

## CORE SKILL: THINK

# Active Exploration, Inquiry, & Reasoning



### What You Need to Know

Infants are naturally curious, active learners who love to explore their environment. They use their exploration, inquiry, and/or reasoning skills whenever they observe, experiment, and investigate something in order to better understand it. For example, an infant may be using these skills when they look and point to objects, use their body to explore (e.g., scoot closer to something that interests them), and try to solve problems (e.g., reach for a toy that fell). You can support infants' development of active exploration, inquiry, and reasoning skills by offering them plenty of opportunities, time, and space to explore and interact with their surroundings.

### Things to Consider

Infants love repetition – this not only helps them figure out how things work but also builds their understanding of cause-and-effect. For instance, playing hide-and-seek games repeatedly helps infants learn and develop the important concept of object permanence – the idea that objects exist even when they can't be seen. For this reason, it is important to give infants the opportunity to do things over and over again.

### Development of Active Exploration, Inquiry, and Reasoning

Between birth and 9 months, infants may:	Between 8 and 18 months, infants may:
Examine people and objects using their senses and a variety of actions (e.g., mouthing, touching, shaking, or dropping).	Actively explore people and objects to understand self, others, and objects (e.g., trying to get an adult to do something or trying different ways to reach a toy).
Repeat or get an adult to repeat an action to make things happen again (e.g., dropping a toy repeatedly and waiting for an adult to pick it up).	Engage in purposeful actions that cause things to happen (e.g., make splashes in a puddle, roll a ball to knock over a tower).
Use their own actions or movements to solve simple problems (e.g., rolling to the side to reach an object, or kicking to make something move).	Try different solutions to everyday problems until discovering one that works (e.g., may try the same strategy multiple times even if it is not working).

### Setting the Stage

Activities and materials that support the development of active exploration, inquiry, and reasoning skills:

- ◆ Provide objects that are appealing to infants' senses, and encourage them to explore (e.g., toys that have different colors, shapes, sizes, textures, and/or sounds).
- ◆ Provide objects and materials that encourage infants to discover how things work (e.g., ball to roll, rattle to shake, or toys with buttons to push).
- ◆ Explore nature and/or living things (e.g., class pet, water, leaves, etc.).
- ◆ Encourage hands-on participation. Set up opportunities for children to feel, smell, see, explore, and even get messy!



# Intentional Teaching Practices to Develop Active Exploration, Inquiry, & Reasoning

OBSERVE	<b>OBSERVE</b>  Take time to notice what sparks infants' interests and whether they follow up on those interests. Do some seem interested in moving and interacting with objects while others prefer to observe and/or point to the world around them? Consider who would benefit from extra support.
FOCUS	<b>Narrate Curiosity and Exploration</b>  Encourage infants' attempts to explore and understand the world around them by holding them, sharing their emotion, modeling, or mimicking. Explicitly create opportunities for infants to explore with objects in new ways. Be sure to narrate their exploration efforts. For example: <ul style="list-style-type: none"><li>◆ When playing, mimic and exaggerate an infant's surprised face and say, "Wow! You pushed the button and the music started playing! Let's do it again."</li><li>◆ Hold a piece of an orange under the infant's nose so that they can smell it. You might say, "Smell this! We smell with our nose (<i>and point to your nose</i>)."</li><li>◆ Offer infants the chance to add water to the sponge they are playing with. "Did you know that we can add water to this sponge and then squeeze it to make the water come out? Let's try it!"</li><li>◆ Model exploration during lunch: "I'm peeling your banana like this (<i>make sure the infant is watching and use exaggerated movements</i>). Let's keep peeling it together!"</li></ul>
FOCUS	<b>Narrate and Encourage In-The-Moment Observations</b>  Focus infants' attention on the environment around them by explicitly narrating <b>observations</b> . <ul style="list-style-type: none"><li>◆ <b>Model your own observations.</b> Say exactly what you see/observe in the moment.<ul style="list-style-type: none"><li>○ "I see that you are using your hands to touch the parts of your face. Now you are touching your nose!"</li></ul></li><li>◆ <b>Comment on infants' observations.</b> If they look at/point to an object, label it and add information.<ul style="list-style-type: none"><li>○ "I see you looking at the rainbow ball. Let me go get the ball so that we can play with it."</li><li>○ While pointing at a drum, say, "That toy is a drum. You can use the drumsticks or your hands to make cool beats."</li></ul></li></ul>
SCAFFOLD I	<b>Promote Child Autonomy</b>  Focus on allowing time for infants to explore and arrive at their <i>own</i> conclusions. Don't rush them. For instance, let infants try moving their bodies until they reach their blanket, push the bottom of a toy over and over, or stack the blocks. Even though they may take longer, or it may seem that the children aren't 'getting' it, let things unfold and see where things go. Infants need time to puzzle, wonder, try, and repeat.
KEEP IT GOING	Consider what you learned from observing infants as well as their reaction to your Focus and Scaffold. Find ways to intentionally incorporate these strategies throughout the day.

