



FOR EARLY LEARNING™

Glossary

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Big Ideas for Early Learning™: Glossary
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Introduction to Big Ideas

Determining “what to teach” young children is influenced by district, agency, state, and federal early learning standards (Scott-Little, Kagan, Frelow, & Reid, 2008; Scott-Little, Lesko, Martella, & Milburn, 2007; White House, 2002). For example, a Head Start teacher living in Ohio serving a preschooler with a disability would, at a minimum, be guided by domain elements of the Head Start Child Development and Early Learning Framework, the Ohio Early Learning and Development Standards, and Office of Special Education Program’s child outcomes, resulting in over 100 “things” to be taught. Additionally, many preschool teams are required to adopt and implement a curriculum which may include additional resources, formative assessments, and/or activities with additional “things” to be taught (Grisham-Brown & Pretti-Frontczak, 2011).

One strategy teams can employ to manage “what to teach” young children is to identify the Big Ideas underlying the 100s of indicators, standards, and outcomes that teachers and providers are expected to target. Big Ideas present a way to think about outcomes for learning that show the connection between isolated facts, figures, and skills. Kame’enui and colleagues (2002) define Big Ideas as “highly selected concepts, principles, rules, strategies, or heuristics that facilitate the most efficient and broadest acquisition of knowledge” (p. 9). In general, Big Ideas promote the integration of knowledge and skills, and lead to deeper learning (Grisham-Brown & Pretti-Frontczak, 2013).

Big Ideas for Early Learning™: Glossary

In 2005, an initial set of 25 Big Ideas were developed to consolidate and align indicators from Ohio’s Early Learning Standards with early childhood curricula (Pretti-Frontczak, Jackson, McKeen, Schuck, & Stackhouse, 2005). The 25 Big Ideas represented broad concepts and skills covering content from subject areas (e.g., Language Arts, Mathematics) and developmental domains (e.g., Social, Adaptive).

The Big Ideas for Early Learning™: Glossary includes five (5) Knowledge Big Ideas and 11 Process Big Ideas (see Table 1 for an alphabetical listing). The Knowledge Big Ideas represent what young children should know related to factual information, concepts, and terms. The Process Big Ideas represent ways of acting upon and using knowledge. Specifically, the Big Ideas for Early Learning™: Glossary contains a definition of each Big Idea, additional definitions of components of the Big Idea, and examples of how children demonstrate the Big Idea using multiple means of expression. The examples are designed to illustrate the multitude of formats children can use for (a) responding; (b) interacting; (c) using resources, toys, and materials; (d) conveying meaning; and (e) expressing ideas, feelings, and preferences.

Table 1. Alphabetical Listing of Preschool Knowledge and Process Big Ideas

Knowledge Big Ideas		Process Big Ideas	
1. Associations		1. Classifying	7. Problem Solving
2. Attributes		2. Comparing and Contrasting	8. Reasoning
3. Function		3. Comprehending	9. Segmenting and Blending
4. Labels		4. Creating	10. Sequencing
5. Reliance		5. Inquiry	11. Symbolizing
		6. One-to-One Correspondence	

Considerations When Using the Glossary

The Big Ideas contained in the glossary, while designed to cover critical knowledge and processes that should be acquired and refined during the preschool years, do not reflect an exhaustive list of all the content that can or should be addressed. Further, our examples are just that – examples. Again, this is not an exhaustive list of the multitude of ways children with diverse abilities can show us what they know and can do. Therefore, we offer three cautions when using the glossary.

First, it is imperative that teams provide children with different ways and opportunities to: a) demonstrate what they know and are able to do; b) express their feelings and preferences; c) convey meaning; and d) build upon their individual strengths or abilities (DEC, 2007). When assessing children and planning and revising instruction, children should be encouraged to use verbal and/or non-verbal expressions:

Verbal expressions include but are not limited to speaking, signing speech, singing, rapping, or using assistive technology such as voice output devices to enable verbal expressions. Verbal expressions are used for purposes such as labeling, asking questions, answering questions, commenting, informing, greeting, rhyming, reciting, describing, discussing, explaining, reporting, translating, predicting, or directing others.

Non-verbal expressions include but are not limited to manipulating, motioning/gesturing, pointing, drawing, painting, underlining, marking, pantomiming, dancing, or using assistive technology such as a white board to enable non-verbal expressions. Non-verbal expressions may be used for purposes such as showing (rather than telling), representing, following directions, matching, sorting, comparing, locating, diagramming, illustrating, reviewing, selecting, or grouping.

