Name _____

The Periodic Table Puzzle: Groups, Periods, and Chemical Properties

Multiple Choice Questions

1. What does an element's position in a group on the periodic table primarily determine?

a) Its atomic number

b) Its atomic mass

c) Its chemical properties

d) Its state at room temperature

2. Which part of the periodic table represents a new energy level or shell of electrons for elements?

a) Groups

b) Periods

c) Transition metals

d) Noble gases

3. Elements within the same group share similar chemical properties because they have the same number of:

a) Neutrons

b) Protons

c) Valence electrons

d) Electrons in all energy levels

4. What is the significance of an element's position in a period on the periodic table?

a) It determines its group number.

b) It reflects the number of valence electrons.

c) It indicates its atomic mass.

d) It shows its state at room temperature.

5. Which group of elements is highly reactive with water and forms alkaline solutions when they react?

a) Noble gases (Group 18)

b) Alkali metals (Group 1)

c) Halogens (Group 17)

d) Transition metals (Groups 3-12)