

Element Investigation Chemistry Project

Currently over one hundred elements have been identified and are included in the Periodic Table of Elements. **You will be responsible for becoming an expert on ONE of these elements.** To do this you will need to research the element and collect information from reliable sources.

You will demonstrate your expertise by producing a thorough, interesting, and high-quality PowerPoint presentation which will be presented to your classmates. (Need Flash Drive to submit)

My element: _____

Powerpoint Due: _____

My presentation date: _____

Things to Consider:

Slides must be in the order listed.

You must have a **title** on each of your slides.

Do not include any words in your presentation that the average person would not understand. If you feel the need to include a word most people don't know, be sure to define it! If you are unsure, define it anyway just to be safe.

Font size – At least 28 or higher

Pay attention to font size. Those watching your presentation from the back of the room should be able to read all text on your slides. The information on your slides should be to the point and short (**bullets as opposed to complete sentences**).

Graphics – NO CLIP ART!! Use actual pictures and ALL pictures must be different. Only use the PT & Element symbol once.

Creativity: The presentation should be pleasing to the eye and should contain pictures, images or objects *where appropriate*. Do not allow the presentation to contain only text. Also do not allow your slides to look “busy” with too many graphics, too much color or designs.

Save file as:

Element name your first name per #

For example: Sodium Bob 1

Slide #	Slide Title (1 points)	Graphic (2 points)	Text (5/10 points)	Points
1	Element Name (i.e. "Hydrogen")	Pic of Element (at least 1)	Student Name Per Presentation Date	5
2	Element Properties	At least 2 Graphics that apply to slide <i>(not clip art!)</i>	Group Name on PT Type of Element (Metal, Nonmetal, Metalloid) Natural S.O.M. Color What makes your element unique or special? List 5-7 important physical and/or chemical properties of the element. Physical Properties – examples are luster, malleable, ductile, conducts electricity, density, MP, BP, etc Chemical Properties – how does it react or which elements is it most reactive with? (at least 2) Cost (per gram, pound, etc) (use bullets)	15
3	Discovery & Element Name	At least 2 Graphics that apply to slide <i>(not clip art!)</i>	Date it was discovered Who discovered it Who named it Where it was discovered Element Symbol What does element name mean (& from what language) Is it found pure in nature? OR is it only found in a compound form with other elements? (use bullets)	12

4	Bohr Model	<p>At least 2 Graphics that apply to slide</p> <p>1 Pic is the Bohr model of the element's atomic structure: number of energy levels and how many electrons per level</p> <p>(not clip art!)</p>	<p>Atomic number</p> <p>Average atomic mass on PT</p> <p>How many known Isotopes does this element have?</p> <p>Of all the isotopes – who is the most abundant?</p> <p># of protons, neutrons, electrons</p>	11
5	Type of Bonding	<p>At least 2 Graphics that apply to slide</p> <p>1 Pic is the Lewis Electron Dot Diagram Model: must include the element's symbol and the valence electrons located in the correct location</p> <p>(not clip art!)</p>	<p>What type of bonding (Ionic, Covalent, or Metallic) does this element prefer to make?</p> <p>How many valence electrons does the element have available to form a chemical bond?</p> <p>What happens to its electrons (lose/gain) when it forms a chemical bond with another element?</p> <p>Give an example of a balance chemical reaction (reactants and products) that your element is involved in for a common substance. (Make sure balanced equation is written correctly)</p>	10
6	Historical & Current Uses	<p>At least 2 Graphics that apply to slide</p> <p>(not clip art!)</p>	<p><u>Historical</u> uses – How was the element first used? (at least 2)</p> <p><u>Current</u> uses – What NEW uses do we use this element for? (at least 2) (use bullets)</p>	12

7	Interesting Facts	At least 2 Graphics that apply to slide <i>(not clip art!)</i>	Why is your element important? At least 2 interesting facts - Anything you want to share about element. What kind of everyday items can your element be found in or list its common uses? (At least 1) How has this element affected humans? What would life be like if that element did not exist? (At least 1) <i>(use bullets)</i>	12
8	Sources	A different element graphic.	<i>Yahoo, Google, etc. are not references, They are search engines.</i> Name of website and link. At least 5 or more sources. (no Wikipedia) Textbook – Name of Textbook and page #'s	7
Optional BONUS	1. Video clip (no more than 30 seconds)		Make sure video will play – Check the day before that it works!!	1 2
		Practice Timing. Look at us when you present!	Eye Contact & Presentation Time: Between 3-5 minutes (will be stopped if you go over 4 minutes.) Dress nicely Do not read the Powerpoint – Practice ahead of time	6
			Stimulate Interest: Students can ask questions about your presentation and you MUST know the answer!!	5
			Teacher Interest: You MUST know the answer!!	5

Overall Score _____ out of 100

LATE PRESENTATIONS: Presentations that are not prepared on the day assigned will lose 10 points per day. (Maximum 1 day late) **If you miss your presentation day, you may not have the opportunity to present unless absence is excused!!**