Thus, when using the Big Ideas as part of instructional planning, teams need to ensure children are given multiple ways or means of expressing what they know and can do. Further, the examples provided across the glossary are designed to illustrate multiple means of expression and should be representative of verbal and non-verbal expressions. Teams are, however, encouraged to add examples over time.

Specific to the Big Idea of LABELS, additional, and possibly endless examples could have been provided; however, we used the Big Idea of LABELS to include things that were not directly covered by another Big Idea (e.g., types of shapes could have been included in LABELS but shapes is addressed in ATTRIBUTES).

Second, depending upon a child's intention, demonstration of various concepts, terms, and processes may fit into one or more Big Ideas or multiple components of a Big Idea. In other words, the Big Ideas are not necessarily mutually exclusive. Further, existing assessments and/or curricula may classify important as ensuring multiple and varied opportunities for children to gain an understanding of all the Big Ideas. Equally important is to understand that a single statement, request, directive, and/or model provided by an adult/peer can create a learning opportunity across multiple Big Ideas. Again, it is less important to create learning opportunities that address a single Big Idea than it is to be clear and intentional about what is being taught. To promote growth and learning, children need to receive the right amount of support and scaffolding and teams need to reinforce and provide adequate feedback regarding the desired behavior (Grisham-Brown & Pretti-Frontczak, 2011).

Third, growth and learning during the preschool years is more than the acquisition of knowledge and skills. During the preschool years children also learn to become more independent, refine the accuracy and precision with which they act, develop confidence, adapt to changing and even distracting conditions, demonstrate perseverance, and increase strength and stamina. Many learning outcomes for young children reflect such qualities or dimensions of behavior and while such attributes are not identified in a single Big Idea, they are qualities that should be promoted across all Big Ideas.

5 Knowledge

Big Ideas

What Children Know - Concepts and Terms



ASSOCIATIONS (RELATIONSHIPS)

Associations represent **relationships** or **connections** between objects, people, and/or events. Knowledge of **associations** allows children to understand relationships, differences/similarities, and how things are organized.

Children demonstrate understanding of associations between objects, people, and/or events using *quantity*, *size*, *spatial*, and *temporal* concepts and terms.

- *Quantity* relations describe the specified or indefinite *amount* of objects, people, and/or events, which can be *measured* or *counted*.
 - Children demonstrate understanding of *concepts* and terms 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 numerical *values/units* such as 3, 8, and 14.
 - Children demonstrate understanding of *weight* (amount of heaviness) concepts and terms such as heavy, light, fat, thin, gram, pound, full, empty, solid, liquid, gas, and plasma.
 - Children demonstrate understanding of *length* (amount of vertical space) concept and terms, such as tall, long, high, great, short, and low.

Examples:

- Child counts the number of girls and the number of boys and says, “There are *more* girls.”
- When asked which pile of blocks has *fewer*, the child points to the pile with 2 instead of the pile with 10 blocks.
- Child states that one puzzle has 10 pieces and another has 3.
- Child says, “I don’t have *any*.” when asked to borrow a marker.
- Child counts her fish crackers and her friend’s and declares, “We have the *same*.”
- Child says, “I used *lots* of red paint on my picture.”
- When directed to put away *all* the toys, child puts *all* the dinosaurs on the shelf.
- Child says, “My glue bottle is *empty*.”
- While on a walk, child says, “That building is *tall*.”
- When directed, child points to the *short* stack of recycling materials.
- Child says, “We need 15 books,” and counts up to 15 and stops.
- A teacher says, “Give me 8,” and child counts out 8 items.

ASSOCIATIONS (RELATIONSHIPS)

- Size relations describe “how big” or the *extent, degree, magnitude, proportion, or dimension* of objects, people, and/or events.
 - Children demonstrate understanding of concepts and terms such as tiny, little, narrow, small, medium, large, broad, wide, giant, big, most, and least.

Examples:

- Child arranges objects in order of *small, medium, and large*.
- When asked who has the *least*, child points to friend.
- Child asks for a *long* key to fit into a lockbox.
- Child says, “He is too *big* for that chair.”
- When asked, the child builds a road that is *at least as long* as the train track.
- Child selects a *big* drop cloth to cover the area under the easel
- Child says, “I’m going to draw a *giant* balloon.”
- When directed, child points to the picture of *small* letter E.
- Child makes a *wide* opening so friends can push a wagon to the other side of the room.
- Child hugs their knees to their chest and says, “I’m *tiny* like an egg.”

ASSOCIATIONS (RELATIONSHIPS)

- Spatial relations describe the *position*, *location*, or the *manner* objects, people, and/or events are situated.
 - Children demonstrate 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.

