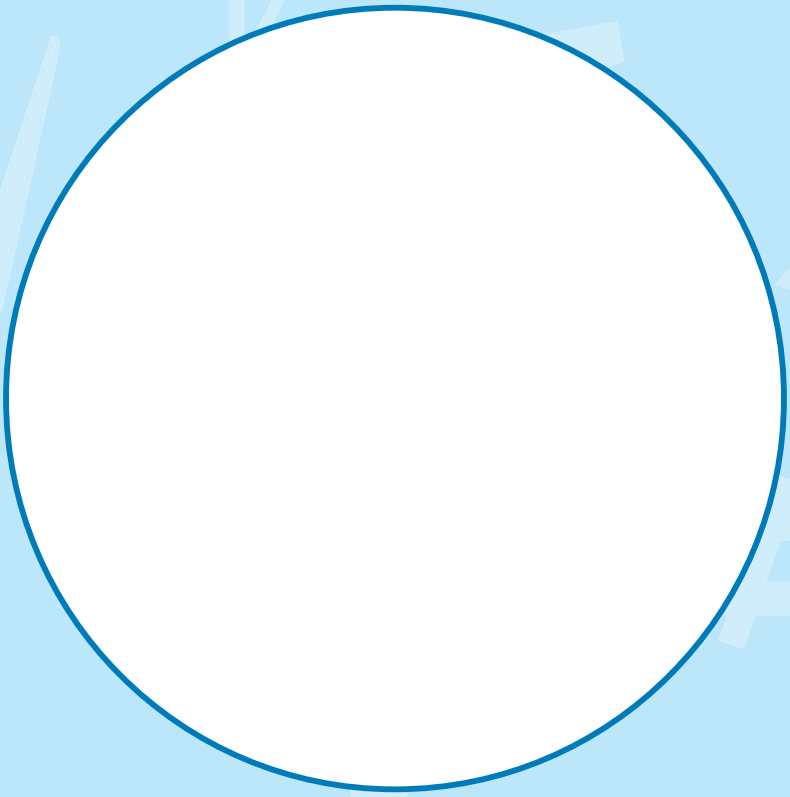
Area of a Circle

Look at the picture of the circle below. Discuss how you can determine the area and perimeter of the circle. Then, in a well developed paragraph, explain how to find the area.
Finally, measure the circle and find the area and perimeter.



Things to consider in your answer:
1. What measurements will you need?
2. What units of measure will you use?
3. How do the measurements you need relate to each other?

Things to consider in your paragraph:
1. Make sure to include a topic sentence and conclusion.
2. Make sure your paragraph contains at least five sentences.
3. Make sure to use transition words to help explain your work.

To Scale

Think about the layout of your school. In small groups, draw a map of your entire school to scale. If possible, work with others to determine the perimeter measurements of your school, as well as interior measurements. Then, working with a teacher or adult, complete the following.

- Select a scale in which to draw your map. For example, 1 inch (1 cm) on your map may equal 10 feet (1.2 meters) in your school. Label the scale on your drawing.
- Draw the perimeter of your school first. Make sure to label the perimeter on your map.
- Draw interior rooms on your map.
- Label the area of your school.
- Identify your classroom. Label the area of your classroom.
- Label important structures in your school.
- Find the perimeter of another room in your school. Make sure you have permission first.

When done, compare your drawings with those of your classmates. Which scale was easiest to work with? Which scale was most difficult? What complications arose in the development of the map?

First, as a class, draw the layout of your classroom below.

Surface Area of a Rectangular Prism

Obtain a box or other rectangular prism. Working alone or in a small group, devise a plan to determine the surface area of the box without measuring any of the sides.

Then, do the following.

1. Explain your plan.

_____

_____

2. Test your plan. Did it work? _____

3. Take measurements of your box. Make sure to identify the main measurements needed for your box. _____

4. Calculate the surface area of the box. _____

5. Compare the surface area you determined by your calculations to the surface area you determined by using your plan. _____

_____

6. Write your findings in a well organized paragraph.

_____

_____

_____

_____

_____

_____

7. Draw a diagram of your box. Label all of the essential measurements you took to determine the surface area.