



### Periodic Table Trends 101 Video Review

1. List the trends in the periodic table we will be covering today.
  - Number of
  - Types of
  - Location and properties of
  - Phases
2. What are valence electrons? \_\_\_\_\_
3. How many valence electrons do the following elements have:  
Be = \_\_\_\_ Cl = \_\_\_\_ Al = \_\_\_\_ Si = \_\_\_\_ S = \_\_\_\_ K = \_\_\_\_ Ne = \_\_\_\_  
He = \_\_\_\_ C = \_\_\_\_ F = \_\_\_\_ Ar = \_\_\_\_ Mg = \_\_\_\_ H = \_\_\_\_
4. How do elements get a positive charge? \_\_\_\_\_  
\_\_\_\_\_ These elements are called \_\_\_\_\_
5. How do elements get a negative charge? \_\_\_\_\_  
\_\_\_\_\_ These elements are called \_\_\_\_\_
6. What type of ion do the following elements form in a chemical bond:  
Be = \_\_\_\_ Cl = \_\_\_\_ Al = \_\_\_\_ Si = \_\_\_\_ S = \_\_\_\_ K = \_\_\_\_ Ne = \_\_\_\_  
He = \_\_\_\_ C = \_\_\_\_ F = \_\_\_\_ Ar = \_\_\_\_ Mg = \_\_\_\_ H = \_\_\_\_
7. Why do elements in the 18<sup>th</sup> group have a charge of 0? \_\_\_\_\_  
\_\_\_\_\_
8. Most of the metals on the periodic table are located \_\_\_\_\_  
Most of the nonmetals on the periodic table are located \_\_\_\_\_  
except for \_\_\_\_\_. Metalloids are located \_\_\_\_\_

	State at room temperature	Appearance	Conductivity – ability to conduct electricity	Malleability – able to be bent out of shape without overheating Ductility – can be drawn into thin wires
<u><b>Metals</b></u>				
<u><b>Nonmetals</b></u>				
<u><b>Metalloids</b></u> <u><b>(Semi-conductors)</b></u>				

9. Most metals are \_\_\_\_\_ at room temperature except for \_\_\_\_\_ which is a \_\_\_\_\_ at room temperature. Most nonmetals are \_\_\_\_\_ at room temperature except for \_\_\_\_\_ which is a \_\_\_\_\_ at room temperature. All metalloids are \_\_\_\_\_ at room temperature.

**Check for Understanding** – Use your notes and knowledge of Periodic Table trends to answer the following:

- What are valence electrons? \_\_\_\_\_ What do they help determine? \_\_\_\_\_
- Give the number of valence electrons for the following elements:  
Ca = \_\_\_\_\_ O = \_\_\_\_\_ Ar = \_\_\_\_\_ C = \_\_\_\_\_ Na = \_\_\_\_\_ Al = \_\_\_\_\_ P = \_\_\_\_\_
- What trend do you see in ionic charges as you go from left to right on the periodic table? \_\_\_\_\_
- Elements that lose electrons have a \_\_\_\_\_ charge, while elements that gain electrons have a \_\_\_\_\_ charge.
- What trend do you notice in metals, nonmetals, and metalloids as you move from left to right on the periodic table? \_\_\_\_\_ Most elements are \_\_\_\_\_, while the fewest are \_\_\_\_\_.
- Compare and contrast the properties of metals and nonmetals. \_\_\_\_\_
- What properties of metalloids often make them a mix between metals and nonmetals? \_\_\_\_\_
- Most metals tend to be \_\_\_\_\_ at room temperature except for \_\_\_\_\_, while most nonmetals tend to be \_\_\_\_\_ at room temperature except for \_\_\_\_\_.

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