Extending Patterns

Cross-Curricular Focus: Mathematics

Name: _____

There are many different kinds of patterns. They are all around you. If you look for them, they will be easy to find. You can see shapes like circles, squares, triangles and rectangles in the shapes of buildings. They can be used in a pattern to make the building beautiful or interesting. Shapes can also be seen in every day objects. Look around you and see if you can find any patterns.

If you make jewelry, you use patterns, too. When you string beads on a thread, you choose the color of the bead that should come next. Many beautiful bracelets and necklaces follow a pattern. The pattern can be simple or complex. A simple pattern could be one red, one blue, one red, one blue and so on until the string is done. A more complex pattern is red, red, blue, red, red, blue. A pattern is any color grouping that repeats.

Patterns can be extended on paper. You can play with them like puzzles. Patterns on paper can be shapes or drawings. They can also be numbers. Counting by 2s is a pattern. You count 2, 4, 6, 8, 10, 12, going up by 2 each time. Patterns are a fun and creative part of math.

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Why are patterns used on buildings?

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2) If you already have beads on the string that are red, blue, red, blue, red, what should the next four beads be?

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3) If you have a number pattern that starts 5, 10, 15, 20, what should the next four numbers be?

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4) If you have a shape pattern that begins △■□△, what should the next four shapes be?

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5) Make a repeating pattern of your own: