# Adopt an Element Project

The purpose of this project is for you to become familiar with an element and share your findings with the class.

**Part 1: Research**
It is important for you to find out as much information about the element as you can. You are the only person in the class that will be studying your element so you will become the class expert. You must find the following things in your research.

Adopt an element requirements **(Worth 50 points)**

1. Atomic number
2. Atomic mass
3. #p, n, e
4. Metal/Non-metal/ Metalloid
5. Group #
6. Row #
7. Physical & Chemical Properties (at least 5)
8. Making use of the element in today's world
9. Environmental effects. Is it poisonous?
10. Bohr model
11. State of matter at room temperature (Solid, Liquid, or Gas)
12. How was it discovered?
13. Who discovered it?
14. Where and when was it discovered?
15. Where in the world is it currently found? Where is it mined?
16. Find an interesting fact about your element
17. Percentage of your element on earth. How abundant is it?
18. Is it reactive with other elements? Which elements?
19. Name a compound that it forms and what does this compound do?
20. Density compared to water
21. Find a photograph picture of your element. (The internet is a good source.)
22. Is there any connection of your element to biology? How does your element affect the human body?
23. Bring in a real life example of your element. (**Example:** If Copper were your element you could bring in items that contain copper such as wire or pennies)

**Part 2: Presentation (Worth 50 points)**

Requirements for the presentation

1. A poster with all of the above poster requirements
2. Real life example of your element
3. Presentation must 3 minutes
4. At the end of the presentation you must ask the class 2 quiz questions about your element and presentation.

## Adopt an Element

Name _____

RESEARCH ..... 2 points each

| | |
|---|---|
| Atomic Number | _____ |
| Atomic Mass | _____ |
| #p, n, e | _____ |
| Metal/nonmetal | _____ |
| Group/Family | _____ |
| Row # | _____ |
| Physical Properties | _____ |
| Chemical Properties | _____ |
| Forms compounds | _____ |
| Uses | _____ |
| Environmental effect | _____ |
| Bohr Model | _____ |
| Solid/Liquid/Gas | _____ |
| How discovered | _____ |
| Who discovered | _____ |
| When discovered | _____ |
| Where found | _____ |
| % Earth composition | _____ |
| Density | _____ |
| Photo of element | _____ |
| Biology connection | _____ |
| Element example | _____ |
| Interesting factoid | _____ |
| Creative!! | _____ |

PRESENTATION..... 5 points each

| | |
|---|---|
| Voice Volume | _____ |
| Poise | _____ |
| Rehersed | _____ |
| Eye contact | _____ |
| Refers to poster | _____ |
| Real life example | _____ |
| 3 minutes in length | _____ |
| Enthusiastic | _____ |
| Quiz questions | _____ |
| Intro/closure | _____ |

## Adopt an Element

Name _____

RESEARCH ..... 2 points each

| | |
|---|---|
| Atomic Number | _____ |
| Atomic Mass | _____ |
| #p, n, e | _____ |
| Metal/nonmetal | _____ |
| Group/Family | _____ |
| Row # | _____ |
| Physical Properties | _____ |
| Chemical Properties | _____ |
| Forms compounds | _____ |
| Uses | _____ |
| Environmental effect | _____ |
| Bohr Model | _____ |
| Solid/Liquid/Gas | _____ |
| How discovered | _____ |
| Who discovered | _____ |
| When discovered | _____ |
| Where found | _____ |
| % Earth composition | _____ |
| Density | _____ |
| Photo of element | _____ |
| Biology connection | _____ |
| Element example | _____ |
| Interesting factoid | _____ |
| Creative!! | _____ |

PRESENTATION..... 5 points each

| | |
|---|---|
| Voice Volume | _____ |
| Poise | _____ |
| Rehersed | _____ |
| Eye contact | _____ |
| Refers to poster | _____ |
| Real life example | _____ |
| 3 minutes in length | _____ |
| Enthusiastic | _____ |
| Quiz questions | _____ |
| Intro/closure | _____ |

# Adopt-An-Element

**Requirements:**

**1) Complete an Adopt An Element information sheet. (60% of grade)**

You may use a variety of reference sources. Possible ideas are encyclopedias (book or CD Rom), science encyclopedias, science catalogs, magazines, and/or Internet sites*. Information sheets must be neat, written in black ink, and contain all the information requested. You also need to provide a list of your sources on the back of your information sheet. A minimum of three sources are required.

