

Element Trading Cards Project

All of the known elements are arranged on the Periodic Table. Ninety-three occur naturally on Earth. Scientists using advanced techniques and equipment (like particle accelerators) have synthesized the rest of the elements. As a student of science, it is important for you to have a good working knowledge of the elements.

You need to choose 2 of the following elements:

H, He, Na, K, Mg, Ca, Fe, Co, Ni, Cu, Zn, C, N, O, F, P, S, Cl, I, Pb

Objectives:

1. Research 2 elements and record its basic properties.
2. Create an "element trading card" for each, which will incorporate these properties, along with a picture of their element.
3. Be prepared to present your trading card to the class, and discuss some of the uses of your element.

Elemental Trading Card Guidelines

1. The card should be created on a 5X7 index card, or the same size on computer paper.
2. The **front** of the card must have:
 - A square containing the information from the periodic table (element name, symbol, atomic number, and mass number)
 - # of protons, # of neutrons, and # of electrons
 - A visual image of the element. (You may use graphics from the web if you REFERENCE the source)
3. The back of the card should include the element's "statistics":
 - a. What is the name of your element; what is the origin of the name?
 - b. What Chemical symbol represents your element and for what reason has this symbol been chosen?
 - c. Where on Earth do you find your element?
 - d. Briefly describe the history of your element's discovery? (**When** was the first documented evidence recorded of it? By whom was it discovered and documented?)
 - e. What physical properties define your element? (Physical state (solid, liquid, gas) at room temperature, melting point, boiling point, and physical description such as color, odor, etc.).
 - f. What are the (interesting) chemical properties of your element? (Is it flammable, combustible, corrosive, etc.)
 - g. What is the importance of your element? How do people use it?

Some Research time will be provided in class.

Here are some websites that will be useful!

<http://www.webelements.com/webelements/scholar/index.html>

http://www.chemsoc.org/viselements/pages/pertable_fl.htm

<http://chem4kids.com/elements/table.html>

<http://www-tech.mit.edu/Chemicool/>

<http://chemicalelements.com>

Element Trading Card Rubric (40 pts)—turn in with trading card or -10

Organization (8 pts)	
• card contains name and period on front upper right corner	<input type="text"/> /3
• index card/computer paper is 5 x 7 - makes efficient use of all space (front and back), is aesthetically pleasing, neat, and shows effort.	<input type="text"/> /5
Front of card (8 pts)	
• Includes information from periodic table (atomic number, chemical symbol, name, and atomic mass), protons, neutrons, and electrons.	<input type="text"/> /6
• Includes at least one image of your element (preferably of your element in natural state; -2 if the electron structure of atom.)	<input type="text"/> /2
Back of card (22 pts)	
• Includes 7 clearly designated and easy-to-follow content sections (a-g on information sheet).	<input type="text"/> /2
• What is the ORIGIN of the name of the element? What SYMBOL represents your element and for what reason has this symbol been chosen? WHERE on Earth is your element commonly found? (In what U.S. states and/or other countries is it commonly found?)	<input type="text"/> /6
• Describe the HISTORY of your element's discovery. (When was the first documented evidence recorded of it? By whom and where was its discovery documented?)	<input type="text"/> /4
• What CHARACTERISTICS (physical and chemical properties) define your element? (Includes the phase (s, l, g), melting point, boiling point, and physical description (color, odor, etc.), and if it is flammable, combustible, corrosive, etc.)	<input type="text"/> /6
• What is the IMPORTANCE of your element? How do people use it? What are some examples of uses?	<input type="text"/> /4
Attached to card (2 pts)	
• Includes an <u>attached</u> works cited/resources used page with proper heading; - 3 pts for partial or NO sources cited.)	<input type="text"/> /2
TOTAL	<input type="text"/> /40

