

- 1) The most stable elements are _____.
- 2) Why do atoms become ions?
- 3) To form a cation, a metal must do what?
- 4) When two or more ions come together, what is this new substance known as?
- 5) Ionic bonds are very weak/strong and it would take a lot of/very little energy to break these bonds. (circle)
- 6) Most ionic compounds (salts) are liquids at room temperature. True or False?
- 7) In metallic bonds, electrons are able to _____.
- 8) A term we use to describe freely moving electrons is _____.
- 9) Why are metals able to conduct electricity and heat so well?
- 10) What term describes the ability to stretch a metal into wires?
- 11) Which bond forms when nonmetals share electrons?
- 12) Why do nonmetals share electrons?
- 13) What does a Lewis Structure help us to see?
- 14) Write the Lewis Structures of the following compounds

O_2 CH_4 NF_3 SO_4^{2-}
- 15) Why is carbon found in many organic molecules?
- 16) How many types of covalent bonds can carbon form?
- 17) A polymer is a large molecule made of many _____.
- 18) Organic polymers include which of the following:

sugars
starches
lipids

salts
amino acids
proteins
carbohydrates
- 19) Amino acids are the basic pieces of _____.
- 20) What do we call the forces holding molecules together?
- 21) What do we call forces that keep separate molecules near each other?
- 22) Complete the table below:

State	Density	Motion	Shape	IMF Strength
solid				
liquid				
gas				