Element Cube Project

Name:_____ Period:____

Directions: Collect data about your element using reference materials and internet sites. Construct the element cube. Place the data collected neatly on the 6 sides of the cube following instructions. 2 days class work allowance. Unfinished work is homework.

Grading: 700 points total – project category. 200 points for collecting data on this worksheet. Data collected must be thorough and accurate. 500 points for the completion of the cube. This is based on construction of the cube, placement of data on the cube, following directions, and overall neatness.

Side #1 – Symbol and Name:

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

My element:

Element symbol:

Side #2 – Images:

You must have at least two pictures of your element. One picture should be the shell pattern of electrons. The other is your choice. Pictures may be printed out from the Internet or photocopied (you should make them small so they fit on the cube). Important: you must place a caption under each photo. The caption for shell pattern of electrons should say, "Shell pattern of electrons for (name of your element)."

Side #3 –Physical & Chemical Properties of _____:

Color:

Odor:

State of matter at room temperature:

Texture:

Density:

Flammability:

Melting point:

How reactive is it? (Will it combine with other elements?)

Boiling point:

Side #4 – Periodic Table Information:

Type of Element:

Period:

Atomic Number:

Group Number:

Atomic Mass:

Name the family to which your element belongs:

Side #5 – About _____:

Provide background history of your element. Who discovered or first identified your element? What country? When?

Where is your element found and how is it obtained? How is your element separated from other materials found with it?

Side #6 – Uses of _____:

How and where is your element used? Where do you "bump into" your element in everyday life? (either in its pure form, in compound form, or in mixture form)

Cube Construction:

Use the construction template to outline three parts of the cube (each part has 2 sides). Do not cut and assemble yet! Glue your parts on before you put the cube together. Construct the cube last.

Element Cube Project Template

Everything needs to fit in these text boxes. When done, you can print this out, cut out the squares, and paste it on construction paper. Do not use color unless you plan on printing this at home.

Side #1

Xy

Name of Element

Your Name
Period

Side #2

Pictures of (Element)

You must have at least two pictures of your element. One picture must be the shell pattern of electrons. The other is your choice. Pictures can be easily downloaded from Webelements.com
Important: you must place a caption under each photo. The caption for the shell pattern of electrons should say, "Shell pattern of electrons for (name of your element)."

Side #3

Physical & Chemical Properties of (Element)

Color:

Odor:

State of matter at room temp:

Texture:

Density:

Flammability:

Melting Point:

Reactivity:

Boiling Point:

Side #4

Periodic Table Information

Type of Element:

Period:

Atomic Number:

Group:

Atomic Mass:

Family:

Side #5

About (Element)

Side #6

Uses of (Element)

Building A Structure : Element Cube project

Teacher Name: **Mr. Bisson**

Student Name: _____

CATEGORY	4	3	2	1
Plan	Plan is neat with clear measurements and labeling for all components.	Plan is neat with clear measurements and labeling for most components.	Plan provides clear measurements and labeling for most components.	Plan does not show measurements clearly or is otherwise inadequately labeled.
Scientific Knowledge	Explanations by all group members indicate a clear and accurate understanding of scientific principles underlying the construction and modifications.	Explanations by all group members indicate a relatively accurate understanding of scientific principles underlying the construction and modifications.	Explanations by most group members indicate relatively accurate understanding of scientific principles underlying the construction and modifications.	Explanations by several members of the group do not illustrate much understanding of scientific principles underlying the construction and modifications.
Information Gathering	Accurate information taken from several sources in a systematic manner.	Accurate information taken from a couple of sources in a systematic manner.	Accurate information taken from a couple of sources but not systematically.	Information taken from only one source and/or information not accurate.
ıstruction - Care Taken	Great care taken in construction process so that the structure is neat, attractive and follows plans accurately.	Constuction was careful and accurate for the most part, but 1-2 details could have been refined for a more attractive product.	Construction accurately followed the plans, but 3-4 details could have been refined for a more attractive product.	Construction appears careless or haphazard. Many details need refinement for a strong or attractive product.
Construction - Materials	Appropriate materials were selected and creatively modified in ways that made them even better.	Appropriate materials were selected and there was an attempt at creative modification to make them even better.	Appropriate materials were selected.	Inappropriate materials were selected and contributed to a product that performed poorly.

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