

Chapter 5: Periodic Table Review Answer Key

1. Draw Lewis Dot structures for elements 1-20.

H·	He·	·Li·	Be·	·B·
·C·	··			
Na·	Mg·	·Al·	·Si·	·P·

2. How did Mendeleev arrange the Periodic Table?

Mendeleev arranged the Periodic Table according to increasing atomic mass.

3. How is the current periodic table organized?

The current Periodic Table is organized according to increasing atomic number (Mosely did this).

4. What does the Periodic Law state?

Properties of elements repeat in a predictable way when atomic numbers are used to arrange elements into groups.5. The periodic table is arranged horizontally into rows called **periods**. There are a total of **7** periods.6. The period is directly related to the number of **energy levels**.7. The periodic table is arranged vertically into families or **groups**. There are a total of **18** groups. Elements in the same group have similar physical and chemical **characteristics**.8. The group number is directly related to the number of **valence** electrons.9. Elements are classified as **Metals**, **Nonmetals**, and **Metalloids**.

10. List 3 characteristics of metals:

1.) Metals are good conductors of heat and electric current.**2.) Metals are usually solids at room temperature.****3.) Metals are ductile (easily bent).**

11. List 3 characteristics of nonmetals.

1.) Nonmetals are poor conductors of heat and electric current.**2.) Nonmetals are usually gases at room temperature.****3.) Nonmetals that are solid at room temperature are brittle (they shatter/crumble when hit with a hammer).**12. What are metalloids? **Metalloids are elements that fall between metals and nonmetals on the Periodic Table; they have properties of both metals and nonmetals, however their properties are**