Examples:

- Child says, “The leaves are falling *on* the ground.”
- While reading, “Where’s Waldo”, the child looks for Waldo when asked if he is at the *top* of the page, the *middle* of the page or, at the *bottom* of the page?
- Child sets the table by putting the fork *beside* the plate.
- Child says, “I can!” when asked who can stretch way *up high*?
- Child points to the *next* child in line when asked, “Who is next?”
- Child places bean bag *on top* of his head, foot, and hand as instructed in “The Bean Bag Song”.
- Child moves *in*, *out*, *up*, and *down* through an obstacle course.
- Child refills their cup of juice when it is getting *low*.
- Child asks, “*Where* is my house?” while looking at a map.
- Child says, “You *start* the game by pushing the button.”
- Child says, “Come over *here*.”
- Child twirls and says, “I’m going *around*.”

ASSOCIATIONS (RELATIONSHIPS)

- *Temporal* relations are how objects, people, and/or events are *ordered/sequenced* based upon *units* or *periods of time*.
 - Children demonstrate understanding of concepts and terms such as before, after, when, yesterday, tomorrow, today, now, later, early, if-then, soon, next, last, first, second, third, past, present, future, history, ancient, old days, era, ancestry, lifetime, orbit, cycle, decade, week, month, and year.
 - Children demonstrate understanding of the *relative distance* between events as measured in units or periods of time.

Examples:

- Child says, “I wasn’t here *yesterday* because I was sick.”
- Child reminds the substitute teacher that they go on the playground *after* snack in the morning.
- Child knows *if* the clean-up song plays, *then* it is time to clean.
- Child moves an icon to the *first* routine on schedule to start the day.
- Child says, “*Before* I build the road, I will find my tools.”
- Child says, “*When* I grow up, I will be a doctor”.
- Child says, “*When* I was a little baby, I *wore* diapers.”
- Teacher says, “We have five more school days, *then* it will be vacation” and the child smiles and says, “It will be here *soon*.”
- Child waits after the teacher says, “*First* it is Andrew’s turn, *then* Mark’s, *then* yours.”
- Child points to a picture of the library when asked, “Where are we going *today*?”
- Child is able to leave his dad’s side and enter the classroom because he knows *after a few hours* his dad will be back to pick him up.

ATTRIBUTES (CHARACTERISTICS)

Attributes represent the **distinctive or inherent characteristics** or **properties** of objects, people, and/or events. Knowledge of **attributes** allows children to understand the particular cause or source of phenomena, the criteria used to group things, and to describe and recognize features.

Children demonstrate understanding of the attributes of objects, people, and/or events using *color*, *quality*, *shape*, and *texture* concepts and terms.

- *Color* characteristics are properties created by *light striking* objects and/or people, and then the way the *light is reflected/emitted*.
 - Children demonstrate understanding of concepts and terms such as red, dark blue, purple, yellow, black, white, light brown, pastel pink, fuchsia, amber, bronze, magenta, indigo, shade, hue, brightness, clear, contrast, fading, illuminate, light, luster, matte, neutral, reflection, sheen, tint, and visible.

Examples:

- When asked “What color paint do you want”, child responds “*Yellow*.”
- When playing outside the child points to the sky and says, “The sky is *light blue*.”
- Child says, “It’s hard to see my *reflection* in the window.”
- Child clears away sand when asked to make the shovel *visible*.
- Child puts all the *red* chips together and the *black* chips together before starting a game of checkers.
- Child squints when opening curtains, and says, “It’s *bright* outside.”
- Child points to a picture of a lamp when asked what we use to *illuminate* a dark room.
- Child picks a *light brown* crayon when directed to color the girl’s hair a lighter shade of *brown*.
- Child points to her skirt and says to a friend, “We *match*” – both children are wearing *pink* skirts.
- As the sun sets, the child says, “The sun is *fading*.”

ATTRIBUTES (CHARACTERISTICS)

- *Quality* characteristics are *personality traits, conditions* or *physical properties* such as frequency, pressure, temperature, and strength, and/or descriptions of an *expected standard, level, or grade* (e.g., child's communication efforts are *intelligible*, child is able to *effectively* manipulate objects) of objects, people, and/or events (in other words – “how well” a child demonstrates something).
- Children demonstrate understanding of concepts and terms such as, funny, charming, boring, shy, assertive, confident, sharp, flat, loud, gentle, powerful, weak, hard, soft, runny, stiff, fast, slow, swift, hot, cold, warm, clean, dirty, wet, dry, sweet, sour, salty, bitter, understandable, correctly, completely, independently, accurately, and quickly.

