## CHEMICAL BONDING An Introductory Webquest

## Go to:

http://tinyurl.com/ionicbondingtutorial

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?

- 3) A. What is an ion? (Look this up online)
  - B. What is a **cation** and where can you find it on the periodic table?
  - C. What is an **anion** and where can you find it on the periodic table?
- 4) Take a look at the ionic bond formed between Sodium and Chlorine atoms.
  - A. *Draw* each atom below as it looks like in NaCl on the website.
- B. Label the Na and Cl as either + or -. And label each as either Cation or Anion.

Name:	Period:	Seat #:

5) Describe how ionic compounds form crystals:

## **COVALENT BONDS** Go to:

http://tinyurl.com/covalentbondingtutorial

- 6) If an atom, such as hydrogen, is able to form a covalent bond, describe what happens when the electron shells of two atoms overlap:
  - A. What happens when the two atoms are fairly close?
  - B. What happens when the two atoms are TOO close?
- 7) What does the nucleus of an atom want to do to its own electrons?
- 8) What does the nucleus of one atom want to do to the electrons of a nearby atom?
- 9) Are the atoms really "sharing" electrons?

10) What type of atoms form covalent bonds?	15) Fill this column with a paragraph, or paragraphs, that summarize in detail what you learned.
11) Draw a graph showing the change in potential energy when atoms form covalent bonds.	
12) What happens to the stability of atoms when they	
form covalent bonds?	
13) A line can be used to represent a covalent bond between two atoms. Diagram pairs of atoms that can form single, double, and triple bonds.	
14) Can every atom form each of these kinds of bonds? Explain.	