

# Executive Function skills develop over time

<b>Working Memory</b>	<b>Inhibitory Control</b>	<b>Cognitive Flexibility</b>
7-9 months: develops ability to remember that unseen objects are still there (toy hidden under a cloth); learns to put two actions together in a sequence (remove cloth, grasp toy)	6 months: Rudimentary response inhibition(able to not touch something instructed not to touch)	9-11 months: Develops ability to seek alternate methods to retrieve objects beyond directly reaching for what's in view
9-10 months: Can execute simple means-to-ends tasks and two-step plans; also able to integrate looking one place and acting (e.g., reaching) at another place	8-10 months: Begins to maintain focus despite distractions during brief delays in a task	2-5 years: Succeeds at shifting actions according to changing rules (e.g., takes shoes off at home, leaves on at school, puts on boots for rain)
3 years: Can hold in mind two rules (e.g., red goes here, blue goes there) and act on the basis of the rules	9-11 months: Able to inhibit reaching straight for a visible but inaccessible reward, such as a toy on the other side of a window, and will instead delay a moment to recognize the barrier and the detour around it	10-12 years: Successfully adapts to changing rules, even along multiple dimensions (okay to shout on playground, not okay in school, okay sometimes in theater rehearsal)
4-5 years: Comprehends that appearance does not always equal reality (e.g., when given a sponge that looks like a rock)	4-5 years: Reductions in perseveration (persisting with following a rule even when knowing that the rule has changed). Can delay eating a treat: also can begin to hold an arbitrary rule in mind and follow it to produce a response that differs from their natural instinct (sort colored cards by shape rather than color)	13-18 years: Continued improvement in accuracy when switching focus and adapting to changing rules
5-16 years: Develops ability to search varying locations, remember where something was found, then explore other locations (e.g., a game of Concentration or hiding a penny under one of three cups)	7 years: Perform at adult levels on learning to ignore irrelevant, peripheral stimuli (such as a dot on the side of a screen) and focus on the central stimulus (such as a picture in the middle of the screen)	Adult: Able to revise actions and plans in response to changing circumstances
Adult: Can remember multiple tasks, rules, and strategies that may vary by situation	10-18 years: Continues to develop self-control, such as flexibly switching between a central focus (such as riding a bike or driving) and peripheral stimuli that may or may not need attention (road signs and pedestrians vs. billboards passing houses)	
	Adult: Consistent self-control; situationally appropriate responses (e.g., resists saying something socially inappropriate, resists "tit for tat" response)	

Source: The Center on the Developing Child at Harvard University