

Assignment #2 - Main Group Nonmetals

Name: _____

Wooster Honor Chemistry

Date: _____ Period: _____

- Using colored pencils or crayons, color the following on your periodic table as noted below:
 - Helium, Neon, Argon, Krypton, Xenon, Radon, and Oganesson = PURPLE (= noble gases)
 - Fluorine, Chlorine, Bromine, Iodine, Astatine, and Tennessine = BLUE
 - Carbon, Nitrogen, Oxygen, Phosphorus, Sulfur, and Selenium = LIGHT BLUE (or aqua)
 - Hydrogen = Pink
- Write in pencil at the bottom of your periodic table: Halogens make ions with 1- charges, and then circle where you wrote "Halogens" with your BLUE colored pencil or crayon.
- Write in pencil at the bottom of your periodic table: Oxygen, Sulfur, and Selenium make ions with 2- charges, and then circle where you wrote "Oxygen, Sulfur, and Selenium" with your LIGHT BLUE (or aqua) colored pencil or crayon.
- Write in pencil at the bottom of your periodic table: Nitrogen and Phosphorus make ions with 3- charges, and then circle where you wrote "Nitrogen and Phosphorus" with your LIGHT BLUE (or aqua) colored pencil or crayon.
- Complete the following table:

Atomic number	Element name	Element symbol	Ion name	Ion symbol	Charge of ion	Atomic mass of element
1	Hydrogen	H	Hydrogen ion	H ⁺	1+	1.008
6	Carbon	C	N/A	N/A	N/A	12.011
7	Nitrogen		Nitride	N ³⁻	3-	
8			Oxide			
	Fluorine					
		Ne	N/A	N/A	N/A	
			Phosphide			
16				S ²⁻		
			Chloride	Cl ⁻	1-	35.453
	Argon		N/A	N/A	N/A	
		Se	Selenide			
				Br ⁻		
			N/A	N/A	N/A	83.798
53			Iodide			

- Use this word bank to fill in the following sentences (not all words will be used):

positive	negative	halogens	noble gases
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- ✓ With the exceptions of hydrogen, carbon and the noble gases, all main group nonmetals form _____ ions and get the -ide suffix for their ion names.
- ✓ Neon and Argon belong to the family of _____.
- ✓ All _____ form ions with 1- charges.