

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## *Alien Periodic Table Clues*

*There are only 34 elements on the planet Blizzrritt. Your job is to develop a Periodic Table for the Blizzrrittians using the clues provided below. Write the names of the alien elements in the table below.*

The inert gasses are **bombal** (Bo), **wobble** (Wo); **jeptum** (J); and **logon** (L). Among these gasses, wobble has the greatest atomic mass and bombal the least. Logon has less energy levels than jeptum.

The most reactive group of metals are **xtalt** (X), **byyou** (By), **chow** (Ch), and **quackzil** (Q). Of these metals, chow is the most reactive. Quackzil is in the same period as Logon. Xtalt makes a substance called salt on the planet Earth.

**Apstrom** (A), **vulcania** (V), and **kratt** (Kt) are non-metals whose atoms typically gain or share one electron. **Kratt** is in the same period as **Xtalt**. **Vulcania** is a liquid at standard temperature and pressure (STP).

The semimetals are **Ernst** (E), **highho** (Hi), **terriblum** (T), and **sisst** (Ss). Sisst has four energy levels and will gain 3 electrons during a chemical reaction. Ernst is the only semimetal in its family of elements. Highho and terriblum are in Group 14. Terriblum has more protons than highho. **Yazzer** (Yz) touches the zigzag line, but it's a metal, not a semimetal. It always gives away 3 electrons.

**pfst** (Pf) can lose or share one electron. It has properties that make it hard to classify on the Periodic Table. **eldorado** (El) is used to make cans to store food in. It has 69 neutrons and is found in a group known to humans as the Carbon group. The most chemically active nonmetal is **Apstrom** (Ap). Kratt reacts with Xtalt to form table salt. Chow (Ch) has the largest radius of any atom on the planet Blizzrritt.

The element **doggone** (D) has the same number of energy levels as Aprstrom. Doggone is only slightly less reactive than Quackzil (Q) because it loses one more electron than Quackzil when reacting with other elements.

**Floxit** (Fx) is important in the chemistry of life. Earthlings put it into the family of elements also called the Carbon Group. It forms compounds made of long chains of **Floxit** atoms called polymers.

**Rhaatrap** (R) and **doadeer** (Do) are metals with two outer electrons. Doadeer is just above an element that burns a pinkish-red color on Earth. **rrhaatrap** is less reactive than **doadeer**. They both have two outer electrons.

**Magnificon** (M), **goldy** (G), and **sisst** are all members of Group 15. **Goldy** has one more neutron than Floxite. **Magnificon** has 16 neutrons and Ssst has 42 neutrons. Magnificon is more reactive than Ssst.

**Urrp** (Up), **oz** (Oz), and **Nuutye** (Nu) all gain 2 electrons when they react. **Nuutye** is found as a diatomic molecule and has the same properties as a gas found in that far away planet called Earth. Both Oz and Urrp are solids. Oz is the element that causes many things to have terrible smell, like rotten eggs.

The element **anatom** (An) has atoms with a total of 49 electrons. **Zapper** (Z) ALWAYS loses two electrons when it reacts. **Zapper** burns a brilliant red color when mixed with the gas Nuutye. It is part of the Malkali-Blizzrritt group of metals. Pie (Pi) will melt in your hand, is a dull grey metal similar to the metal called Zinc on Earth, but it is less reactive than Zinc.

The next four elements all give away one or two electrons. Just like the primitive Earthlings do, three of these elements are used by the *Blizzrrittians* to make their coins.

**Rapper** gives away one electron but does not have similar properties to **Chow** and the other Column One elements. It conducts electricity well and also has a high thermal conductivity. **Rapper** burns with a green flame.

**Nernaki** (Nk) is used to make the **Blizzrrittians** coin called the knikl. It is dull grey in color and conducts heat and electricity. It is more reactive than **Rapper** which the Blizzrrittians use to make wires and pipes.

**Argentum** (Ag) is used by the Blizzrrittians to make their forms of dimes and quarters. It is a shiny and hard metal that is a good conductor of heat and electricity. The isotope form of **Muilallap** (Mu) has a mass of 107 and the normal atom has a mass of 106.

1									18
	2			13	14	15	16	17	
						1	2	3	4

Alien Questions:

- 1.) In the box labeled #1 in the Alien Periodic Table above would the element be a metal, non-metal or a semi-metal (metalloid)? \_\_\_\_\_
- 2.) How many outer electrons would be found in the Alien Element that belongs in box #2 in the Alien Periodic Table above? \_\_\_\_\_
- 3.) In box #3 in the Alien Periodic Table would the element most likely be a solid, a liquid or a gas? \_\_\_\_\_
- 4.) What is the alien name for the one element that does not fit in any group on the Periodic Table? \_\_\_\_\_
- 5.) What type of element would be put into box #4 above by the Alien scientists? \_\_\_\_\_  
What would be its Atomic Number \_\_\_\_\_ Atomic Mass \_\_\_\_\_ Reactivity \_\_\_\_\_ State \_\_\_\_\_?
- 6.) There are only 92 naturally occurring elements in the Universe. Alien civilizations would no doubt call them by different names than we do here on Earth.  
Give three reasons why an Alien Periodic Table would have the same shape and organization as ours.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
- 7.) Which Alien element in Column #1 would have the lowest atomic mass? \_\_\_\_\_
- 8.) Which Alien metallic element would be most reactive? \_\_\_\_\_
- 9.) Which Alien non-metallic element would be most reactive? \_\_\_\_\_
- 10.) Name the Alien chemical compound that would be formed from the Alien elements #11 and #17? \_\_\_\_\_  
What would this compound be called on Earth? \_\_\_\_\_
- 11.) In the following list which Alien elements are a metal; non-metal; metalloid?  
"Ernst" \_\_\_\_\_; "Xtalt" \_\_\_\_\_; Apstrom \_\_\_\_\_
- 12.) In the following list which elements are an Alkali Metal; Alkali Earth metal; Halogen; Noble Gas?  
Chow \_\_\_\_\_; Zapper \_\_\_\_\_; Vulcania \_\_\_\_\_; Jeptum \_\_\_\_\_