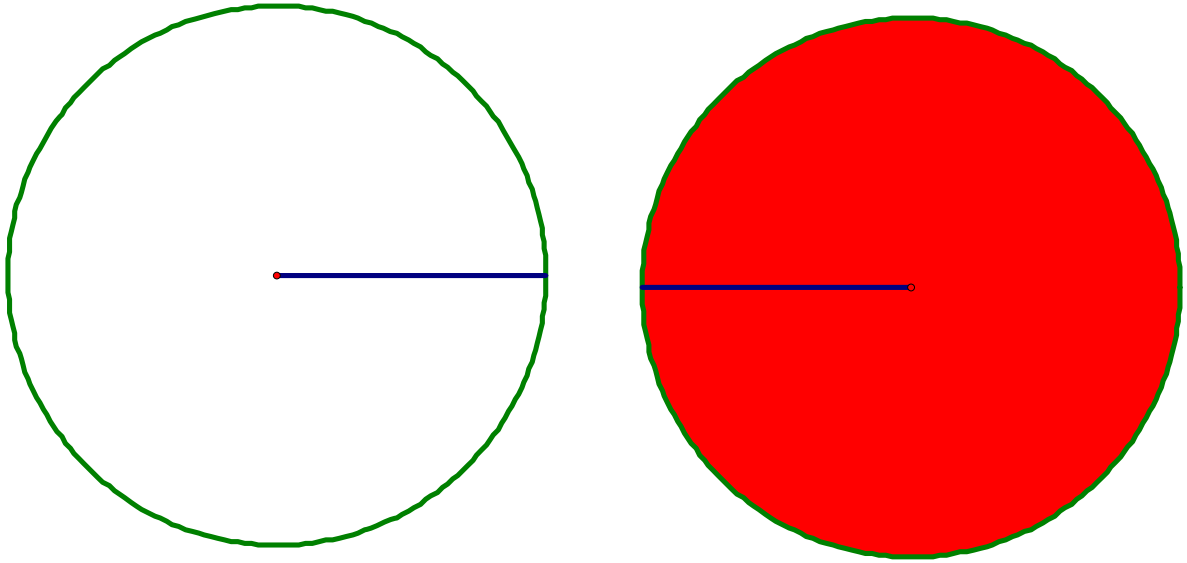
___Turn, Turn, Turn_____



Cut out the two circles given, then along the radius drawn on each circle. Slide the circles together along the cuts.

Make different angles such as a right angle, an obtuse angle, an angle that is the same as 3 right angles, and so forth.

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Discussion, Suggestions, Possible Solutions

Materials: scissors, 2 circles on different colored papers

In this task, students form various angles by rotating the two inter-connected circles. For example, students will make a right angle, an acute angle, an obtuse angle, an angle that is the same as 3 right angles, etc.

In Grade 2, students have encountered angles as geometric shapes, and they have classified angles as right, acute and obtuse. In this task, we encourage students to think of an angle as turn, and measures of an angle is the measure of the turn. Thus, the length of the sides does not really matter when we are measuring an angle. In fact, as students learn to measure an angle with a protractor, sometimes it is necessary for them to extend the sides of a given angle so that it will be easier to measure it.

Extension:

An alternative idea to help children develop the sense of an angle as turn is to have students actually turn while standing at the same location.

Another way for children to actually experience the fact that the length of sides is irrelevant to the size of an angle is to use clocks of different size. No matter how big or small a clock may be, it takes the same amount of time to go from 12 o'clock to 12:15, for example.

A common misconception children have is that an angle with longer sides are larger than those with shorter sides. To deal with this misconception, make another set with two larger circles. Form angles that are about the same size using the two different circles. Then ask, which one do you need to turn more to make these angles, the big one, the small one, or they are the same?