Carbon Chemistry: Percent mass.

Carbon dioxide in the atmosphere is just one step in the global, carbon cycle. As we have learned, the amount of CO_2, measured in ppm directly determines Earth's temperature. This activity explores how Carbon changes forms and the percent mass of Carbon in each stage of the cycle.

1. Using the periodic table of elements, determine the Percent Mass of Carbon in Carbon Dioxide.

2. Using the periodic Table of Elements, determine the Percent Mass of Carbon in Calcium Carbonate.

3. Use the triple-beam balance to determine the mass of Calcium Carbonate in the oyster shell provided to you.

   _____ grams of $CaCO_3$.

   Now, using the percent mass value, determine how many grams of Carbon must be present in that sample.

   Draw a picture of the Oyster Shell here

   _____ grams of carbon in this shell.

4. Use the triple-beam balance to determine the mass of pure Carbon in the sample of Charcoal provided to you.

   _____ grams of C.

5. Determine the percent mass of Carbon in Cellulose ($C_6H_{12}O_6$).. also known as wood.

   Now, using the percent mass of Carbon in Cellulose, determine how much the piece of wood must have weighed prior to becoming 'carbonized'.

   Draw a picture of the Mesquite charcoal piece

On the back side of this sheet, determine how many pounds of CO_2 will be produced by burning one pound of Propane (C_3H_8)