

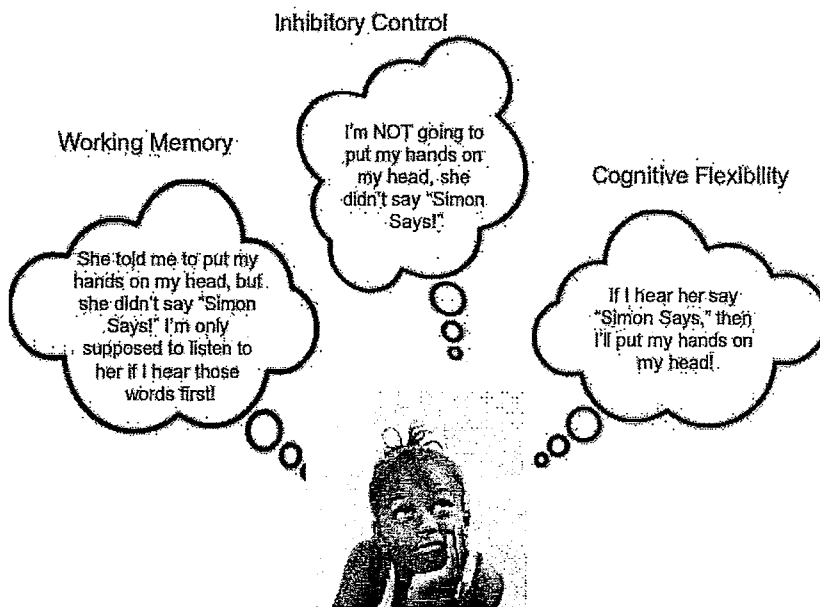


Promoting Executive Function in our Preschool Classroom

Our preschool program incorporates a curriculum designed to boost a set of skills called **executive functions** that are particularly important for success in school. Many preschool curricula focus on learning numbers, letters, and other classic academic content to get ready for school. While we certainly promote those important skills, research has shown that executive functions, such as self-control, are an important aspect of school readiness as well. To do well in a kindergarten classroom, children need to be able to control their attention and behavior, listen to the teacher, follow instructions, wait their turn in line, sit in a circle, work in a small group with other children, ignore distractions, and stay calm. These all require executive function or "EF" skills.

To promote EF skills in our classroom, we use a curriculum that supports and targets three critical aspects of executive function: working memory, inhibitory control, and cognitive flexibility. Many common games and activities for children require skills like these. One example you are likely familiar with is the game of Simon Says, where a child is supposed to follow a command, but *only* when a leader utters the phrase "Simon Says," i.e. "Simon Says touch your head." If, however, the leader doesn't say "Simon Says," (and instead just says, "Touch your head,") then the child is supposed to remember NOT to follow that command. It takes self-control for a child to stop him or herself from doing what the leader just said!

Playing the game correctly draws on the three central components of EF. Children engage their **inhibitory control skills** when they remember NOT to follow the leader's instructions if they don't hear the phrase "Simon Says." To activate that control, children must also be able to remember the rules of the game (**working memory**). **Cognitive flexibility** is required for the children to successfully change their behavior according to the different sets of rules (i.e. follow the leader's instructions or not, depending on the presence of the phrase "Simon Says").



Some of the games and activities in our classroom have been designed to promote our student's developing EF skills. You'll see the teachers leading games like "Bear, Dragon" (an adapted version of Simon Says), singing EF focused songs like "BINGO,"

and playing EF card games like Memory and Blink. In addition to the specific games and activities we have adapted to support EF skills, our teachers use specific language to give any activity or interaction an EF “boost.” Below are some tips for how you can support our program and help foster the growth of our student’s developing EF skills.

