

Periodic Table Trends Practice

Name: _____ Per: _____ Date: _____

Learning Goal: *I can explain how the periodic table is organized and the importance of the groups and periods in recognizing atomic and electronic patterns.*

C: Answer the following questions.

1. Which family does Chlorine belong to? _____
 2. Which period does Helium belong to? _____
 3. Which family does Argon belong to? _____
 4. Which period and group does Silicon belong to? _____
 5. Name the element with 7 valence electrons in its 3rd energy level. _____
 6. Name the element with 2 valence electrons in its 2nd energy level. _____
 7. Name the element with 4 valence electrons in its 2nd energy level. _____
 8. Given the Lewis dot structure, which family does $\text{L} \cdot$ belong to? _____
 9. Draw a Lewis dot for Nitrogen: _____
 10. Draw a Lewis dot for Beryllium: _____
 11. Name the group number for the halogens on the periodic table. _____
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B:

1. List and describe the characteristic and position on the periodic table of *metals*.
2. List and describe the characteristic and position on the periodic table of *nonmetals*.
3. List and describe the characteristic and position on the periodic table of *metalloids*.
4. List and describe the characteristic and position on the periodic table of *alkali metals*.
5. List and describe the characteristic and position on the periodic table of *halogens*.
6. List and describe the characteristic and position on the periodic table of *noble gasses*.

Name: _____

Period: _____

The Atom Board

Protons - blue marbles.

Neutrons - red marbles.

Electrons - small marbles.

Make each of the following atoms. Make sure you make the right element and isotope.

Make sure you have the correct number of electrons in the correct orbits (also called levels or shells)..

As you make each atom be sure to observe how each element looks.

With close observation you will begin to see how and why the periodic table is constructed.

PERIOD #
Valence e⁻
Group #

Element	Mass #	Atomic #	# of Neutrons	# of Protons	# of Electrons	# of full electron levels	Row on the Periodic Table	# of electrons in outer level	Column on the Periodic Table
Hydrogen 1									
Helium 4									
Lithium 6									
Lithium 7									
Carbon 14									
Oxygen 17									
Fluorine 19									
Neon 20									
Sodium 21									
Magnesium 25									
Chlorine 35									

Questions:

1. How are the electron levels and rows of the Periodic Table related?

2. How are the number of electrons in the outer level and columns of the Periodic Table related?

4. If I have 1 full shell (energy level) of electrons and 2 in the outer shell, what element am I?

5. If I have 3 full shells of electrons what am I?