## Caterpillars and Crafts

Players 2-6 $\quad$ Ages $4+\quad \vdots \quad 10-15$ min

## GOAL

To create a pattern.

MATERIALS

Stringing beads


Pipe cleaners, yarn, or string


## VOCABULARY

Pattern
Beside
Between

## QUESTIONS

What pattern do you see?
What comes next? How do you know?
Can you tell me about the pattern you made?

## HOW TO PLAY

1. Set up a "Caterpillars and Crafts Shop" by putting all the materials on a table or other flat surface.
2. Using the stringing beads and pipe cleaners, yarn, or string, and
make several examples of $A B, A B B$, and $A A B B$ patterns for children to copy. Make more complex patterns as children are ready.
3. Say, "We are going to make caterpillars and crafts to sell to our customers at our shop!" Show children the AB, ABB, and AABB patterns that you made.


AABBAABB


Say, "Can you use these materials to copy the patterns that I made? We will sell your patterns at the shop."

Have children make new crafts by copying the patterns. Once children are ready, have them design their own bead patterns to sell to customers at the Caterpillars and Crafts Shop.

Variation: Make growing patterns and symmetrical patterns for children to copy. To learn more about patterns, watch our Intro to Patterns video, available using the QR Code on the next page or by visiting www.ym.edc.org.

## TIPS FOR PLAYING

- Many stories, dances, and chants follow a predictable pattern.
"Five Little Monkeys" follows a pattern where the words repeat, but the number of monkeys decreases by one each time. "Head, Shoulders, Knees, and Toes" follows a pattern that speeds up as you go. Dancing or movement patterns such as "clap, clap, stomp, clap, clap, stomp" also help children build an understanding of pattern through movement. As you engage children in these everyday activities, help them notice the pattern and describe it in words.


## WHAT CHILDREN ARE LEARNING

- Copying patterns helps children understand what patterns are. It also helps them identify and understand a pattern's repeating unit.
- Children may begin to understand that patterns are made up of repeating units, but it may take more time for them to be able to consistently identify a pattern's repeating unit or create their own patterns. With time and experience, children will be able to see the underlying mathematical structure in patterns. For example, with support, they will start to see that a caterpillar with "blue, red, green, blue, red, green" is just like a bracelet's pattern of "purple, yellow, black, purple, yellow, black," because they can both be labeled $A B C$ patterns.


## MATH TOPICS

## 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 Caterpillars and Crafts.

## Watch the Intro to Patterns Video

View the QR code in your smartphone's camera app or QR code reader to watch a video with more information on playing with patterns.


