

Jean Piaget, the psychologist credited with forming the theory of cognitive development in the late 1920s, created a list of mental limitations for a variety of age groups. Of course, every child is different, but Piaget's list offers a set of general touchstones. Use it to set appropriate expectations.

Third graders:

- Third graders can comprehend multiple aspects of a problem while solving it. That means they can have a math problem with both addition and subtraction and they won't get confused.
- Third graders can understand and manipulate symbols related to concrete objects. They know, for example, that the minus sign means subtraction and can use it when appropriate.
- Third graders are logical, even though they may still jump to crazy conclusions. You will be able to understand even their most imaginative ideas.
- Third graders should be able to reverse their thinking. They can trace the mental steps that drew them to a conclusion, and analyze those steps for flaws. This is a crucial development for math.
- Third graders are in the process of moving out of the egocentric stage, so they should understand that not everyone sees the world as they see it. But if there's still a hint of "the world revolves around me," don't worry. The more you expose them to other people, especially children, the faster they'll leave this stage.
- A third grader should be able to tell if there is a difference in number, length, volume and substance when comparing two objects. If they watch someone break clay into little pieces and then put the pieces back together, they will realize it's still the same amount of clay.

Fourth graders:

- Fourth graders can classify objects according to their many features, as well as classify them in a series according to one feature. For example, a fourth grader can organize toy cars from smallest to tallest, while at the same time grouping any similar colors together.
- Children of this age can comprehend multiple features in a problem, even while they're solving it. That means that even though a math problem has both addition and multiplication, they won't get confused by having more than one part to solve. This is also important in dealing with literature since they can understand why a villain could steal jewels, but also why it's wrong.
- Fourth graders are no longer egocentric. They finally understand that not everyone sees the world as they see it.
- Fourth graders should be able to reverse their thinking. This means that they can go through their mental steps backwards and check their conclusion. Whereas when they were younger, they could not recognize that they were wrong, even when the flaws in their argument were pointed out, by fourth grade this is no longer the case. Now they can recognize an error in judgment when someone points out a flaw in one of their steps.
- A fourth grader is able to recognize differences when comparing the physics of two objects. For example, they can see the difference between areas, and tell you that four one-inch square pieces take up the same amount of room whether put together or spread apart.

Fifth graders:

- Fifth graders can use deductive reasoning. On a multiple choice test when they don't know the answer, but know that answers A and C are incorrect, they'll realize that the solution must be B.
- Fifth graders are capable of considering multiple possibilities before starting a problem. They can come up with a hypothesis and reason out the consequences. For example, after they learn what different chemicals are composed of, they are able to guess what will happen if those chemicals are combined.
- Fifth graders can manipulate symbols dealing with abstract concepts as well as concrete objects. For example, they can understand that a statue of justice blindfolded symbolizes that justice should be blind, and only based on facts.
- Fifth graders can classify objects according to many features, as well as classify them in a series according to one feature. The child can organize toy cars from smallest to tallest, while also grouping any similar colors together.
- A child of this age can compare the physics of two objects. They understand the difference between areas, and can comprehend that four one-inch square pieces take up the same amount of room whether put together or spread apart.

Another psychologist, Benjamin Bloom, took things further. In the 1950s, he led a group of researchers in creating a cognitive learning guide that explained several levels of understanding. According to Bloom, everyone goes through a steadily deepening process of comprehension. But, people vary in how long it takes them to reach each level.

Each level is based on the one in front of it, similar to a staircase. Once your child learns something new, you can use Bloom's levels of learning as a guide for helping your son or daughter reach the next step of understanding. The levels of learning are:

- Level 1: Knowledge. This is when a child has already been taught a concept and just needs to remember it. For example, at this level he can recite a poem he memorized
- Level 2: Comprehension. The child understands what the concept means. Now she can tell you the main point of the poem.
- Level 3: Application. At this point your child can come up with examples of how the concept can be used. She can draw lessons from the story and determine how they can be utilized in real life. He can describe what type of mood people should be for this poem to have a good affect on them, since if someone's upset a sad poem probably won't make them happy. But he won't actually go out and read the poem to people.
- Level 4: Analysis. The child can break down each idea and think of it in ways that weren't introduced. Now she can look through the poem and search for themes. For example, she can determine that the color red symbolizes passion.
- Level 5: Synthesis. At this stage, a child will be able to apply the concept to new situations. He might mention the poem and what it means to people outside his classroom, at appropriate moments.
- Level 6: Evaluation. The child thinks about what she's been taught and weighs the pros and cons. She determines its merit. For example, she might decide if the poem was effective in creating a mood.

Keep in mind that Piaget and Bloom offer their own yardsticks, but no hard and fast rules. Still, taking a look at their guidelines can help you help your child. By giving your child a new concept that's not beyond her fourth grade mental limitations, you can watch her progress through the levels of learning. You can help her progress faster by asking questions that require not just knowledge or comprehension, but evaluation. For example, after reading a poem, you might ask your child, "How would *you* write a poem to express the same emotions and themes in this one?" rather than, "What's this poem about?" The second question requires only comprehension, but the first one makes the student think about what the poem contains, how well it expresses everything, and how he could make it better.