**Volume of a Sphere Activity**

1) Using the string and a ruler find the volume of the orange. Explain how you found were able to find the volume.

2) Estimate how many oranges can fit in the bowl in the front of the room. (Assume the bowl is a semi-circle)

3) Peel the orange and determine the new volume of the orange; how much volume was lost from the peeling.

4) Using what you have learned about sector area and arc length of a circle, make a conjecture about how to find the volume of a slice of the orange.

5) Use your conjecture to find the volume of 1 orange slice.

6) If one whole orange contains a volume of about 60 mL of juice, then how much would be in 3 slices?

7) Let’s say you find an orange with a radius double the size, what would its volume be?

8) What would be the measurements required to create a cylindrical container that would hold 3 oranges?

9) What would the volume of that container be?

10) What percent of the container would be filled with oranges?