

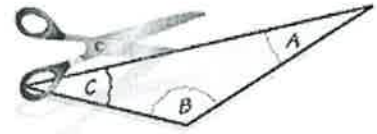
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## How Can You Describe the Relationship Among the Angles of a Triangle? (Topic #2)

### **ACTIVITY 1: Exploring the Interior Angles of a Triangle**

a) Draw a triangle. Label the interior angles  $A$ ,  $B$ , and  $C$ .



b) Carefully cut out the triangle. Tear off the three corners of the triangle.

c) Arrange the letters  $A$  and  $B$  so that they share a vertex and are adjacent.



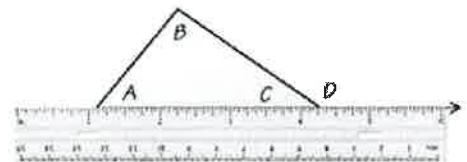
d) How can you place the third angle to determine the sum of the measures of the interior angles? What is the sum?

### **ACTIVITY 2: Exploring an Exterior Angle of a Triangle**

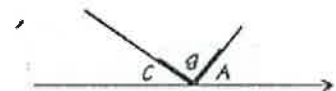
a) Draw a triangle. Label the interior angles  $A$ ,  $B$ , and  $C$ .

b) Carefully cut out the triangle.

c) Place the triangle on a piece of paper and extend one side to form exterior angle  $D$ , as shown.



d) Tear off the corners that are not adjacent to the exterior angle. Arrange them to fill the exterior angle, as shown. What does this tell you about the measure of exterior angle  $D$ ?



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# How Can You Describe the Relationship Among the Angles of a Triangle?

(Topic #2)

## ACTIVITY 1: Exploring the Interior Angles of a Triangle

- a) Draw a triangle. Label the interior angles A, B, and C.
- b) Carefully cut out the triangle. Tear off the three corners of the triangle.
- c) Arrange the letters A and B so that they share a vertex and are adjacent.

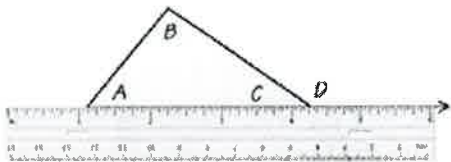


- d) How can you place the third angle to determine the sum of the measures of the interior angles? What is the sum?

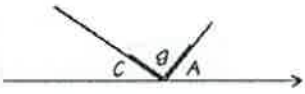
*You can place the third angle adjacent to Angle B. The three angles form a straight line, which equals 180°.*

## ACTIVITY 2: Exploring an Exterior Angle of a Triangle

- a) Draw a triangle. Label the interior angles A, B, and C.
- b) Carefully cut out the triangle.
- c) Place the triangle on a piece of paper and extend one side to form exterior angle D, as shown.



- d) Tear off the corners that are not adjacent to the exterior angle. Arrange them to fill the exterior angle, as shown. What does this tell you about the measure of exterior angle D?



*The measure of exterior angle D is equal to the sum of the measures of the 2 nonadjacent interior angles*