Examples:

- Child says, “You are *funny*!”
- Child lowers voice when told to speak *softly*.
- After being asked if their lunch is too *hot*, the child says “No.”
- Teacher complements child on her *completed* 5-piece puzzle.
- The child repeats her answer to the question to *better pronounce her words* when the teacher is unsure what she said
- Child *independently* washes hands before coming to snack.
- Child recites the letters of the alphabet in *correct* order.
- Child describes a rafting trip with their family and tells others how sometimes the water was *fast* and sometimes it was *slow*.
- Child walks *slowly* for better control when walking on the curb.
- The child had *puckered* lips and cheeks after tasting a lime.
- Child holds pencil with *enough force* to be able to draw and erase.

ATTRIBUTES (CHARACTERISTICS)

- *Shape* characteristics describe the *outline* or *form* of a defined area (i.e., the length, depth, and width).
 - 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, spherical, cylindrical round, side, curved lines, and straight lines.
 - Includes three-dimensional shapes (e.g., cones, pyramids, cubes, and spheres).
- Examples:
 - Child says, “I drew a *straight line*!”
 - When asked, the child points to the *circle* and then the *square*.
 - Child uses a *circle* for the face, a *rectangle* for the body, and *lines* for arms and legs when drawing a picture of his/her sister.
 - Child says, “It doesn’t look like an ice cream *cone*” after looking to see what a friend drew.
 - Child says, “It’s a *circle* because it doesn’t have *straight lines*.”
 - Child says, “The *pointy* one.” when asked which is the *triangle*.
 - Child creates a *diagonal* road with blocks to connect two buildings.
 - Child writes name from left to write on a *horizontal* plane.
 - Child touches the *face* and the *edges* of the cube as directed.
 - Child discusses with a small group *why certain shapes belong and why others do not*.

ATTRIBUTES
(CHARACTERISTICS)

- *Texture* characteristics describe the *look* or *feel* of a surface or substance.
 - Children demonstrate understanding of concepts and terms such as bumpy, smooth, rough, lumpy, gritty, scratchy, rippled, jagged, sandy, cracked, mushy, prickly, coarse, fuzzy, furry, and grainy.

Examples:

- Child withdraws his/her hand after reaching out to pet an animal with a *prickly* coat.
- Child says, “My bag is *lumpy*.”
- Child says, “I like dogs that are *furry*.”
- Child hugs a stuffed animal that is *soft* and *fuzzy* and rubs face on the animal while smiling.
- Child says, “I need something *scratchy* to help me get this off.”
- Child says, “Oh, these stones are so *smooth*.”
- Child cuts out a sun with *jagged* lines to represent the sunrays.
- Child says, “I don’t like it when my cereal is *mushy*.”
- Child sorts fabrics that are *smooth* from those that are *scratchy*.
- Child pokes a stick in puddle of water and says, “Look at the *ripples*.”

FUNCTION
(INTENTION)

Function represents knowing the **intention** of *objects, roles, rules, and social norms* for the families, groups, communities, and cultures in which children belong/participate.

- *Objects* include tools, devices, materials, mediums, toys, body parts, modes of transportation, and structures.

Examples:

- Child uses *rulers to measure* the height of a block structure.
- Child says, “I need a *blanket to cover* my baby, she is cold.”
- Child answers, “*Bike!*” when asked what they *can ride outside*.
- Child says, “*Grocery store*” when asked which building in the community *contains food*.
- Child puts *hat* on head when getting ready to *go outside*.
- Child creates a pretend *train* by lining up chairs and directing children to *come aboard*.
- Child looks at *clock* when the teacher asks what *time* it is.
- Child uses *legs* to *walk* across the room and line up.
- Child goes to the *water fountain* to *refill water bottle*.
- Child makes a *card* for his friend’s *birthday*.
- Child *tosses a ball* to their friend.
- Child *records observations* from the playground on a *graph*.

- *Roles* include the *expected, assigned, or assumed behaviors, characteristics, or responsibilities* of the child or other individuals.

Examples:

- Child knows the *roles* of *family members* (e.g., Mom, Auntie).
- Child says, “One *writes* and one *draws*.” When asked the difference between the responsibilities of an *author* and an *illustrator*.
- Child takes on the *role* of a *puppy* during cooperative play.
- Child points to a picture of his *mother* when asked, “Who *picks you up* after school?”
- Child helps a *younger child* walk outside by *holding his hand*.
- Child says, “That chair is for the teacher.”
- Child points to the *clown* when asked, “Who makes you *laugh*?”
- Child makes sure to place the *appropriate felt pieces* on the board while the teacher reads the *story* to the class.
- Child states that *farmers* grow the *food* his mom bought at the store.
- Child informs the teacher that he will make sure that everyone gets a *napkin* when it is his turn to be *snack helper*.

