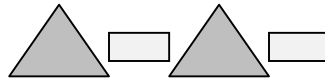


Extending Patterns

Cross-Curricular Focus: Mathematics



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

If you create jewelry, you use patterns, too. You choose the color of the bead that should come next as you string them on a thread. The most beautiful bracelets and necklaces are the ones that follow a regular pattern. The pattern can be **simple**, like one red, one blue, one red, one blue, until the string is done. It can also have more to it, like red, red, blue, red, red, blue, or any other color grouping that repeats.

Patterns can be **extended** and played with on paper. Patterns on paper can be shapes or drawings, but they can also be numbers. Skip-counting by 2's (or any other number) is a pattern: 2, 4, 6, 8, 10, 12, 14.... Patterns are a fun and creative part of mathematics.

Name: _____

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 or objects? _____

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

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

4) If you have a shape pattern that begins \triangle \blacksquare \square \triangle , what should the next four shapes be?

5) Make a repeating pattern of your own: