What is a Triangle?
Extend Your Learning

Note to Parents and Caretakers: The purpose of the following activities is to help children identify shapes that are triangles and shapes that are not triangles. Whether or not a shape is a triangle is based on the following characteristics. The shape must have three straight sides linked end-to-end. This means triangles are two-dimensional shapes and are closed. Many children do not think a shape is a triangle unless it has three equal sides and sits on a side (rather than a point). Many children also think non-triangular shapes are triangles because the shape "looks like" a triangle. Help children identify why a shape is or is not a triangle by discussing lots of examples and non-examples. Use these activities for brief amounts of time over the course of several weeks and have fun!

Activity 1: Take a Triangle Walk.
Walk around your neighborhood and identify shapes that are triangles and shapes that resemble triangles, but do not pass the test. Talk about the characteristics that make a shape a triangle (three sides, closed, straight sides). Also talk about non-defining characteristics like color and size.

Variation: Identify triangles as you travel in a vehicle.

Activity 2: Make Spaghetti Triangles.
Take three pieces of uncooked spaghetti. Place the pieces together to form a triangle. Make sure the triangle is closed. Point to and count the three sides, three vertices (corners), and three angles. Break each piece of spaghetti into two pieces. Do not make the pieces the same size. Build two new triangles with the six pieces of spaghetti. Again point to and count the three sides, three vertices, and the three angles. Try to make two new triangles with the same six pieces of spaghetti.

Variation: You may use other items like drinking straws in place of the uncooked spaghetti.

Activity 3: Play the game, *Triangle Hunt*.
Players: 2 to 4
Directions:

1. Each player searches for a triangle but does not identify where it is. The triangle may be a toy, a picture in a book or magazine, a piece of artwork, etc.
2. Players return to a central location and sit down after finding a triangle.
3. Players take turns showing the others his or her triangle.
4. As a group, put the triangle to the test, and decide if the shape is a triangle or if the shape just resembles a triangle. A triangle has three straight sides linked end-to-end.

Three-dimensional shapes are not triangles, but a face of a three-dimensional shape may be a triangle.

5. Once every one in the group has shared, award points. Those finding a triangle earn one point. Those finding a triangle that was different from all the other triangles earn two points.
6. Each player searches for a second triangle but may not use any of the shapes already used in round one.
7. Continue steps 2 through 5.

Variation: During round 1, hunt for triangles, but during round 2, hunt for quadrilaterals. Quadrilaterals have four straight sides linked end-to-end. Be sure to include quadrilaterals that are squares and rectangles, as well as "odd" four-sided shapes. During round 3, each player hunts for shapes that have more than four sides. Remember shapes must be flat and the sides must be linked end-to-end. If you like, you could name the shapes that you find. Here are the mathematical names:

3 sides – triangle
4 sides – quadrilateral
5 sides – pentagon
6 sides – hexagon
7 sides – heptagon
8 sides – octagon