

Extending 2-Element Repeating Patterns

EXTENDING, CREATING,
TRANSLATING PATTERNS



Suggested learning space setup

**SAMPLE
MATERIAL
FOR
PREVIEW
ONLY**

WHAT TO DO?

- Display two 2-element repeating patterns. Show at least 3 repetitions of each pattern core. Have one pattern end with the full core and the other pattern end midway through the core.
- Ask children to extend each pattern. **Continue this repeating pattern. What comes next?**
- Encourage children to talk about how they knew what came next.

LEARNING SPACES

- **Outdoor** (e.g., shells, stones in 2 different colours, long pine cones, round pine cones, sticks)
- **Create It** (e.g., pom poms, buttons, coloured craft sticks)

OBSERVING AND SUPPORTING

The child extends 2-element repeating patterns. The child explains how they know what comes next in the pattern.

If you see/hear this ...	Say/do this ...
<ul style="list-style-type: none"> ● The child does not extend a 2-element repeating pattern when the pattern ends with the full core. 	<ul style="list-style-type: none"> • Point to the pattern that ends with a full core. Have children describe the pattern. How does the pattern start? (<i>round pine cone</i>) What comes after? (<i>long pine cone</i>) How do you know it's a repeating pattern? (e.g., <i>It goes round pine cone, long pine cone, round pine cone,...</i> OR <i>The objects repeat the same way each time.</i>) What is the shortest part that repeats over and over? Ask questions to guide thinking about extending patterns. Continue the pattern. What comes next in the pattern? How do you know?
<ul style="list-style-type: none"> ● The child extends the repeating pattern incorrectly when the pattern ends in the middle of the core. 	<ul style="list-style-type: none"> • Point to the pattern that ends partway through the core. Is this a repeating pattern? How do you know? What is the pattern? Invite children to use yarn to circle each repetition of the core of the pattern. Which part repeats over and over? Use yarn to circle each time it repeats. Children will notice that the last core is not complete. What happened here? How can we make this one like the others? • Invite children to replicate the core on a strip of paper and move it along the displayed repeating pattern, matching it with each repetition, as they describe the pattern. Discuss how the pattern stopped midway through the repeating part.
<ul style="list-style-type: none"> ● The child extends 2-element repeating patterns. 	<ul style="list-style-type: none"> • Invite children to extend the patterns in Sound and Action Patterns on p. 32 of Math Talks. • Model sound or action repeating patterns, such as <i>jump, clap, jump, clap, jump, clap</i>. Say each action as you show it. What comes next in this repeating pattern? Next, say a pattern but do not show it. Is <i>jump, clap, jump, clap, jump, clap</i> a repeating pattern? Can I make a pattern with just words? How do you know? • Go to <i>Extending, Creating, Translating Patterns Card 3: Creating 2-Element Repeating Patterns</i>.