Use language to encourage the students to use their EF skills:

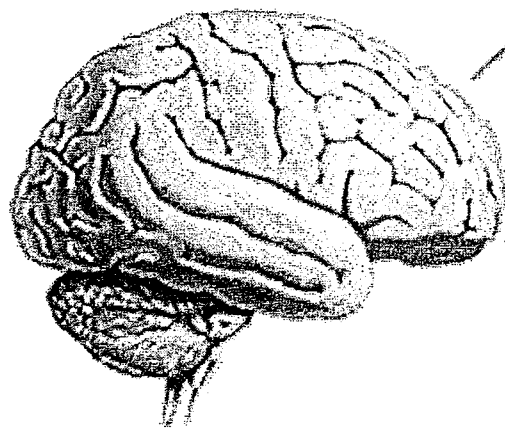
1. **Ask open-ended questions:** Open-ended questions do not have one correct answer; they are questions that invite elaborate responses. “What color is this?” is a closed-ended question, while “What do you think?” is an open-ended question that allows children to engage their EF skills.
2. **Encourage self-reflection:** Encouraging children to reflect on their own actions and answers allow them to engage their working memory and cognitive flexibility skills. Asking, “How did you know that was the answer?” provides an opportunity for a child to model their own thinking for their peers. Asking prompting questions to elicit a response like, “What did you do first?” or “What came next?” encourages the children to engage their EF skills.

Give every activity an “EF boost” by focusing on the following concepts:

1. **Model your own thinking:** Explain how you arrived at an answer or solved a problem. Make it simple and clear so that children can start to organize their own thinking and problem solving!
2. **Problem solving:** Any opportunity for students to problem solve is an EF boost! Simple open-ended questions like “What do you think?” “What do you guess might come next?” and “What can we do to fix it?” encourage students to practice their EF skills.
3. **Support cognitive flexibility:** Switch the rules to games when you can, or have students do the “opposite” once they have a firm grasp of the traditional rules. Ask open-ended questions and encourage children to come up with more than one answer to a problem or question.
4. **Support working memory:** Make exaggerated mistakes and let children correct you! It’s a fun and engaging way to have the students remember and verbalize rules for games or classroom behaviors. Asking children about experiences they have had or things they have done recently is another way to engage their working memory skills.

5. **Support inhibitory control:** Any activity that requires students to take turns is an exercise in inhibitory control! Set clear expectations, reassure students that they will have multiple turns, and reward patience and turn taking with praise and positive reinforcement.

EXECUTIVE FUNCTION



INHIBITORY CONTROL

- Resisting an automatic response
- "I really want to eat that donut, but I'm on a diet so I will resist."

WORKING MEMORY

- Keeping information in your mind
- "She just told me her phone number but I don't have a pen so I'll repeat it over and over in my mind until I find one."

COGNITIVE FLEXIBILITY

- Switching between different rules or ways of thinking
- "We usually have math after recess, but this substitute teacher wants to do things differently, so I'll do it this way."

There are additional activity-specific EF prompts around our classroom for you to use as a resource when you interact with the children. Please feel free to ask our teachers if you have any questions about what's happening in our classroom!

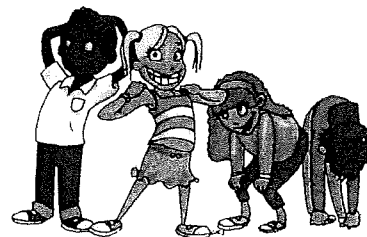
FREE Games that Train EF

HEAD, SHOULDERS, KNEES & TOES

Goal: to add increasing challenge to a classic game.

How to Play:

1. Sing the regular song and do the actions.
2. Change the volume. Try doing it quietly and loudly.
3. Change the speed. Try doing it slow and fast.
4. Switch the order of the actions, for example "Knees, head, shoulders, toes".
5. Make it more challenging by combining different ways to play. For example, play quiet and fast with actions in a mixed order.

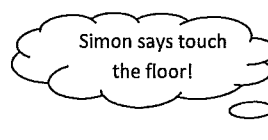


SIMON SAYS!