- *Rules* include *expectations or regulations of behavior or language (written or spoken)* at home, at school, and in the community.

Examples:

- Child knows to *run on the playground* but *not inside the classroom*.
- Child identifies that car and jar rhyme, but car does not rhyme with mat because it doesn’t end with the same sound.
- Child knows when writing in English, to start at the left side of the paper, use a capital letter for the start of sentences, and to leave space between sentences.
- Child *crosses* the street holding onto her teacher’s hand and when the *WALK signal* is displayed.
- Child *raises his hand* when he has a *question*.
- Child *shares* toys with peers during *free play*.
- When speaking in English, the child describes nouns with the adjective before the noun.
- When working on a *puzzle*, child follows the *classroom rule* to put all of the pieces together before beginning another puzzle.
- Child turns the book right side up when she picks it up from the pile.
- Child checks the *timer* to see if it is their *turn to swing*.
- Child knows *eating too many sweets* can be *bad for their teeth*.

FUNCTION
(INTENTION)

- *Social norms* include patterns of *shared, expected, or common behaviors or beliefs* among a group. Social norms indicate what is *acceptable* and can exist even if unstated.

Examples:

- Child says, “We are *celebrating my birthday* this weekend.”
- Child says, “*Thank you.*” after a *friend* gives him/her a bottle of glue.
- Child *covers mouth* when he/she *coughs*.
- Child *smiles in response* to a smile from the teacher.
- Child *waits* to describe what he built in the block area *until his teacher finishes* her question to him.
- Child shares that his family *stays home for holidays*, but his *friend’s family goes to the beach*.
- Child *hugs her mom* when dropped off at school and *gives her teacher a high five* as a greeting.
- The child states, “We *don’t wear our shoes in our house.*”
- After the child is done eating, he *recycles his plastic yogurt cup* and *throws his napkin in the trash*.
- Child explains he *calls his father “Papa”*.

LABELS (VOCABULARY WORDS)

Labels represent ways to **address**, **name**, and **identify** objects, people, and/or places/events. Labels allow children to catalog, classify, search, and assign values/tags.

Examples of Label Categories:

- *Body Parts* (e.g., head, shoulder, elbow, cheek, eyes, toes)
- *Emotions* (e.g., happy, sad, mad, embarrassed, scared)
- *Events* (e.g., county fair, festival, birthday, Christmas, Hanukkah, Kwanza, anniversary, Spring Break, Bar/bat Mitzvah, vacation)
- *Letter Tags* (e.g., a, b, c, A, B, C)
- *Locations* (e.g., school, home, church, gym, bank, store, park, McDonalds, farm, train station)
- *Number Tags* (1, 2, 3, 13, 14, 20, 21)
- *Objects* (e.g., pen, block, iPad, cup, shoes, paint brushes, camera, table, light, shelf, clock)
- *Physical states* (e.g., tired, hungry, hurt, wound up, excited, calm)
- *Similar types of actions* (e.g., walk, prance, march, bend, stretch, twist)
- *Titles* (e.g., mother, father, aunt, police officer, teacher, friend)
- *Types:*
 - animals (e.g., dog, snake, elephant, zebra, bird, tiger)
 - buildings (e.g., church, bank, school, mall, library, store)
 - clothes (e.g., socks, pants, jackets, gloves)
 - currency (e.g., dimes, pennies, one dollar, five dollars)
 - days (e.g., school day, Monday, weekend, holiday)
 - food (e.g., cheese, crackers, apple, kiwi, water, milk, rice, chicken, potatoes, carrots, beans)
 - locations (e.g., park, classroom, bathroom, bus stop)
 - sounds (e.g., environmental, animal, language, musical)
 - transportation (e.g., train, bus, car, subway, airplane, bike, scooter, skateboard, roller skates)
- *Examples:*
 - Child says, “I’m tired” after running across the playground.
 - Child says, “Mom, can I play a game on your iPad?”
 - Child listens to different sounds and states that they heard a siren, thunder, barking dog, and a horn.
 - Upon request, the child puts the cars in one pile and the bikes in another.
 - Child makes a map and labels the area designated for the zoo, the grocery store, and his/her house.
 - Child touches associated body parts while singing “Head, Shoulders, Knees, and Toes.”
 - Child says the letter B.
 - Child shares that she has pasta, fruit, and cheese for lunch.
 - Child identifies the room numbers on each door.
 - Child names each of the main characters in the book.

