

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Per. \_\_\_\_\_

## Element Project

An **element** is a pure substance consisting of atoms that 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 **two** parts:

- A graphic organizer – which should contain information from your research
- A model of an atom of your element

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 outside of school.

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 **Friday, April 7<sup>th</sup> and then Monday, April 17<sup>th</sup> through Wednesday, April 19<sup>th</sup>**. 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.

The Element Project is due on: **Tuesday, April 25<sup>th</sup>**

Parent/Guardian Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Per. \_\_\_\_\_

## Resources

You will need to use at least two sources to complete your research: one print (book) source and one electronic source (website or database). Some resources have been provided below. A more extensive list of resources can be found on both my webpage and on the Library's webpage. Your sources must be cited in MLA format in the space at the bottom of this page.

### **Print Sources:**

Textbook – Science Explorer: Chemical Building Blocks

Citation:

Frank, David V, John G. Little, and Steve Miller. *Prentice Hall Science Explorer*. Needham, Mass: Prentice Hall, 2000. Print.

### **Electronic Sources:**

- <http://Chem4Kids.com> - Select "Elements 1-36" to find your element.

If you use information from this source, use the following format for the MLA citation:

"Specific Article Title." *Name of Website*. Publisher, Date of Publication. Web. Date viewed. <URL>.

- <http://periodicvideos.com/> - Select your element to watch a short video.

If you use information from this source, use the following format for the MLA citation:

Author Last name, first name (if available). "Specific Article Title." *Name of Website*. Publisher, Date of Publication. Web. Date viewed. <URL>.

### **My Print Source Citation:**

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### **My Electronic Source Citation:**

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## Element Project: Graphic Organizer

**We will work on this part of the project in class.**

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

Name of element:	
Symbol:	Atomic number:
Atomic weight (mass):	Standard state:
Number of: Protons _____  Electrons _____  Neutrons _____	Classification  Metallic  Non-Metallic  or Metalloid (circle one)
Color:	3 uses of the element:  _____  _____  _____  _____  _____

Name: \_\_\_\_\_

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Element Project: Graphic Organizer (continued)

**Choose three of the following questions to answer about your element.**

Your answers should contain specific details and should be written in your own words as complete sentences.

1. What was your element named after?
2. 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.)
3. Where and when was your element discovered?
4. 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.
5. How your element was used in the past compared to how it was used today?
6. Is your element reactive with other elements and/or compounds? If so, explain what it will react with.

Question #\_\_\_\_ ( Please answer in your own words):

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Question #\_\_\_\_ ( Please answer in your own words):

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Question #\_\_\_\_ ( Please answer in your own words):

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Name: \_\_\_\_\_

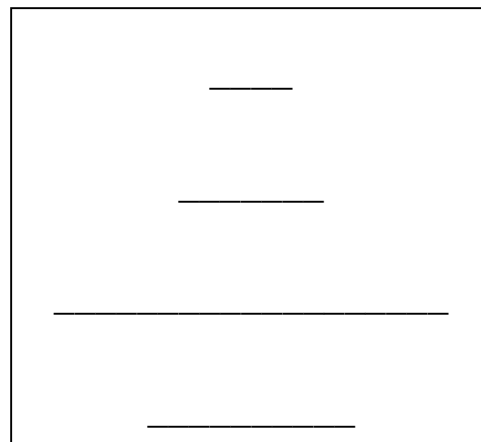
Date: \_\_\_\_\_

Per. \_\_\_\_\_

## Element Project: Diagram of an Atom

On this page you will draw a diagram of one atom of your element. You can use this diagram as a reference when you build your model. Your diagram must include:

- The square from the Periodic Table of Elements
- A key that shows both the charges and the number of protons, electrons and neutrons
- Labels for the nucleus and the electron cloud



### Key

- Proton =
- Neutron =
- Electron =

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Per. \_\_\_\_\_

## Element Project: Model of an Atom

**We will not work on this part of the project in class. However, if you need any materials, then please let Ms. Ritter know as soon as possible.**

For this part of the project, you will create a model of one atom of your element.

Your model must include:

1. The correct number of protons, neutrons, and electrons arranged in the nucleus and the energy shells of the electron cloud.
2. A key indicating the number, charge and color of the 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!**