

a list you already have somewhere in your memory, either from information you learned or from your own experience with children. But the second question (the highest level, *create*) requires you to think in a new way—you likely don't have a ready-made answer and would engage in some higher-level, complex, and creative thinking. Similarly, when you ask young children basic recall questions, such as how many pigs are in the story of *The Three Little Pigs* or what color the wolf is, the answers to those questions don't require much thinking. If a child can't answer those questions, you might learn that she doesn't yet know numbers or colors, or that she wasn't interested in the story. But if you want to engage children in rich cognitive experiences and understand how they think, you might ask, "How would you describe the wolf?" or "How might the three pigs have built different houses if they were fish?" It can be challenging to develop and ask high-level questions ("If you could come to school any way you wanted, how would you get here? Why?") instead of lower-level questions ("How did you get to school this morning?"), but it is well worth the effort!

### What High-Level Questions Aren't—and Are

A high-level question is *never* a yes-or-no question ("Do you have a pet?"). It is never a question that has an obvious answer ("How many wheels does that car have?"). Nor is it a question that has only one answer ("How old are you?"). The answers to those kinds



of questions may demonstrate that children understand language, are paying attention, and can count or identify numbers, colors, or shapes, but the questions don't offer opportunities for children to think very deeply.

Creating a solid base of content knowledge is important—children need to remember information before they can understand it; they must understand it before they can apply it. But you want children's learning to be deeper and more complex. Asking questions that invite them to apply what they've learned or evaluate something encourages them to express their unique ideas. Consider the difference in responses given by a group of kindergartners when shown a mug and asked, "What is this?" Most replied that the object was a cup or a mug. But when asked what they liked about the mug, Julia responded, "It has so many blue swirly rings on it, and I love the big handle." And Juan said, "It's like my abuela's cup. She always puts cinnamon tea and honey in it when I visit her in Puerto Rico."

A high-level question is *always* a question that each child will answer in her own way, which indicates that she is using what she knows and what she's learning instead of just recalling rote information. If it is an effective question, a child will be excited to give you lots of details in her answer and is likely to use complex language. For example, when 3½-year-old Kerry was asked to describe her pet, she said that he was "really, really big and his tongue is always dripping and his tail bangs into the coffee table." And when a group of 4-year-olds was asked to describe the most important things about being 4, they came up with a long list of individual accomplishments and privileges, such as "You can stay up late to watch the moon" and "You can somersault and jump up to the sky."

High-level questions encourage children to expand their thinking and perspective on a subject. Fifteen students in a kindergarten class were asked to discuss this question in pairs: "If you could design a car that could go really fast, what would it look like and why?" The students engaged in long discussions, sketched their answers, and debated which of their car prototypes would be the best and why. Sarah said, "It would have jet-propelled giant engines and go faster than the Flash," and Jared said, "My car has wings and flies higher than a helicopter, and it is sparkly black and red with four hundred and twelve lights."

Most importantly, a high-level question is developmentally appropriate for the age and stage of the individual child. Most 3-year-olds are primarily concrete thinkers. This means that their speech and thinking are quite literal, often focusing on what is physically in front of them. Some 3-year-olds might not be able to answer the more complicated questions that older children can. Children begin thinking more abstractly around age 4 (Copple & Bredekamp 2006).

Teachers can address every stage of development, from the very concrete thinkers to the more developed abstract thinkers, by using Bloom's Taxonomy as a guide to engage in focused lines of questioning. For example, observing a group of 4-year-olds pretending that a stick they found outside is a fork or spoon, you might ask, "What kinds of foods would



be easy or difficult to eat with your new kind of utensil?” If you saw a 3-year-old using the same stick to poke holes or make a line in the dirt, you could say, “Tell me about the marks you are making on the ground.” Another approach is to simply make an observation about what you notice in children’s play to start a dialogue. For example, to the 4-year-olds you could say, “I see you created a new utensil!” Or, for the 3-year-old, “I see you making such interesting marks in the dirt with that stick.”

It’s up to you, the one who knows your students best in an educational setting, to decide which questions are appropriate for which children during a particular interaction. Although not all preschoolers and kindergartners will understand some of the higher-level concepts, you can still ask questions that prompt them to think in those ways. For example, instead of “How many carrots are in this bunch?,” you might ask Hannah whether she has enough carrots for the teacher, herself, and a nearby child to have one each, and how she knows the answer. If this is too difficult for the child, you might scaffold the learning by helping Hannah count the carrots and the number of people, and then ask whether there are enough for everybody to have one.

Children develop at different rates and may surprise you with their answers. Sometimes, scaffolding these questions by pairing children up or asking questions in small group or whole group settings can be beneficial for those children who aren’t ready to answer by themselves. Keep in mind that statements like “I wonder . . .” (“I wonder why that happened”) or “Tell me how . . .” (“Tell me how you would change it the next time”) also encourage thinking, even though they don’t have a question mark at the end!