RELIANCE (CAUSAL RELATIONSHIPS)

Reliance allows children to understand there are **interdependencies** and **interconnectedness** between objects, people, and/or events.

Reliance represents the **causal relationship/effects** between actions or events including *physical, biological, and/or personal/social*.

- *Physical* reliance includes knowing the *results of scientific laws or principles* such as those related to gravity, relativity, energy, motion, magnetics, mechanics, speed, chemical processes, and transformations.

Examples

- Child knows what happens to water at different temperatures.
- Child uses a magnet to pick up paperclips at the art table.
- Child observes that when he picks leaves from the tree, they dry out.
- Child observes that when the sun comes out after it stops raining, a rainbow appears.
- Child understands that when he reuses materials, he is saving energy.
- Child states, "It is really cold and it will probably snow."
- Child says, "Put it in the microwave if you want hot soup."
- Child pounds hammer harder when peg won't go through the hole.
- Child holds arms out in a "T" as he walks across a balance beam."
- When asked which will finish last between a driver in a car and a person riding a bike, the child responds, "Car".

RELIANCE (CAUSAL RELATIONSHIPS)

- *Biological* reliance includes knowing how living organisms (e.g., people, plants, animals) *interrelate, evolve/grow, transmit, share, and/or are influenced*. This can include how a child's own feelings and perceptions impact his/her actions.

Examples:

- Child knows they have blue eyes like their Dad.
- Child knows eating vegetables helps strengthen their bodies.
- Child knows to use a tissue or sneeze into the crook of their arm to avoid the spread of colds.
- Child says, "I am thirsty" and stops to get a drink.
- Child explains that when he is hot his head gets sweaty.
- Child says, "I had a fever, I was sick."
- Child understands that exercise is good for his body.
- Child says, "I am tired." when is it naptime.
- Child states, "I am big like my brother Jose."
- Child feels confident and tries to tie his/her shoes laces without help.
- Child knows he/she is safe when mom is nearby so he/she takes another step up on the ladder.
- Child places a flower in the sun to help it grow.
- Child knows he/she needs to use the bathroom, and asks the teacher to take him/her.

- *Personal/social* reliance includes knowing the *consequences of one's choices and actions*, the ability to *identify with and understand someone else's feelings*, knowing that desires, emotions, and beliefs *cause human action*, and knowing there is a *dependence* between people and groups.

Examples:

- Child answers an adult's question about why another child is crying.
- Child asks an adult to help in order to reach a desired toy.
- Child explains to adult, "We shared the dolls because other kids wanted to play."
- Child makes enough cookies to ensure each person gets one at snack.
- Child runs to his teacher when he is scared by a loud sound coming from outside.
- Child tells his friend "If you ask the teacher for help, she will get down the new blocks for you."
- Child understands that throwing his toy made the block tower fall.
- Child says, "My mom is at work but she will be back."
- Child separates her playdough, gives some to another child and says, "You can play with me."
- Child discusses the importance of conserving water so there will be enough for everyone.

11 Process



What Children Do - Use of Knowledge



CLASSIFYING (GROUPING/SORTING)

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 *color*, *quality*, *shape*, and *texture* concepts and terms. Children can also classify using *criteria* such as *function* or *categories*.

Examples:

- Child tells a friend that one pile of action figures are the good guys and one pile are the bad guys.
- Child gets all the cookbooks from the library and brings them to the housekeeping area.
- Child says, “I put all the dirty dishes in the sink.”
- Child sorts the square blocks from the triangle blocks and the plastic blocks from the wooden blocks.
- Child identifies which items are worn in warm weather versus in cold weather.
- Child sorts goldfish by color during snack.
- Child puts sweet foods in one basket and bitter foods in another.
- Child says, “The frog and the lizard feel slimy.”
- Child taps each of the girls on the head during circle, and says, “Come with me.”
- Child separates the cards with written numerals from written letters.

COMPARING & CONTRASTING (RELATING)

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.

Children demonstrate an ability to compare and contrast using knowledge of *quantity, size, spatial, and temporal* concepts and terms.

Examples:

- Child discusses which shoe is the longest and which is the shortest.
- Child compares the apples and determines the red is sweeter than the green.
- Child steps in a puddle and states, “ My shoes are dirty, and yours are clean.”
- Child says to a friend, “In baseball you throw the ball but in soccer you kick the ball.
- Child hears birds chirping on a nature walk and states that it sounds like the class’s pet bird.
- Child looks at her glass of milk and others’ glasses in the classroom and states, “I have less 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 same in two books.
- Child indicates that his friend is taller than he is.
- Child describes how the plant needs water to grow, but rocks are different and do not.

