

# Executive Functions



**Executive functions** are brain-based cognitive skills that facilitate critical thinking and self-regulation. Executive functions call upon the prefrontal cortex of our brains to help with goal-setting and decision-making. Executive functions include a set of related skills that help prioritize, regulate, and orchestrate an individual's thoughts and behaviors. The executive functions help individuals manage their feelings and actions, monitor their behaviors, and attend to their experiences from the past and the present.

## Executive functions help with:

- “What to do” skills, which include: starting tasks, paying attention, persevering, and remembering.
- “How to do” skills, which include: planning, organizing, shifting strategies, and managing time. They also help with managing perceptions, thoughts, actions, and social interactions.

Psychologists have described dozens of definitions for executive functions, including those by Russell Barkley, Thomas Brown, and Peg Dawson and Richard Guare. The consensus is that executive functions orchestrate various brain functions that integrate a person's perceptions, experiences, cognition, and memories toward goal-directed behavior.

We have chosen to modify the model described by Peg Dawson and Richard Guare as the basis for our descriptions of executive

functions. We believe that their description is an excellent fit for understanding how children use executive functions in their day-to-day lives. It is important to note that this list of executive functions is neither comprehensive nor categorical. For example, specific skills seen in planning may also be described in organization. In addition, examples of executive dysfunctions such as problems in completing homework, often involve many executive function skills, such as time management, perseverance, and sustained attention.

## The 12 Executive Functions:

- **Flexibility** : The ability to adapt, improvise, and shift approaches to demands.
- **Goal-directed Persistence** : The ability to persevere with tasks that require sustained effort (Part of the Thinking skill of Focus).
- **Metacognition** : The ability to self-monitor and observe (Part of the Thinking Skill of Self-Awareness).
- **Organization** : The ability to use a systematic approach to achieve a goal.
- **Planning** : The ability to develop a set of strategies in order to accomplish a goal.
- **Regulation of Affect** : The ability to manage one's feelings effectively for decision-making and task completion (Part of the Thinking Skill of Self-Control).
- **Response Inhibition** : The ability to stop or delay an action rather than display impulsive behavior (Part of the Thinking Skill of Self-Control).
- **Social Thinking** : The ability to respond appropriately to social conditions (Part of the Thinking Skill of Self-Awareness).

- **Sustained Attention** : The ability to maintain one's focus and attention in the presence of distractions (Part of the Thinking Skill of Focus).
- **Task Initiation** : The ability to initiate a task without procrastination (Part of the Thinking Skill of Focus).
- **Time Management** : The ability to respond to things in a timely fashion.
- **Working Memory** : The ability to remember something while performing an activity.

To learn more about how you can help your child improve any of these skills, please visit our resource pages on the individual executive functions.