

What's Missing?

Players 1-4



Ages 4+



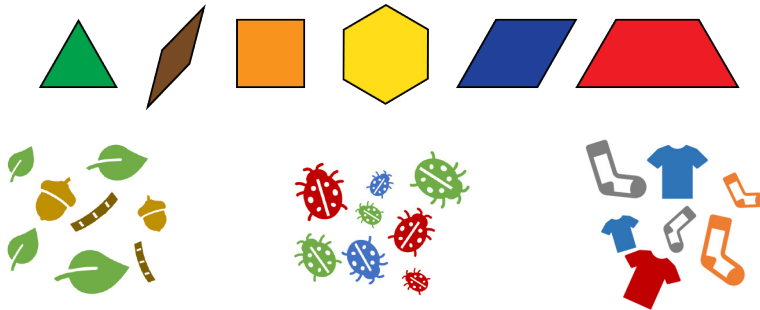
5-10 min

GOAL

To fill a pattern's missing piece.

MATERIALS

Any materials you have enough of to make a pattern.



VOCABULARY

Pattern: a design that repeats in a predictable way so that you know what comes next

Missing

Repeat

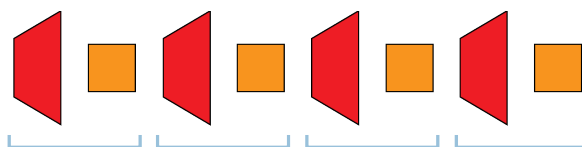
QUESTIONS

What is repeating in this pattern?

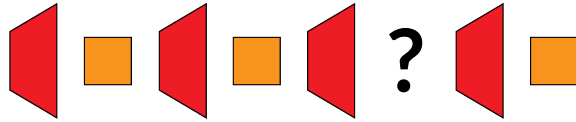
How did you know what was missing?

HOW TO PLAY

1. Create a pattern that is long enough to have at least three repeating units.



2. Together, chant the items' names out loud, pointing to each item as you say its name.
3. Say, "Close your eyes. I'm going to make a small change in the pattern." Then cover or remove one of the pieces from the pattern.



4. "Now, open your eyes. Can you find what's missing from my pattern?"
5. Once children identify the missing piece, you can ask, "How did you know that was the missing piece?"

TIPS FOR PLAYING

- Make your pattern long enough so that children can recognize the pattern's repeating unit. About three repeating units is enough, but feel free to make it longer.
- For an extra challenge, you can remove more than one piece from the pattern. For example, you can remove the second trapezoid and the third square. When children have to figure out several missing pieces, they're getting more practice noticing a pattern's underlying structure.

WHAT CHILDREN ARE LEARNING

- Asking children how they figured out the missing pieces helps you learn about the strategies they are using and how they're beginning to understand pattern structure.
- Ask children to not only solve a problem, but also to explain how they solved it. This helps them practice their mathematical thinking and helps build their language skills.

MATH TOPICS

Patterns and Structure

VIDEO



Watch Game Video

View the QR code in your smartphone's camera app or QR code reader to watch a video that shows how to play What's Missing.