COMPREHENDING (UNDERSTANDING & ACTING)

Comprehending is when a child **remembers, recalls from memory, understands information AND uses/acts upon** the information. Children use or act upon information verbally (e.g., asking and answering questions, telling) and non-verbally (e.g., following directions, matching, imitating).

Examples:

- Child answers questions about what happened to the puppy in the story read during snack.
- Child understands he/she has to wait his/her turn.
- Child hugs a friend who is crying.
- Child walks around the structures being built on the floor with blocks instead of walking through the structures.
- During a game of Simon says, the child stands when Simon says, jumps when Simon says, and twirls when Simon says.
- Child remembers to put the words in the correct order when commenting on the roles each child will play while pretending to grocery shop.
- Child chooses between 3 song options when asked by a teacher, “Which song do you want to sing today?”
- Child moves his/her name card to “Here Today” upon entering the classroom.
- After the teacher demonstrates, a child shows a friend how to blow bubbles while on the playground.
- Child identifies the topic of the story read.
- Child states why her friend is crying.
- Child says, “I know my ABC’s”.
- After reading a story, the child places yellow cards with pictures from the story in the order events had occurred and then walks along the “yellow brick road”.
- Child follows directions to stretch out before running around the gym.
- Child asks where to find the book about unicorns that the class had read last week.
- Child continues to rotate pieces of a puzzle until they fit properly.

CREATING (GENERATING)

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 taking something that exists and purposefully changing how it appears to be used. Children create by **extending** and **modifying**, not by directly imitating or recreating something that already exists.

Examples:

- A group of children introduce the rules and materials to a new game they created.
- Child makes up words to a song.
- Child suggests a new use for plastic bottles.
- Child constructs a new sign to indicate that it is playtime.
- Child generates new ideas for activities to add to the classroom schedule.
- Child uses the buckets containing the outside balls to build a fort.
- Child composes a book entitled “My Favorite Dinosaurs”.
- Child describes an idea for helping a classroom friend in need.
- Child creates a chart to record the number of times he/she bounced a ball.
- Child independently creates a pattern of things to cut with and things to draw with (e.g., places a pair of scissors, then a crayon, scissors, then a crayon, scissors etc.).
- After the teacher says, “She sells sea-shells on the sea-shore”, the child says, “Try saying, ‘She sows seeds’ three times fast.”

INQUIRY (EXPLORING)

Inquiry is when children demonstrate the ability to **explore** topics, situations, materials, and/or experiences using multiple senses. Inquiry doesn't require a clear problem to solve but rather actions taken to investigate, build from, and/or learn more about.

Children demonstrate inquiry by **observing, gathering** (e.g., asking “wh” questions, asking “how” questions, requesting information), **documenting, interacting, searching, and analyzing**.

Examples:

- Child says, “I wonder what will happen if I mix red and blue paint.”
- Child uses a magnifying glass to inspect the bug crawling on the sidewalk.
- Child takes an old radio apart to see what it looks like inside.
- Child asks, “How do clouds move across the sky?”
- Child observes how different plants have differing needs (sun vs. shade).
- Child asks, “Why is the ant hill bigger today than it was yesterday?”
- Child records the number of fish in the tank.
- Child asks each of the other children what they hope they'll have for lunch.
- Child asks, “Where is Sam today?”
- Child digs through the toy box in search of an extra shovel.
- Child squats down to see what might be living under a pile of rocks.
- Child says, “I think it will break if you drop it.”
- Child gathers all the books and sorts the hard covered books from the soft covered books to see which they have more of.

ONE-TO-ONE CORRESPONDENCE (PAIRING)

One-to-one correspondence is the ability to **pair** a label/name, symbol, or action of one object, person, and/or event to another.

Examples:

- Child names each animal in the book.
- Child says, “I go first, then Sam, then Kennedy.”
- Child gives each classmate a cup for water.
- Child counts the number of cars on the rug, “One, two, three, four, five, six.”
- Child selects each item from a recipe list and adds the ingredients one at a time to a bowl to make soup.
- Child indicates that play and clay have the same ending sound.
- Child pairs the written word zebra with a picture of the animal.
- Child chants and claps the syllables in classmates’ names.
- Child identifies the emotion each character is feeling while reading.
- Child matches the pitch of an “A” on a keyboard and a guitar.
- Child selects a buddy to read with when directed to “find a friend”.
- Child names each animal in a story
- Child hangs their backpack on a hook.

