

Go to http://www.chem4kids.com/files/elem_ptable.html

1. Why are the elements placed in specific places on the Periodic Table?
2. Periods are _____ that run from _____ to _____.
3. Elements in the same period have the same _____.
4. Every element in the first period has _____ shell for its _____. Every element in the second period has _____ for its _____. See the pattern?
5. Groups are _____ that run from _____ to _____.
6. The elements of a group have the same number of _____ in their _____ shell.
7. Every element in group one has _____ electron in its outer shell. Every element in group two has _____ electrons in its outer shell.
8. Click on Alkali Metals (left bar) and answer the following questions.
 - a. What is the group number? _____
 - b. Are these metals reactive? _____
 - c. Do these metals occur freely in nature? _____
 - d. How many electrons are in their outer shell? _____
9. Click on Noble Gases (left bar) and answer these questions.
 - a. What is the group number? _____
 - b. Why were these gases considered to be inert or stable? _____

Go To http://www.teachersdomain.org/asset/phy03_int_ptable/

1. Click on the "Mystery Elements" Tab. Solve the mystery elements in order and write them in:

- | | |
|----------|----------|
| a. _____ | g. _____ |
| b. _____ | h. _____ |
| c. _____ | i. _____ |
| d. _____ | j. _____ |
| e. _____ | k. _____ |
| f. _____ | l. _____ |

1. The basic unit of all matter is the _____.
2. All atoms are made of three types of particles _____, _____, and _____.
3. The _____ is used to identify an atom.
4. Protons are found in the _____ of atoms. They have a _____ charge.
5. What happens when the number of protons in an atom changes?
6. Where are neutrons found in an atom?
7. How can you calculate the number of neutrons in an atom?
8. How are isotopes formed?
9. What is the charge on an electron?
10. How can you calculate the number of electrons in an atom?
11. An atom can gain or lose electrons to become an _____.
12. A sodium atom has _____ protons and _____ electrons and a sodium ion would have _____ protons and _____ electrons.
13. The removal of an electron results in a _____ charge.
14. THINK!! If 2 electrons were removed from magnesium, what would the charge on magnesium be? _____
15. Atom that are involved in bonding are called _____ electrons.

Go To <http://periodictable.com/>

You can put the mouse cursor over the element for some of these answers
For the following and give:

Name	# protons	#neutrons	#electrons	Atomic Mass	Atomic Number	#valence electrons	#electron shells	density
------	-----------	-----------	------------	-------------	---------------	--------------------	------------------	---------

Ca								
Ga								
Pb								
Br								
Po								
B								
Kr								
Ne								

Go To http://www.teachersdomain.org/asset/phy03_int_ptable/

Click on the “Chemical Bonds” Tab.

1. What kind of bond do Sodium and Chlorine make? _____
 - a. When Sodium loses one valence electron, it becomes a _____.
 - b. When Chlorine gains an electron, it becomes a _____.
2. What kind of bond do Copper and Zinc make? _____
 - a. Metals often have _____ electrons in their outer shell.
 - b. When these electrons come loose, they can form an _____.
 - c. The electrons for a cloud. This could is _____ charged and attracts the _____ charged atoms.
 - d. Why are the atoms positively charged? _____
3. What kind of bond do Carbon and Oxygen make? _____
 - a. These atoms are (choose one) Metals-----Metalloids----nonmetals.
 - b. This bond is formed because these atoms _____ electrons.

Go to: http://www.teachersdomain.org/asset/lsp07_int_ionicbonding/

1. Describe what happens when two negatively charged particles interact with one another. (you can draw a diagram to help illustrate your ideas)
2. When will oppositely charged atoms stick together?

