## The Element Project

Purpose: To become the class expert on one of the 92 naturally occurring chemical elements.

There are two parts to this project.

- 1. Make a solid dodecahedron, a polyhedron with 12 faces. Each face will have one property of a single chemical element.
- 2. Make a 3D atomic model of one of the isotopes of your element. Include the proper protons, neutrons, and electrons of your element in your model.

## YOU WILL BE PRESENTING YOUR DODECAHDRON AND MODEL OF THE ATOM IN CLASS WEDNESDAY, OCTOBER 25TH

## PART 1: DODECAHDRON

- ✓ Choose one element, from the list of elements given to you, to research. Fill out the report below by answering each of the 12 questions.
- ✓ Follow the procedure for making the parts of the dodecahedron.
- ✓ Before assembling it, you will want to write one property on each face. For example, for property 5, write "Discovered by \_\_\_\_\_\_ in \_\_\_\_\_"
- ✓ Be creative, colorful, and decorative in how you present your information on the shape. Your creativity is just as important as the information about the element.
- ✓ After all information is on each of the faces of the shape, we <u>will assemble the dodecahedron in</u> <u>class on Monday, October 23<sup>rd</sup>.</u>

1.	Element name
2.	Element symbol
3.	Atomic number
4.	Atomic mass (in amu)
5.	When discovered & by whom
6.	Metal/Nonmetal/Metalloid
7.	Group number and name
8.	Stable isotopes
9.	State of matter at room temperature
10.	Top 3 Uses
11.	Interesting fact about the element
12.	Safety issues

## PART 2: MODEL OF THE ATOM

Create a 3D model of one of the isotopes of your element. Include the proper number of protons, neutrons, and electrons for your atom. Include a key and label your element with its isotope name (ex. Carbon-13).