PROBLEM SOLVING (FINDING SOLUTIONS)

Problem solving is the ability to **address a situation** by completing one or all of the following steps: *1) recognizing the problem, 2) thinking of possible solutions, 3) carrying out solutions, and/or 4) evaluating the outcome.*

- Examples:
- Child completes a task by asking for help.
- Child gets more chairs when there are more children than seats.
- Child determines how many cookies they would have if given three more.
- Child determines the meaning of unfamiliar words using pictures on the page.
- Child identifies why using a piece of paper will not soak up spilled juice like a paper towel.
- Child proposes a few options when deciding who gets the toy next.
- Child places the large blocks on the bottom of the structure so it doesn't fall.
- Child states several reasons why children are getting hurt while playing and generates ideas of how they can help keep the classroom safe.
- Child identifies the number of pumpkins on the table when one is added.
- Child adds a cup for a child who joined snack.
- Child determines that next time he/she might want to pour water into the class pet's water bowl using a funnel so that less is spilled.
- Child says, "I'll try to jump higher.", when reaching for a toy on a top shelf..
- Child tells her friend "Keep your eye on the ball and swing slower."
- Child steers a trike around obstacles on the playground.

REASONING (EXPLANATION)

Reasoning is the ability to **make inferences, make predictions, give explanations, and/or draw conclusions**. Children also demonstrate reasoning when they **understand why** certain outcomes result from certain actions or thoughts.

Examples:

- Child *explains* why he/she doesn't need to wear a hat outside today.
- Child *infers* that the lack of rain is because there are fewer cloudy days on the graph.
- Child *realizes* that if he/she put one more block on the tower, the whole thing will collapse.
- Child *suspects* that if more children join the sand table, there will not be enough sand sifters for everyone.
- Child *describes* how the cake batter will change when it is cooked because of the heat from the oven.
- Child *concludes* that animals have to live in different habitats and *explains* why.
- Child *explains* the order in which the puzzle should be put together.
- Child *says*, "The snowman will melt because of the heat!", when asked what will happen if the snowman is brought from the playground into the classroom.
- Child *determines*, "I'm the tallest boy in the class because I can see the tops of your heads."
- Child *foresees* that the other children will need help, so he/she runs to open the door so they can carry in the play equipment.

SEGMENTING & BLENDING (WHOLE TO PARTS AND PARTS TO WHOLE)

Segmenting and Blending is the ability to **separate, split up, or disassemble** a *whole into portions or parts* and/or **put together, combine, mix, or assemble** *portions or parts into a whole*.

Examples:

- Child separates each sound or syllable in a word by saying h/o/p for “hop” or ham-bur-ger for “hamburger.”
- Child distributes a larger set of objects into two smaller sets.
- Child separates words with spaces to make a sentence.
- Child combines red and blue paint to make purple.
- Child mixes flour, eggs, water, and blueberries to make muffins.
- Child puts together or takes apart a puzzle.
- Child says, “Five.”, when asked how many does $2+3$ makes.
- Child cuts pizza into 4 pieces for each peer.
- While writing a note to his Grandma, child puts the letters A L E X together to spell his name – Alex.
- Child breaks apart Lego pieces.

SEQUENCING (ORDERING)

Sequencing is the ability to **imitate, re-create, exchange, or extend** patterns and/or series. Children also sequence by following/giving **multiple step directions**.

Examples:

- Teacher asks a child to count to 5, child responds by saying, “1,2,3,4,5.”
- After a model, child claps loudly, then claps softly, then claps loudly, then claps softly, etc.
- Child organizes the largest plate on the bottom and then stacks plates of decreasing size on top.
- Child arranges peers’ name cards in the order they will play the game.
- Adult tells a three-part story and child retells the story by putting photographs in correct sequence.
- Child follows a picture schedule with three icons showing removal of coat, placement of lunchbox on counter, and selection of a toy.
- Child answers “Today is Monday and it’s cold outside” to an adult’s direction to identify the day of the week and the weather outside.
- Child adds three colored blocks to the pattern created by a peer.
- Child says, “I’ll go first, you can go second, and you can go last.”
- Child says, “I will play in the kitchen, then in the blocks, and then in the library.” Child then follows through with the plan.

SYMBOLIZING (REPRESENTING)

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.

Examples:

- 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 tells a story about making a snowman and draws a picture and writes “snow” under the picture with his own symbols for snowman.
- 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 says, “It is my turn.”
- Child creates a sign to place on his art project to show that he is still working on it.
- Child draws a picture of the different colored leaves on the tree.
- Child stacks blocks to measure how tall he is.
- Child picks up a cube block and says it looks like a box.
- Child pretends to be Goldilocks while acting out the story.
- Child uses letters and shapes to “write” down each child’s lunch order.

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