Element Cube Project Name:_____ Period:____

You will be researching a particular element and building a cube that highlights your research. You will tell the class what you learned in a 2-3 minute oral presentation. Later on you will be using your cube (along with your classmates) to discover the patterns and trends in the Periodic Table. DUE DATE: _____**(Mrs. Blakemore)**

Directions:

1. Read this handout and the Template packet carefully to learn what you need to research about your element.
2. Research and collect information about your element using your periodic table, textbook, reference books in the UMS library and the resources on the Chemistry Resource tab on the UMS Media Center webpage.
3. Use the handout below to record your research and keep notes.
4. Download the template from my website and save it on your computer or memory stick.
5. Using the computer type the information collected on all sides of the cube (except the creative side) OR print out the template and NEATLY hand write the information following the instructions on the template page. Information should be presented in a colorful and organized manner.
6. Everything needs to fit in the text boxes. Do NOT change the size of the cube.
7. Print the six sides and **glue them neatly to a poster**. Let the glue dry.
8. Design the creative representation of your element for side 5. This is like a mini-poster and needs to have a 3-D component. Have fun with this side. Show what you know about your element beyond what is on the other sides.
9. Create a works cited page in Noodletools and print the document. (See information on last page.)
10. Carefully cut out the 6 squares cutting exactly on the lines.
11. Bring the 6 squares to school on the assigned date for construction along with your works cited page.
12. We will construct the cube in school.
13. Be prepared to present your Element Cube to your classmates. You should be able to relate what you learned about your element in a 2-3 minute presentation. You will take notes on all the presentations gaining an understanding of the Properties of Matter of some of our common elements.

Side #1 – Symbol and Name:

1. Symbol of your element (make this large on your cube).
2. Name of the element.
3. Your name.

My element: _____ **Element symbol:** _____

Side #2 – Images:

You must have at least four pictures of your element. See the template for instructions Pictures may be printed out from the Internet or photocopied but you must cite your sources in Noodletools. One must be a Bohr Model. See example.

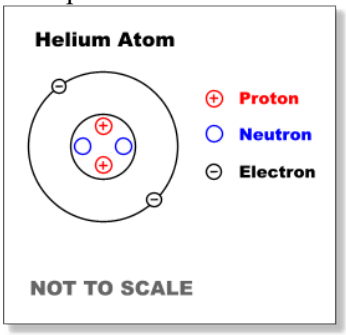

Figure 1

Picture	Caption
1. Picture of element in elemental form.	
2. Bohr Model	Bohr Model of _____ Number of protons_____ Number of neutrons_____ Number of electrons_____
3. Perhaps a different State of Matter	
4. Perhaps a fun or unusual picture	

Side #3 –Physical & Chemical Properties of _____:

* Color code the entire side per the key in the textbook for *physical state of matter at room temperature*. Red for solids, blue for liquids and green for gases. . *Shade the entire side lightly with a colored pencil or crayon neatly!*

Color:	**Odor:**
State of matter at room temp.:*	**Texture:**
Density:	**Flammability: (How likely is it to burn?)**
Melting point: In degrees C	**Reactivity: (How likely it is to react with other elements?)**
Boiling point: In degrees C	**Other Interesting Properties**

Side #4 –Periodic Table Information for _____:

*Color code the entire side per the key in the textbook for *type of element*. Blue for metals, green for metalloids, yellow for non-metals. . *Shade the entire side lightly with a colored pencil or crayon neatly!*

Type of Element: (metal, nonmetal or metalloid)*	**Period:**
Atomic Number:	**Group:**
Atomic Mass:	**Family:**

Side #5 – Creative Representation – Use this space for notes, research and ideas.

Side #6 – Written Representation

Question:	Research:
1. Where is the element found and how is it obtained?	
2. What are the main uses of this element? Give an explanation of how it is used. If used in compounds, list the compound and tell how the compound is used.	
3. When was the element discovered? Who is given credit for its discovery? Where was it discovered?	
4. Where did the elements name come from? Where did its symbol come from? What does the name mean?	
5. Give at least two other interesting facts about this element.	

Check the rubric to make sure you have all the necessary information. Please pay special attention to neatness and detail! I can't wait to see your element cube! ☺

Circle the element you have been assigned:

Lithium	Calcium	Silicon	Oxygen	Bromine
Sodium	Boron	Germanium	Sulfur	Iodine
Potassium	Aluminum	Nitrogen	Selenium	Helium
Beryllium	Gallium	Phosphorous	Fluorine	Neon
Magnesium	Carbon	Arsenic	Chlorine	Argon

Mrs. Wasiak has created a **"Chemistry Resources"** tab on the UMS Media Center website. Please use these resources for your "cube".

Mrs. Wasiak has created a **"Noodletools"** tab on the UMS Media Center website. Please use this resource along with the blue Noodletools handout in your notebook to create your "Works Cited" page.

You will be going to the UMS Media Center on _____ to learn how to cite all of the resources that you will be using. Have your "Element Cube Project" already set up in Noodletools prior to this class. Need help? See Mrs. Wasiak.

UMS Media Center Access Information:

1. Username : mumslib
2. Password: student

Recommended Reading for Research at UMS Media Center "Chemistry Resources" tab.

Gale Virtual Reference Library (eBook)

1. Click on link (Gale Virtual Reference Library)
2. Enter password (student)
3. Choose "Science"
4. Choose "Chemical Elements 2010"
5. Choose a volume (A-F; G-O; P-Z)
6. Choose an element
7. Read the article
8. Click on "Citation Tools" at top of article and follow directions to add to your works cited page.