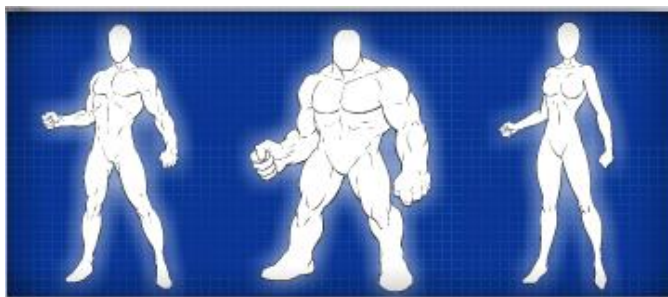


# ELEMENT SUPERHERO PROJECT



Every element in the periodic table has unique physical and chemical properties. This is due to the unique number of subatomic particles (protons, neutrons, and electrons) found in the atoms of each element and how the electrons are arranged in the empty space around the nucleus of those atoms.

## Assignment:

1. Choose one element from the periodic table and research its physical properties, its compounds, useful ways the element or compounds are used, origin, number of subatomic particles, isotopes of that element, etc. (Use the fact sheet provided)
2. Then create a superhero to represent that element and its unique qualities.
3. Design a poster depicting your superhero and its name. Create an illustration of your superhero complete with its costume. On your poster, you must explain what the special abilities of your superhero are and how they are related to the properties of the element you have researched. Be creative.

DUE: \_\_\_\_\_

Use the following websites to find out qualities (both physical and chemical) about the element you chose.

<http://www.chemicool.com/>

<http://www.ptable.com/>

<http://www.chemicalelements.com/>

<http://www.webelements.com/>

<http://www.periodicvideos.com/index.htm>

<http://www.periodictable.com/>

<http://www.uky.edu/Projects/Chemcomics/>

\*\* has pictures if you need inspiration

You may choose to use the websites below to help you with your drawing:

[http://marvel.com/games/play/31/create\\_your\\_own\\_superhero](http://marvel.com/games/play/31/create_your_own_superhero)

<http://www.heromachine.com/heromachine-1-1/>

## YOUR ELEMENT SUPERHERO PROJECT MUST INCLUDE THE FOLLOWING SECTIONS:

The poster should include:

**TITLE:** Creative **name** of superhero.

**DESCRIPTION OF ELEMENT SUPERHERO (2 PARAGRAPHS):**

This section should include a brief **description** of how your superhero acquired, used, or lived with their element power. You may want to describe where does your superhero element lives (where in nature can it be found). What are his/her superpowers? Does your superhero element have a hideout? What are his/her strengths? What is his/her weakness? Who is his/her arch nemesis (evil super villain)? What kind of super suit does your superhero have?

**5 FACTS:**

This section should include at least **5** fun facts about your element. You can choose to describe facts that illustrate where your element is found in nature. You may also wish to describe what is your element used for. You may address what are characteristics of your element or what are important uses of your element. For example, can your element be made into something useful or can your element combine with other elements to make something totally different.)

**ATOMIC DRAWING**

Include the atomic structure of your element with **correct labeling** of its protons neutrons, electrons. Make sure your drawing has the **correct number** of **protons, neutrons, electrons**.

**DRAWING OF YOUR ELEMENT SUPERHERO**

This section should include a **drawing (in color)** of your Element Superhero on a clean sheet of **WHITE** paper. You may want to draw your Element Superhero fighting his nemesis (super villain). Or you may want to draw your Element Superhero using his special powers.

**Also, make sure that your drawing corresponds to the characteristics of your super hero. Example: If sulfur is your chosen element, the superhero's uniform or hair or skin, etc. should be yellow since sulfur has a characteristic yellow color.**

### **PROPER FORMAT**

-TYPED!!!! 12 pt font. Times New Roman.

- If you do not have a computer/printer available I will accept a **NEATLY** handwritten project.

- If handwritten, must be on **CLEAN, UNWRINKLED** notebook paper with **CLEAN EDGES!!!!**

\*\*\*\*ATTACH THIS TO YOUR PROJECT\*\*\*\*

## Elemental Hero Research – Student Worksheet

*If your element is a gas at room temperature, there will be some physical properties that do not apply. Skip them.*

### A: General Information:

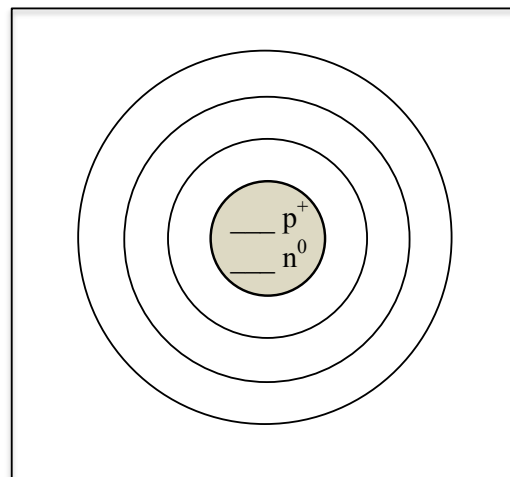
Name: \_\_\_\_\_ Symbol: \_\_\_\_\_

Group \_\_\_\_\_ Period \_\_\_\_\_ Chemical Family: (if any) \_\_\_\_\_

Protons: \_\_\_\_\_ Electrons: \_\_\_\_\_ Neutrons: \_\_\_\_\_

Metal/Metalloid/Nonmetal/Inert Gas: \_\_\_\_\_

Bohr Diagram: (required for Elements 1-20 only) 



### B. Physical Properties:

1. State at room temperature: \_\_\_\_\_

2. Colour : \_\_\_\_\_

3. Lustre: \_\_\_\_\_

4. Malleable? \_\_\_\_\_

5. Ductile? \_\_\_\_\_

6. Density \_\_\_\_\_

7. Conductor of Heat/Electricity? \_\_\_\_\_

8. Melting Point: \_\_\_\_\_

9. Boiling Point : \_\_\_\_\_

10. Hardness \_\_\_\_\_

11. Other: e.g. flame test colour? \_\_\_\_\_

### C. Uses of the Element or its Compounds:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

**D. 5 facts about the element:**

1) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**E. Study the information you have collected. What are some of the characteristics or superpowers of your superhero? They should relate to the information for the element.**

eg: beryllium transmits x-rays well and is a hard metal, so your superhero may have the powers of x-ray vision and the ability to shatter glass.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_