Goal: to distinguish between rules of when and when not to do an action.

How to play:

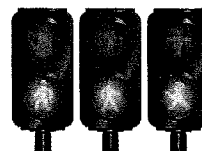
1. Line up the group across from you.
2. Tell the players that they should all obey you if you first say the words "Simon says."
3. Tell them that they are out of the game if they follow an order that doesn't begin with "Simon says," or if they fail to do what Simon says to do.
4. Begin by saying something like, "Simon says, put your hands on your head."
5. Look to make sure everybody has put their hands on their heads. Continue giving orders.
6. Mix it up and say something like, "Raise your right hand," without the phrase "Simon says." Call out the players who raise their hands.
7. If your child is having a hard time following along, use a happy voice for the Simon Says commands and a grumpy voice for the commands s/he should not do.
8. Play until one person is left. This is the winner. Let the winner give the commands for the next round



RED LIGHT / GREEN LIGHT

Goal: to tap the stoplight on the shoulder without being seen.

How to play:

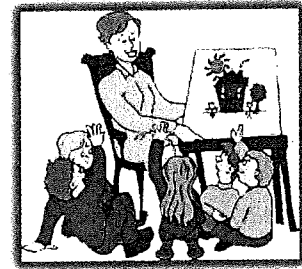
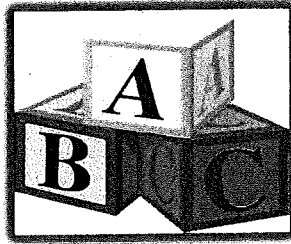
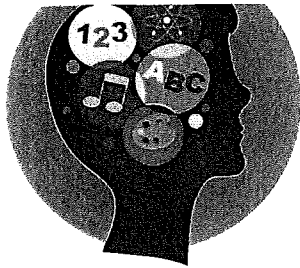


1. Choose one player to be the stoplight. The other players line up at the other end of the room or yard. (This game can be played with running or walking rules. Indoors, walking quietly but quickly works well. Outdoors, with room to run on grass also works well. Either way, children will learn that going too fast can make it hard to stop in time!)
2. The stoplight turns her back to the others and says "Green light!" This is the GO signal for the players. They can move toward the stoplight.
3. The stoplight calls out "Red light!" and then turns around. This is the STOP signal. All players must stop and freeze before the stoplight catches them (sees them) moving. If a player is spotted moving, they have to return to the starting line.
4. The game is repeated until one player touches the stoplight on the shoulder during a "green" light. Then that player becomes the stoplight.

Take Home Messages

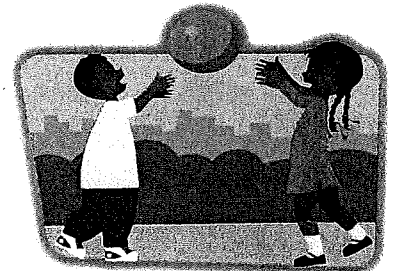
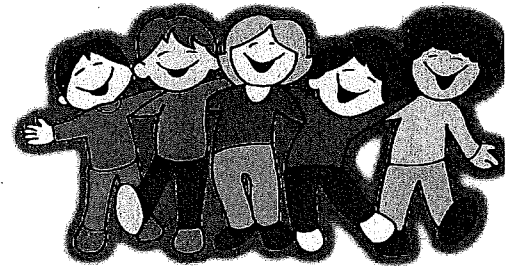
Why is EF important to know about?

- Teachers say EF skills are very important for kindergarten
- Few parents know how important EF is for school readiness and success
- Practicing EF is exercise for the brain



What's so special about EF skills?

- EF skills are key building blocks for doing well in school
- EF skills are important for relationships with parents, teachers, and friends
- Listening, paying attention, following instructions, concentrating, taking turns and controlling behaviors are essential for adults too!
- EF skills are “undercover” skills: They often go unnoticed



**TOP
SECRET**