The Periodic Table of Superheroes and Villains!

For this project you will create a superhero or villain character based on the characteristics of an element of the periodic table. You will research an element (some time will be devoted to this in class) to collect the needed information for this project.

Procedure

**1. Write down your element**:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2. Research the properties of that element.**

 A. Begin by writing down the chemical name, chemical symbol, atomic number, and atomic mass of your element. This information should be recorded on pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in your science notebook.

B. Then begin researching Physical and Chemical Properties of that element (color, state at room temperature, reactivity, boiling point, freezing point, melting point, malleability, density, ductility, flammability, conductivity, explosiveness, size, hardness, brittleness, etc. There are lots of others I have not listed! Write down anything you think you might be able to use!) This information will also be recorded on pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in your science notebook.

 C. Find AT LEAST TWO important uses of the element in the real world.

**3. Decide if your character is a villain or a superhero.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**4. Draw and color a picture of your element character. Your picture should include the following:**

 A. The name of your superhero/villain and your name on the FRONT of the paper.
 B. The atomic number, atomic mass, and element symbol of your element should be included in the drawing somewhere. You can use speech bubbles, incorporate it into their attire, make it part of the background/hideout, or think of some other creative way to include this!
 C. Include at least THREE characteristics of your element in your drawing. For example, if an element has an extremely high melting point, you might want to include a picture of your element superhero or villain being able to walk through fire. Another example would be using the actual color of the element to color your superhero or villain. One of your characteristics could even be a way it is used in real life. BE CREATIVE! You must list the three characteristics of your element on the back of your sheet of paper to receive full credit for this step.
 D. Draw and color your picture on a piece of white computer paper. ONE PIECE will be provided to you in class. If you mess it up, you will responsible for providing additional pieces of paper. You will be allowed to TRACE superhero figures, but you may not print them from the internet to use as your own.

**5. Choose ONE of the following project extensions to complete and turn in with your drawing**

 A. Write a ONE PAGE short story about something your superhero or villain has done recently. Be sure to incorporate the character’s name, the three characteristics you chose for the drawing and any other information that will help your story along. This story is fiction so it is entirely up to you how it goes! Just be creative. You may submit this story in black ink with your best handwriting or type and print it. You must use Times New Roman Font in 12 pt. size if you choose to type it.

 B. Record a newscast where you star as the reporter reporting on something you have just witnessed your superhero or villain doing. Be sure to incorporate the character’s name, the three characteristics you chose for the drawing and any other information that will help your story along. Really get into it and recruit any friends who might help your newscast along. \*\*You may record this video with any smartphone, tablet, or other recording device you have, but you must be able to upload it to YouTube and email me the link to your video.\*\* (If you need help uploading it to YouTube, create an account at home and then come see me 3rd period, and I can help you.)

 C. Team up with ONE other person from your class to create a short graphic story about the adventures of your characters. Your story can be about two superheroes teaming up to save a city, a superhero and villain battling one another, or about two villains and what they do to try to take over the world. The important part of this assignment is that you MUST provide BOTH a story and pictures. (Think of comic book style writing!) You can complete this book on paper, use PowerPoint, or find another way to complete it. You will share the grade you receive on this portion of the assignment, so if you choose to do this, please choose your partner wisely!

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| www.chemicool.com | www.ptable.com | education.jlab.com | www.webelements.com |
| Above you will find a few different internet sites to help get you started. Use the QR Code Reader on the iPad to scan these and begin your research. You are welcome to also do your own research, but please be sure that you are getting your information from a trusted and reputable site!  |

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| **Research Portion** | **Self (Student) Evaluation** | **Teacher Evaluation** |
| Student has completed research in class that will help them complete their project. They have recorded this research on pgs.\_\_\_\_\_\_\_\_\_\_\_\_in their science notebook. | \_\_\_\_\_\_\_/20 points | \_\_\_\_\_\_\_\_/20 points |
| Total points available for Research: 20 |
| **Color Picture** | **Self (Student) Evaluation** | **Teacher Evaluation** |
| Superhero name and student name are both included on the front of the drawing.  | \_\_\_\_\_\_\_\_\_/ 4 points | \_\_\_\_\_\_\_\_\_/ 4 points |
| Atomic number, atomic mass, and chemical symbol have been creatively incorporated into the picture | \_\_\_\_\_\_\_\_\_/ 6 points | \_\_\_\_\_\_\_\_\_/ 6 points |
| Three characteristics of the element have been creatively incorporated into the picture. Student has also listed these characteristics on the BACK of the sheet.  | \_\_\_\_\_\_\_/18 points (6 points for each characteristic) | \_\_\_\_\_\_\_/18 points (6 points for each characteristic) |
| Student has used a sheet of 8.5x11 copy paper to complete this assignment. | \_\_\_\_\_\_\_\_\_/ 3 points | \_\_\_\_\_\_\_\_\_/ 3 points |
| Student has COLORED their superhero/villain and any accompanying background  | \_\_\_\_\_\_\_\_\_/5 points | \_\_\_\_\_\_\_\_\_/5 points |
| Student may have traced but did NOT print off a superhero. The superhero has been designed uniquely.  | \_\_\_\_\_\_\_\_\_/ 4 points | \_\_\_\_\_\_\_\_\_/ 4 points |
| Total points available for Color Picture: 40  |
| **Project Extension** | **Self (Student) Evaluation** | **Teacher Evaluation** |
| Student(s) have followed all of the instruction for the project extension they chose. They have completed this to the best of their ability and properly submitted it in the format requested.  | \_\_\_\_\_\_\_\_\_/ 40 points | \_\_\_\_\_\_\_\_\_/ 40 points |
| Total points available for Project Extension: 40 |
| Total Points available for Entire Project: 100 |
| Teacher Use Only! Your score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_/100 |