



Cognitive Skills: What Are They And Why Do We Need Them?

Auditory Processing: to process sounds. Helps one hear the difference, order, and number of sounds in words faster; basic skill needed to learn to read and spell; helps with speech defects.

Auditory Discrimination: to hear differences in sounds such as loudness, pitch, duration, and phoneme.

Auditory Segmenting: to break apart a word into its separate sounds.

Auditory Blending: to blend individual sounds to form words.

Auditory Analysis: to determine the number, sequence, and which sounds are within a word.

Deductive Reasoning: inference in which the conclusion about particulars follows necessarily from general or universal premises; the ability to deduce.

Divided Attention: to attend to and handle two or more tasks at one time such as taking notes while listening and carrying totals while adding the next column without making errors. Required for handling tasks quickly or complete tasks with complexity.

Executive Processing: a constellation of several complex, inter-related mental operations or constructs including the allocation of attentional resources, working memory, planning, problem solving, response inhibition, self-monitoring and regulation, and the maintenance of mental sets.

Inductive Reasoning: to make generalized conclusions from particular instances.

Logic & Reasoning: to reason, plan, and think.

Long-Term Memory: to store information and fluently retrieve it later in the process of thinking.

Math Computations: to do math calculations such as adding, subtracting, multiplying, and dividing.

Numerical Concept: to understand the meaning of numbers and their relationship with other numbers and quantities.

Numerical Fluency: to quickly, efficiently, and accurately apply relationships between number concepts.

Planning: to prioritize information and organize processes into a logical, sequential order.

Problem Solving: to organize information, define the goal of inquiry, plan a series of sequential steps, and apply the steps accurately to satisfy the goal of inquiry.

Processing Speed: the speed at which the brain processes information. Makes reading faster and less tiring; makes one more aware of his or her surrounding environment; helps with sports such as basketball, football, and soccer and activities such as driving.

Selective Attention: to stay on task even when distraction is present.

Sensory Motor Integration: to have sensory skills work well with motor skills—i.e. eye-hand coordination.

Sequential Processing: to process chunks of information received one after another.

Short-Term Memory: ability to apprehend and hold information in immediate awareness and use it within a few seconds.

Sustained Attention: to be able to stay on task.

Visual Processing: the ability to accurately create, maintain, and analyze a visual representation or picture mentally. Helps one understand and “see” math word problems and read maps; improves the ability to accurately perform mental math and computations; improves reading and comprehension skills.

Working Memory: to retain information while processing or using it.