

Element Project Rubric

Name _____

Your element project will contain 3 parts:

- Element Research Project
- Creative Writing: Disappearing Elements
- Build an Atomic Model

Each portion of the project will be due a different week. It is important to plan out in advance how to manage your time for each portion of the project. Make sure your name is on everything and that these worksheets are turned in with each part of the project

Part I: Element Research Project

The following is a rubric for your element research project. It is a list of the items needed for your project and how many points each item is worth. **Please refer to it often when completing your project.** The method by which you will relay the information required will vary according to your presentation choice

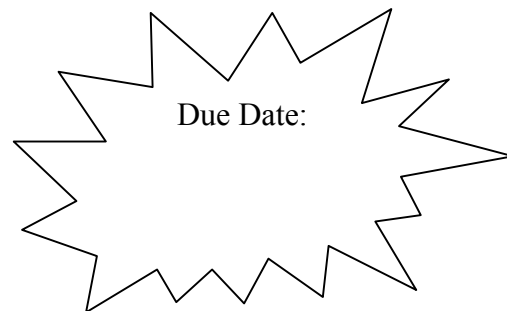
Project Choices:

- 1) Element Super Hero 2) Element Commercial 3) Element Ball 4) Adopt an Element

*** See Attached Sheet for directions for each project ***

In addition to **20 points given for each individual project's directions**, you will be given points for including the following information within your project :

- _____ (1 pt) element name
- _____ (1 pt) atomic number
- _____ (1 pt) atomic symbol
- _____ (1 pt) atomic mass (with units)
- _____ (3 pts) number of protons, number of neutrons, number of electrons
- _____ (1 pt) electron configuration
- _____ (1 pts) when discovered/first produced
- _____ (1 pts) who discovered/who produced
- _____ (1 pts) where it can be currently found/how made
- _____ (4 pts) 4 physical descriptions: metal, non-metal, metalloid, color, texture, state, density, melting point, boiling point, physical state (S, L, G) at room temperature
- _____ (5 pts) how it is used – **AT LEAST** 5 common uses
- _____ (1 pt) valence electrons (electrons in the outermost shell – available for bonding)
- _____ (2 pt) group, period
- _____ (3 pt) Pictures or drawings of element ** Will depend on Project** – visual aids to enhance project
- _____ (2 pts) Neatness/spelling and color/creativity
- _____ (2 pts) List of sources. For example, books, web sites, magazines, etc. (can be on a separate sheet or incorporated into information sheet). Must also cite sources for all images/pictures



Total / 50

Comments:

1. Element Super Hero (20)

Use your 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. (This should be the information provided on the assignment sheet) Then create a superhero to represent that element and its unique qualities. 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.

YOUR ELEMENT SUPERHERO PROJECT MUST INCLUDE THE FOLLOWING SECTIONS:

The poster should include:

___ / 2 **TITLE:** Creative name of superhero.

___ / 8 **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?

___ / 2 **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, and electrons.

___ / 8 **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.

2. Element Commercial (20)

Students will create a video commercial for their element. 1 or 2 people in a group: 1 grade for the partnership. Students will research element to know all the other information in the "required facts" section. In the commercial, students will cleverly disguise the information into a commercial for a fictitious product that is no longer than 5 minutes that you will present to the class. Commercial should introduce a slogan or jingle for a fictitious product that is based upon the true facts of the elements properties. May do more than one small commercial for multiple members in a group. Each member's element must be represented with all the information needed.

___ / 5 Information is cleverly and creatively disguised into the commercial. All information required from the rubric is placed into the commercial.

___ / 5 Slogan or jingle is created for the product that is clever. Slogan/jingle represents the element well.

___ / 10 Commercial contains a fictitious product that reflects the element very well. Student(s) are creative and the commercial is well organized and rehearsed. It is evident that effort was put into the commercial.

3. Informational Element Cube (20)

Utilizing the information presented on the rubric page, students will create a 3D cube to present their information.

___ / 5 **Finished Product:** The project demonstrates careful construction! All sides fit together neatly. NO structural faults are visible

___ / 5 **Correct Information:** All sides contain correct information about the element

___ / 5 **Approach:** The project is very appealing to the eye. It possesses a distinct pattern for the presentation of the information

___ / 5 **Creativity/Uniqueness:** Attention is drawn to the project due to unique styles or designs. The individuality of the project is readily apparent.

4. Adopt an Element (20)

The poster may be created on the computer (use white or colored paper) or by hand on 9x12 inch construction paper. The advertisement must include the element's name, symbol, atomic number, atomic mass, cost, and a rhyming advertising slogan that describes one or more of its important uses. The advertisement must be neat, **colorful**, and contain all information listed above. Also required are two images or pictures of your element as they relate to your advertisement theme.

___ / 10 All information requested is presented on the advertisement in a meaningful way. Information is easy to read and easy to find.

___ / 5 Creative slogan is created for the element. Slogan rhymes, makes sense, and reflects the element and one of its many uses.

___ / 5 Poster is neat, creative, eye-catching, and well organized. IT is evident that student tried hard to create a quality project. Poster is easy to read and contains two pictures of the element (either raw or within a product)