

### Use Three Colors to Make Repeating Patterns

Collect the 5-Parades and Number Tiles and ask children to keep their Inch Squares of 2 colors. Each pair of children also needs 8 more Inch Squares of a third color.

Tell children that they are going to make a new pattern today using the Inch Squares.

- *Watch as I make a pattern. Then, tell me what you see.*

Make a pattern using red, blue, and green Inch Squares.



- *How did I make this pattern? Possible responses: You made red, blue, green, red, blue, green, red, blue, green. You made one color, and then a different color, and then another color. And you repeated that.*
- *If I want to keep making the pattern, what would I put next? red square, blue square, green square*
- *Could I keep going and make a long, long, long row? Yes! You could keep showing red, blue, green, red, blue, green.*
- *Let's say a long, long, long pattern like that.* (Lead children in saying a string of 9 repetitions of red, blue, green.)
- *What is our smallest repeating unit? red, blue, green*

If children have trouble seeing the smallest repeating unit, make a small space after each repeating unit so that they can see how the unit repeats.



Next, have children make their own patterns.

- *What will you do if you have colors different from the colors I used? We can show green, yellow, purple. We can go red, orange, blue, red, orange, blue. We can use any three colors as long as they take turns in the row.*
- *Use all your squares to make a repeating pattern with 3 colors.*

**MathTalk** Have each pair say their pattern using their colors.



- *How can you describe the pattern without using names of colors because we all have different squares? Possible responses: We could say, "one color, another color, and a different color." We could say, "first color, second color, third color."*
- *Let's use first, second, third. Point to your pattern and we'll all say, first, second, third, first, second, third, first, second, third, first, second, third.*
- *Now, let's count the squares. One partner counts the squares and the other partner checks the count. Possible responses: We both counted to ten, and then eleven, twelve. We got twelve. That's more than ten!; So did we. We all have a row of twelve.*

Have one partner in a pair hide his or her eyes and ask the other partner to take away 1, 2, or 3 squares. Then, ask the first partner to open her or his eyes and count the number of squares now. Pairs will get different results depending on how many squares a partner removes, but children will be practicing counting 9, 10, or 11 objects. Ask partners to reverse roles.

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### English Learners

Help children create patterns and use language to describe them.

#### Emerging

Ask children to use Inch Squares to make a red, purple, green pattern. Have them point to and say the colors—demonstrate if needed. Then, ask children to show two more patterns using different colors.

#### Expanding/Bridging

Have children make a pattern with 3 colors, point to each color, and say the color name.

Ask children to make another pattern with 3 different colors following the same steps as before.

If children need more support for an AAB pattern, ask them to show green, green, orange for at least four repetitions.