

CORE SKILL: REGULATE

Working Memory



What You Need to Know

Working memory is a child’s ability to remember and use relevant information while in the midst of a task. It is the information that children can hold in their minds *in the moment* that helps them complete a task (e.g., follow instructions or play a game) or remember rules (e.g., use walking feet). Can you remember a time when you forgot your list at the grocery store? You were using your working memory as you tried to remember what was on your list while working to complete your shopping. It is important to understand that toddlers are **just beginning** to develop their working memory skills. It’s very hard for toddlers to keep a rule or instruction in mind, especially in a busy classroom. The best way to help them be successful is to make sure that your expectations are in line with what children can do, and to understand that often if they don’t follow through, it is because they have not developed the working memory skills needed to remember what to do in the moment.

Things to Consider

Below is an example of a child trying to follow their teacher’s instructions that highlights how working memory skills impact their performance.

- ◆ Early in the year, a child’s teacher asks them to, “Go to the Block Center to get a car.” On the way, they notice a new truck. They sit down to play, become completely engrossed in the truck, and *forget* all about getting the car.
- ◆ Later in the year, their teacher asks them to, “Go to the shelf and bring back a book.” Again, they spot a material that piques their interest on the way – their favorite doll. But this time, they’re able to stop for a moment, give the doll a hug, and then go get the book.

In the second example, this child’s working memory skills have developed enough to let them keep the instruction, “get the book,” in their mind, even though they became interested in the doll.

Development of Working Memory

Between 9 and 18 months, children may:	Between 18 and 36 months, children may:
Show increasing ability to attend to people, objects, and activities in order to extend or complete an activity, or to join others in a common focus.	Maintain focus and attention on a simple task or activity for short periods of time.
	Shows increasing ability to stay engaged when working towards a goal or solving a problem. Often tries different strategies until successful.

Setting the Stage

Materials and activities that will support the development of working memory:

- ◆ Use graphic organizers, visuals, or charts to help children remember chunks of information (e.g., what they found out about snakes, how many items rolled, what tasks have to be completed).
- ◆ Movement games: play games that require children to remember a movement that is associated with a sound or sign (e.g., flap their wings when you show a bird, or crawl when they see a dog).
- ◆ Imitation games (e.g., play “Simon Says” building up to 2 or 3 step directions).
- ◆ Memory or matching games: games that require children to match items or search for a certain item (e.g., “Can you find a baby kitten to match this mommy cat?”).
- ◆ During dismissal, help children talk to their parents/caregivers about what they did in school today. Provide visuals from your visual schedule, materials/artifacts from activities, and/or pictures you may have taken throughout the day to support their recall.
- ◆ Recall events: periodically pause and ask children to recall their favorite part of a story, activity, or event in the classroom (e.g., “We are finishing our nature walk. What was your favorite part? I liked seeing the colorful leaves.”).
- ◆ Use First-Then language to help simplify instructions; pair them with visuals and/or First-Then board.



Intentional Teaching Practices to Support Working Memory

Monday OBSERVE	OBSERVE Watch closely to see how much information children are holding in their mind during a task. Are they able to remember simple classroom rules or follow simple directions with some support? Do they get distracted and leave their task, or are they able to go back to it? Which children could benefit from extra support? Much of supporting working memory lies in making sure your expectations are reasonable. Are there activities or transitions where more than 1-2 children seem to struggle to stay on task? This is likely an indication that the working memory demands are too great for children's skill level.
Tuesday FOCUS	Narrate Use of Working Memory Draw attention to how children can use strategies for keeping things in mind. <ul style="list-style-type: none">◆ Self-talk: "You are saying 'truck-truck-truck.' That's helping you remember that you are looking to find a truck!"◆ Using organizers or charts: "We are using this recipe card to help us remember all of the steps that we need to follow to make applesauce. This recipe helps us make sure that we don't forget anything. And, it helps us do the steps in the right order."
Wednesday SCAFFOLD I	Give Simple and Clear Commands Children will be more successful if the amount of information that they are expected to remember in the moment is reasonable and limited. For example, it is helpful if instructions are simple (one thing at a time) and clear (tell a child exactly what to do instead of what not to do). Pair directions with visual reminders or cues to provide additional support. <ul style="list-style-type: none">◆ "Go put your shoes on," (specific), rather than, "Let's get ready to go outside," (vague).◆ "Drop your paint cup in the trash," or "Put it here (<i>pointing</i>)," (simple), rather than, "Put your cup in the trash, then put you're your brush in the sink, and go sit down," (too many steps).
Thursday SCAFFOLD II	Use Visuals and Cues Visuals serve as external reminders as children develop their working memory. They help children remember what to do in the moment or break down multi-step activities. <ul style="list-style-type: none">◆ Picture charts/schedules show children the steps in an activity/routine (e.g., cooking, steps for washing hands, order of activities).◆ Signs can remind children what to do in the moment (e.g., sign showing, "Sit," or, "Shh"). Remember, visuals and cues will only be effective if you regularly refer to them. Just creating them and hanging them in your classroom isn't quite enough to support children in-the-moment.
Friday KEEP IT GOING	Consider what you learned from observing children on Monday as well as their reaction to your Focus and Scaffolds. Find ways to build the activities in the Setting the Stage into your regular routines.