Name: _____ Date: _____ Per. ____

Element Project

An **element** is a pure substance consisting of atoms which all have the same number of protons. Individually or in combination, the elements form all matter! As we learned in class, each element can be found on The Periodic Table of Elements, which was created by Dmitri Mendeleev.

The purpose of this project is to help you become familiar with the characteristics of one of the first 20 elements. The project has 3 parts:

- A graphic organizer with information from your research
- A model of an atom of your element
- An 2-3 minute oral presentation

You will be given two class periods to work on the graphic organizer part of the project in school. Whatever work is not completed during these two class periods will need to be completed on your own time. You will work on your model of an atom and oral presentation parts of the project outside of school.

You may work individually or with a partner. If you work with a partner you will create 1 project together and each partner will receive the same grade on the project.

This packet contains all of the information that you need in order to complete this project. This packet must be in class every day. We will be working with the packet in class **Monday, March 23rd through Monday, April 6th**. I will be checking to make sure that the graphic organizer is completed to ensure that the project is completed by the project due date.

Check a box;

☐ I am creating this project alone

☐ I am creating this project with a partner. My partner is _____

The Element Project is due on: **Tuesday, April 7**

Parent/Guardian Signature: _____

Name: _____ Date: _____ Per. ____

Element Project: Graphic Organizer

We will work on this part of the project in class on Tuesday, March 24 and Wednesday, March 25.

In the graphic organizer below, please record the following information. You will need this information for your model and presentation.

<table>
<tr><td colspan="2">Name of element:</td></tr>
<tr><td>Symbol:</td><td>Atomic number:</td></tr>
<tr><td>Atomic weight:</td><td>Standard state:</td></tr>
<tr><td>Number of:
Protons _____
Electrons _____
Neutrons _____</td><td>Classification and Family:
Metallic, Non-Metallic, or Metalloid
(circle one)
Family:
_____</td></tr>
<tr><td>Color:</td><td>Uses:</td></tr>
</table>

Name: _____ Date: _____ Per. ____

Element Project: Graphic Organizer (continued)

Write at least 3 interesting facts about your element. Facts should be written in the 3rd period and in your own words.

Interesting Fact #1 (in your own words):

_____

_____

_____

Interesting Fact #2 (in your own words):

_____

_____

_____

Interesting Fact #3 (in your own words):

_____

_____

_____

Struggling with what to write about? Here are some ideas:

- If your element has a symbol that does not match the name of your element, explain why that is. (For example, Mercury's symbol is Hg.)
- How your element was used in the past compared to how it was used today.
- Is your element found naturally? If so, explain where it can be found. If your element is not found naturally, explain where it comes from.
- Is your element reactive with other elements and/or compounds?

Name: _____ Date: _____ Per. ____

Element Project: Model of an Atom

We will not work on this part of the project in class.

For this part of the project, you will create a model of 1 atom of your element. Your model must include:

- The correct number of protons, neutrons, and electrons arranged in the nucleus and the energy shells of the electron cloud.
- A key indicating the number, charge and color of protons, neutrons and electrons in your model. The key may be on an index card that you attach to your model.

You can use a variety of materials to make your model. It can be made on poster board, cardboard, or it can be 3-D. Be creative!

Element Project: Oral Presentation

We will not work on this part of the project in class.

For this part of the project, you show your model to the class and give a 2-3 minute oral presentation about your element. Partners will give 1 presentation together. Your presentation must include:

- Information that is scientifically accurate and presented in an interesting and original way.
- The atomic number, atomic mass, state of the element, uses of the element, number of protons, number of neutrons, and number of electrons.
- At least 3 interesting scientific facts about your element.