
READY for SCHOOL Parent News:
Finding, Creating and Asking Questions about Patterns

Helping children understand patterns has been shown through research to contribute to children's counting strategies, problem solving, generalizations about number combinations, and algebraic thinking (Copley, 2000). Children naturally recognize patterns within the context of their day, even though they may not identify them as patterns. They know what comes next and may vehemently let you know if you skip something in the typical routine ("No, brushing teeth comes AFTER my bath").

Finding Patterns: Children often become aware of and point out repeating patterns naturally occurring in their environment such as stripes on a shirt (red, yellow, blue, red, yellow, blue). You can help by stating the pattern out loud. Children may also become tuned in to auditory repeating patterns (loud, loud, soft, loud, loud, soft). You can also point out patterns in songs, for example, when you sing "Head, Shoulders, Knees and Toes." Again, both picking up on the patterns they recognize and pointing out some of your own helps reinforce this skill.

Creating Patterns: When children create their own patterns, they may follow the pattern for awhile and then change suddenly. For example, a child may create the pattern, yellow block, orange block, yellow block, orange block, and then follow this with 3 blue blocks. The child's rationale for this might be "because blue is my favorite color!" Children don't need to be corrected every time they don't follow the pattern rules, but you could say, "If I were doing this pattern, I'd probably keep going with "yellow block, orange block" and see what the child says.

You can also invite children to create patterns in their movement such as "jump, jump, clap, jump, jump, clap." They can string beads in a pattern as well. Sometimes adding a physical movement to the making of the pattern helps reinforce the concept.

Asking Questions: Asking open-ended questions related to patterns also helps expand children's thinking. Here are some samples of questions to ask from *The Young Child and Mathematics*, by Copley, 2000, p. 96:

- Do you see a pattern? Tell me about it.
- What comes next? Could you make a pattern with these different materials?
- How could we make a picture that would help us remember this pattern?
- Can you show me a pattern with your body? What would you do first? Second?
- What happens over and over again with these blocks?
- How would you read this pattern?
- What would happen to the pattern if I changed _____?

There are many natural opportunities to explore patterns with children on a daily basis. Enjoy this important mathematics skill together!

Resource: Copley, J. V. (2000). *The Young Child and Mathematics*. Washington, DC: National Association for the Education of Young Children.