

Name \_\_\_\_\_

## Introducing the Elements Worksheet

**Introduction:** An *element* is a substance which cannot be separated into simpler substances by ordinary methods. Use your Periodic Table of the Elements and your prior knowledge concerning elements to answer the questions on this worksheet.

**The Names of the Elements:** As you look at your periodic table, you will recognize some of the more common elements, but you will probably also notice that some elements have strange names. Where did all of these names come from? You will find out as you work through the exercises below.

A. Some elements are named after **places**. Identify the element that is named after the place given in each clue.

1. The country of France \_\_\_\_\_
2. The country of Germany \_\_\_\_\_
3. America \_\_\_\_\_
4. The country of Poland \_\_\_\_\_
5. Scandinavia \_\_\_\_\_
6. One of our states \_\_\_\_\_
7. The city of Berkeley \_\_\_\_\_
8. The continent of Europe \_\_\_\_\_
9. The German state of Hess \_\_\_\_\_
10. Russian town of Dubna \_\_\_\_\_

B. Four of the elements are named after **planets**. Identify the elements named after planets and their planet. (One of the planets was recently demoted to a dwarf planet)

Element	Planet (or dwarf planet)

C. Many elements are named after **famous scientists**. The scientist's last name is used along with the ending "ium". Identify the element for each scientist given.

1. Neils Bohr \_\_\_\_\_
2. Marie Curie \_\_\_\_\_
3. Albert Einstein \_\_\_\_\_
4. Enrico Fermi \_\_\_\_\_
5. Ernest Lawrence \_\_\_\_\_
6. Lise Meitner \_\_\_\_\_
7. Dmitri Mendeleev \_\_\_\_\_
8. Alfred Nobel: \_\_\_\_\_
9. Ernest Rutherford \_\_\_\_\_
10. Glenn T. Seaborg \_\_\_\_\_

### Element Symbols:

An *element symbol* is an abbreviation for the name of an element. A symbol can have one or two letters. The *first* letter of a symbol is *always capitalized*. The second letter (if there is one) is never capitalized. Symbols for the naming of elements are part of an *international* language. Chemists all over the world use the same symbols.

1. It's easy to see where some of the symbols came from by looking at the names of the elements. **The symbol seems to be a combination of one or two of the beginning letters in the element's name.** Complete the following table by filling in the missing word or symbol.

Element	Symbol	Element	Symbol
<b>Carbon</b>	= C	<b>Chlorine</b>	= Cl
<b>Hydrogen</b>			<b>Cu</b>
<b>Oxygen</b>			<b>Au</b>
<b>Nitrogen</b>			<b>Ag</b>
<b>Sulfur</b>			<b>He</b>
<b>Iodine</b>			<b>Al</b>
<b>Iron</b>			<b>Ca</b>
<b>Lead</b>			<b>Ne</b>
<b>Mercury</b>			<b>K</b>
<b>Phosphorus</b>			<b>Na</b>
<b>Lithium</b>			<b>Be</b>
<b>Boron</b>			<b>F</b>
<b>Magnesium</b>			<b>Al</b>
<b>Silicon</b>			<b>P</b>
<b>Argon</b>			<b>Kr</b>
<b>Xenon</b>			<b>Rn</b>
<b>Strontium</b>			<b>Ba</b>

2. The elements in the following table are ones that have symbols that come from their **Latin names (except tungsten which came from its German name)**. Study the element symbol, and then pick the Latin (or German) names from the word bank.

**Word bank**

Argentum      Aurum      Cuprum      Ferrum      Hydrargyrum  
 Kalium      Natrium      Plumbum      Stannum      Stibnum  
 Wolfram

English Name	Symbol	Latin Name	English Name	Symbol	Latin Name
Antimony			Potassium		
Copper			Silver		
Gold			Sodium		
Iron			Tin		
Lead			Tungsten		
Mercury					

**Uses of Some of the Elements:** Choose your answers for the following questions from the following list of elements. The number next to the element indicates if it is used more than once. Start with ones that you know, then use the poster in the back of the room to help.

**Word Bank**

Aluminum      Arsenic      Calcium      carbon      Chlorine      Chromium  
 Copper      Fluorine      Hydrogen      Iodine      Iron (2)      Lead  
 Magnesium      Mercury      Neon      Sulfur      Tungsten      Uranium

1. Needed for strong bones and teeth \_\_\_\_\_
2. Added to toothpaste and city water systems to help tooth decay? \_\_\_\_\_
3. Used to disinfect swimming pools \_\_\_\_\_
4. Used to “paint” the skin to prevent infection from cuts and scratches. \_\_\_\_\_
5. Used in bright, flashing advertising signs \_\_\_\_\_
6. Element that is rolled into a foil found and used in your kitchen \_\_\_\_\_
7. Found in the U.S. penny \_\_\_\_\_
8. liquid metal that used to be used in thermometers \_\_\_\_\_
9. Used for the shiny trim on cars \_\_\_\_\_
10. Steel is formed when a little bit of carbon is added to this element. \_\_\_\_\_
11. A diamond and your pencil lead (graphite) are made of this \_\_\_\_\_
12. A yellow element stinks when burned \_\_\_\_\_
13. Found in liver and red blood cells and is needed to prevent anemia \_\_\_\_\_
14. Used in light bulbs as a filament \_\_\_\_\_

15. Used as rat poison and is found in the title of the murder mystery “\_\_\_\_\_ and Old Lace”
16. Used as a shield to protect people from radioactive substances \_\_\_\_\_
17. Elements Used to make the first atomic bombs \_\_\_\_\_
18. Used in flares because it burns with a bright, white light \_\_\_\_\_

**Puns and Word Play** – Can you guess the name of the element from the clues given?

1. You might hit a golf ball with one of these. \_\_\_\_\_
2. What you might do with a dead person. \_\_\_\_\_
3. When you pray, you might have your \_\_\_\_\_ the floor. \_\_\_\_\_
4. A goofy prison inmate. \_\_\_\_\_
5. When you are not here, you \_\_\_\_\_.
6. A financial payment made from one spouse to another after a divorce.  
\_\_\_\_\_
7. What you say if you pass someone named Drogen. \_\_\_\_\_
8. Superman’s least favorite element. \_\_\_\_\_
9. What blue lollipops do to your mouth. \_\_\_\_\_
10. A cross between a person who is not exciting, and one who is not very smart.  
\_\_\_\_\_
11. The capital of North Dakota. \_\_\_\_\_
12. If you have about 50% of something. \_\_\_\_\_
13. If you look over a document very quickly. \_\_\_\_\_
14. A U.S. coin. \_\_\_\_\_
15. A large container holding many automobiles. \_\_\_\_\_
16. What you should do if Laurie’s boyfriend is cheating on her. \_\_\_\_\_
17. “The Great Bambino” or “ The Sultan of Swat” \_\_\_\_\_
18. Dorothy’s wizard lives here. \_\_\_\_\_
19. What doctors do to patients. \_\_\_\_\_
20. If the anium belongs to you, it is \_\_\_\_\_.
21. This is what a kitchen is called on a ship. \_\_\_\_\_
22. A law enforcement officer. \_\_\_\_\_
23. If you exercise regularly, your muscles will become \_\_\_\_\_
24. The Norse god of thunder’s favorite element. \_\_\_\_\_
25. The older greek gods favorite element. \_\_\_\_\_