**2) Create an advertisement for your element. (40% of grade)**

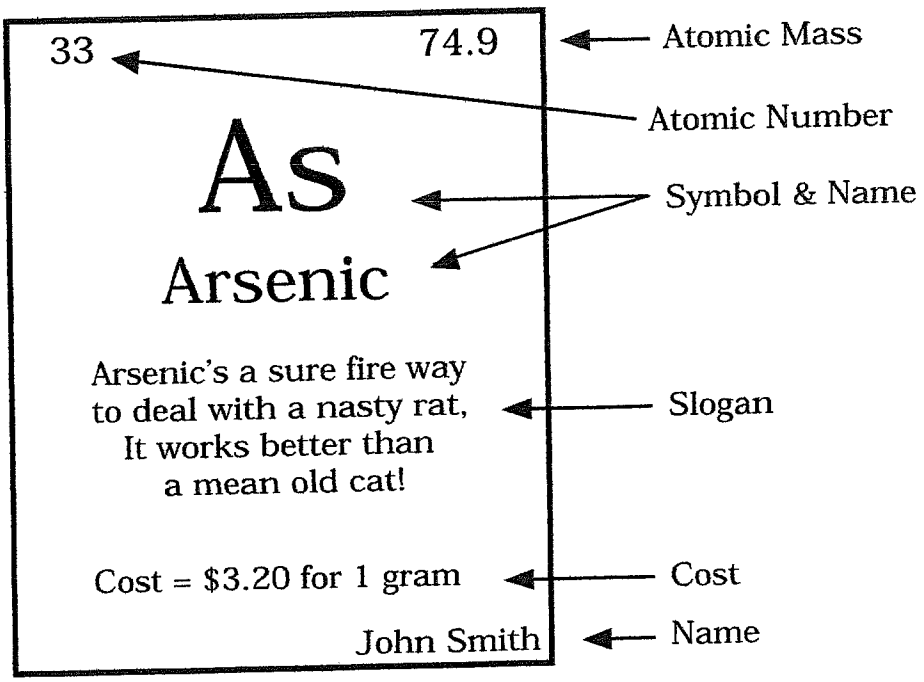
The advertisement must include the element's name, symbol, atomic number, atomic mass, cost, and an advertising slogan that describes one or more of its important uses. Advertisements must be neat, colorful, and contain all the information listed above. You may add pictures that relate to your advertisement theme.

**Example:**

Be sure to include:
- √ Element's symbol
- √ Element's name
- √ Atomic number
- √ Atomic mass
- √ Ad slogan
- √ Cost
- √ Your name

You may add pictures or drawings that illustrate the various uses for your element.

**Your ad must follow the same format as this example!**




A list of periodic table sites is available on

**The Science Spot**

**http://sciencespot.net/**

Go to **Kid Zone**, then choose **Chemistry Links**

# Adopt An Element

Grade Sheet

Name _____

## Advertisement = 24 points (40%)

- **Provided basic information*** ..... + 12 _____
  - ○ Atomic # ○ Symbol ○ Cost
  - ○ Atomic mass ○ Name ○ Student's Name
- **Slogan and pictures relevant** ..... + 10 _____
- **Followed directions** ..... + 2 _____
  Neat, correct spelling/format, original

## Information Sheet = 36 points (60%)

- **Provided basic information** ..... + 10 _____
  - ○ Name ○ Symbol ○ Atomic # ○ Atomic Mass
  - ○ Protons ○ Neutrons ○ Electrons ○ Melting Point
  - ○ Boiling Point ○ Normal Phase
- **Other information** ..... + 11 _____
  - ○ Cost
  - ○ Nonmetal/Metal/Metalloid
  - ○ Family
  - ○ Origin of Name
  - ○ ○ Discovery & Date
  - ○ ○ ○ ○ ○ ○ Interesting Information/Uses
- **References** ..... + 9 _____
  Minimum of 3; provided required information; correct format
- **Miscellaneous** ..... + 6 _____
  Black ink, complete sentences, correct spelling, neat

**Total Points = _____ out of 60 = _____%**

**A B C D F**

# Adopt An Element

Name _____

## Fact Sheet

Element _____

| Symbol | Atomic Number | Atomic Mass |
|---|---|---|
| _____ | _____ | _____ |
| **# of Protons** | **# of Neutrons** | **# of Electrons** |
| _____ | _____ | _____ |
| **Melting Point** | **Boiling Point** | **Normal Phase** |
| _____ °C | _____ °C | _____ |

Cost = _____ for _____

Classification: ○ Nonmetal ○ Metal ○ Metalloid

My element belongs to the _____ family.

Origin of Name _____

Discovered by _____ in _____

Interesting Info: May include important uses, interesting facts, common compounds, etc.

1.

2.

3.

4.

5.

6.