.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Child makes roads, buildings, and bodies of water using different colored blocks. • Child draws a map of the roads from his house to school. • Child takes on the role of the doctor, and tells the other children to be the patient and the nurse, and then pretends to write prescriptions. • Child stacks blocks to measure how tall he is. • Child picks up a cube block and says it looks like a box.

Note: Content adapted from Pretti-Frontczak, K., Jackson, S., Korey-Hirko, S., Brown, T., & Smith, M. (2013). *Big Ideas for Early Learning: Glossary*TM. Brooklyn, NY: B2K SolutionsSM, Ltd. and Pretti-Frontczak, K., Jackson, S., McKeen, L., Schuck, E., & Stackhouse, J. (2005). *Big Ideas Toolkit: Alignment Implementation Process*. Kent State University.

To learn more about the Big Ideas for Early LearningTM, or to order the glossary, which contains five (5) Knowledge Big Ideas and 11 Process Big Ideas contact Dr. Kristie Pretti-Frontczak at <http://kristiepf.com>.

