Explore together

Repeating and Growing Patterns

Use a clear rule to continue, repair, or make a pattern.

Get ready: Cards or blocks in two or three different shapes.

01 Repeat a small group

The rule is circle, triangle, triangle, over and over.
Point to the first group of three. Point to the next group.
The next group is circle, triangle, triangle again.



02 Grow by the same amount

Start at 4 and add 3 each time: 4, 7, 10, 13.
To find the next number, add 3 to 13. You get 16.
Ask: Does the same rule work for every step?

Ask as you play

“Can you show me how you know?” Let your child point, build, draw or tell.

Try it yourself

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Point, build, draw or tell. A grown-up can read each question.

1

The rule is square, circle, repeat. Draw the next two shapes.

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2

Start at 6 and add 4 each time. Fill in the next two numbers: 6, 10, 14, ___, ___.

3

Start at 5 and add 5 each time: 5, 10, 16, 20. Which number is wrong? What should it be?

4

Step 1 has 1 block. Add 2 more at every new step. How many blocks are in steps 1, 2, 3 and 4?

5 • Try it if you want

Make a repeating pattern with at least 6 shapes and two full repeats. Say which small group repeats.

Parent answer key

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Keep this page with the grown-up.

1 Square, then circle. Each complete repeat contains one square followed by one circle.

2 18, then 22. Add 4 to 14, and then add 4 to 18.

3 Change 16 to 15. The corrected list is 5, 10, 15, 20, with 5 added at each step.

4 1, 3, 5, 7. Accept an arrangement or drawing with these four amounts in order.

5 Many answers work. For example, circle-square repeated three times. Check all shapes follow the stated group.

What did you notice?

Tried alone, tried with help, or skipped? Pointing, building and explaining all count.

Next time

Ask your child to invent a rule for growing a row of blocks. Take turns building the next step and explaining why.