**Science 9 – Dimensional Analysis Activity**

**ROUND ROBIN ACTIVITY RULES**

1. Each group member will be assigned a number, starting with #1 and ending with the number of people in the group.
2. Student #1 will read the question aloud and define the information needed to solve the problem.
3. When the group agrees that the necessary information is complete, student #2 will do the first mathematical step. When the group agrees that the step is correct, student #3 will do the next step. Continue this way until the group agrees that the given unit has been correctly converted to the unit wanted.
4. Student #2 will start the next question by reading it out loud as in step #1. Follow this pattern for all the questions.

**Questions:** Use dimensional analysis problem solving to answer the following questions.

1. A runner completed a 5 mile run. How many yards did she run?

Relationship: 1 mile = 1760 yds

1. In the tour de France, cyclists ride 3,653.6 km over 20 days. How many miles do they go? (hint: watch out for unimportant information)

Relationship: 1 mile = 1.61 km

1. After a nice meal, perhaps you’d finish it off with a pound cake for dessert. What would the name of the cake be in grams?
2. How many nickels would you get for a twenty dollar bill?
3. How many hours in a week?
4. How many revolutions does the hour hand on a clock make in a year?
5. Determine the number of meters in a mile.
6. Calculate the number of seconds in a year.