

# CORE SKILL: REGULATE

## Cognitive Flexibility



### What You Need to Know

Cognitive flexibility is being able to adjust one’s own thinking to meet the demands of the environment. It includes thinking of a problem in a new way *and* being able to let go of old ways of doing or thinking about things. Have you ever been driving to work only to find your road is blocked? It takes just a moment for you to use your cognitive flexibility to shift your plan and find a new way to work. Or maybe you remember a time when a co-worker suggested a new way to handle a problem and you were able to try a new approach. There is great growth in cognitive flexibility in the preschool years. For example, consider a sorting activity where children are asked to sort by *color*, then later asked to shift to sort by *shape*. A 3-year old will likely stick to the original “rule” and continue to sort by color, where a 4-year old will be able to shift their focus from color to shape. Increases in preschoolers’ cognitive flexibility are closely linked to current and later school success. You can support this growth by providing a stable and structured routine and environment and prompting children to approach new tasks and try new ways of doing or seeing things.

### Things to Consider

Here are some examples of cognitive flexibility (or lack of) affecting a situation.

- ◆ A child is excited to play “store” with their peers during Choice Time. They rush to get the materials and call to their friends, but the cash register is broken, and the other children don’t want to play “store.” A child showing cognitive flexibility would be able to shift gears and play something else. By contrast, a child struggling with flexible thinking in that moment may insist on playing anyways or become upset and not play at all.
- ◆ A child who is a dual language learner. When their mother comes to visit the classroom, their cognitive flexibility allows them to shift back and forth between languages when they’re talking with their classmates or with their mother.
- ◆ A child is putting together a Lego set. When a piece doesn’t fit, they keep pushing and pushing, finally yelling and tossing it aside. If they had been able to think flexibly, they could have tried a different direction or a different piece.

### Development of Cognitive Flexibility

Between 36 and 48 months, children may:	Between 48 and 60 months, children may:
Demonstrate flexibility, or the ability to switch gears, in thinking and behavior when prompted by an adult.	Demonstrate flexibility in thinking and behavior without prompting at times.
	Respond consistently to adult suggestions to show flexibility in approaching tasks or solving problems.

### Setting the Stage

Materials and activities that support the development of cognitive flexibility:

- ◆ Problem-solving challenges: Provide a slightly difficult task or pose a problem and challenge children to come up with their own solutions and continue to try ideas out until something works. For example, “We planned to draw with chalk outside today but it’s raining. I am feeling upset. What can we do about this?”
- ◆ Games that prompt children to shift their focus and attention (e.g., freeze tag or Simon Says) or games where you change the rules (e.g., play a familiar game in a totally new way).
- ◆ Songs/dancing with rules. For example, prompt them to dance a certain move; after a while, shift to a new action. Similarly, change the words or melody to a familiar song for children to sing or hum along to.
- ◆ Pretend play: Ask children to shift roles/play scenarios (e.g., “My dog needs a doctor! Can you be the doctor?”).
- ◆ Sorting activities. For example, sort animal counters by color, then switch to sort by type.
- ◆ Cognitive flexibility can be challenging for children who prefer rigid, consistent routines. Support children’s cognitive flexibility when changes are made in their routine by providing ample warning before changes occur, explain why a routine must change, and discuss how it will be okay.



## Intentional Teaching Practices to Support Cognitive Flexibility

OBSERVE	<b>OBSERVE</b>  Take time to observe children’s cognitive flexibility. When are children flexing their mental muscles to approach a task or solve a problem in a new way? Are there times of the day when children have trouble “shifting gears?” Where do individual children differ in their skills to adapt to a change in the classroom? How do children’s emotional states affect their cognitive flexibility (intense emotions reduce children’s capacities to be flexible in their thinking)?
FOCUS	<b>Narrate Cognitive Flexibility</b>  Narrate children’s experiences with cognitive flexibility. <ul style="list-style-type: none"><li>◆ “You are feeling frustrated because we usually go outside after lunch and today we can’t. It’s tough when things change. You are afraid we won’t have any fun.”</li><li>◆ “I see you are hitting the same button. You know it’s worked on other games. It’s not working on <i>this</i> game, so now you are trying something new by checking the power switch.”</li></ul> Also, model and narrate your own cognitive flexibility. <ul style="list-style-type: none"><li>◆ “I thought for sure I could use this cardboard to make a boat, but it sank. I’m going to have to come up with a new plan.”</li></ul>
SCAFFOLD I	<b>Prompt Children to Shift Their Thinking</b>  As children work or encounter difficulty, encourage them to think of things in a new or different way: <ul style="list-style-type: none"><li>◆ “What do you think will happen if you...”</li><li>◆ “Hmm, I wonder what you could do to that puzzle piece to see if it will fit?”</li><li>◆ “What else can we try?”</li></ul> If children need additional support, consider providing choices or picture cards of possible solutions for them to point to or discuss.
SCAFFOLD II	<b>Adapt the Activity to Encourage Cognitive Flexibility</b>  While being careful not to interrupt, or take over, look for natural opportunities to modify an activity in a way that requires children to shift their thinking: <ul style="list-style-type: none"><li>◆ <b>Games:</b> While dancing like animals, tell children to shift their motions (e.g., eat a banana instead of swinging arms like a monkey). Or outside, challenge them to run to the fence, then hop back etc.</li><li>◆ <b>During pretend play:</b> “I’m a farmer. Now I’m ready to take my vegetables to the market. Here I go to the market. Do you want to come to my market? Give me a thumbs up if you want to join!”</li><li>◆ <b>Increase the challenge or offer a problem:</b> “How can we make the water go <i>this</i> way?”</li></ul>
KEEP IT GOING	Consider what you learned from observing children as well as their reaction to your Focus and Scaffolds. Find ways to build the activities from Setting the Stage into your regular routines.