

Periodic Table Elements: A Chemistry Study Guide

Chemistry · Practice Test · 20 Questions

1. What fundamental property determines the order of elements in the periodic table?

- A) Number of Neutrons
- B) Number of Protons
- C) Number of Electrons
- D) Atomic Mass

2. Elements in the same vertical column of the periodic table are known as:

- A) Periods
- B) Groups
- C) Blocks
- D) Series

3. Which of the following is a characteristic of alkali metals (Group 1)?

- A) They are noble gases.
- B) They are highly reactive metals.
- C) They are non-metals.
- D) They are usually found as liquids at room temperature.

4. What do we call the horizontal rows in the periodic table?

- A) Groups
- B) Periods
- C) Columns
- D) Families

5. Noble gases (Group 18) are known for their:

- A) High reactivity.
- B) Tendency to form positive ions.
- C) Low reactivity.
- D) Being solid at room temperature.

6. Which element is a metalloid?

- A) Oxygen
- B) Iron
- C) Silicon
- D) Sodium

7. What trend is observed in atomic radius as you move from left to right across a period?

- A) It increases.
- B) It decreases.
- C) It remains constant.
- D) It fluctuates unpredictably.

8. Which of these is a halogen (Group 17)?

- A) Calcium
- B) Chlorine
- C) Potassium
- D) Argon

9. Transition metals are typically located in which block of the periodic table?

- A) s-block
- B) p-block
- C) d-block
- D) f-block

10. What is the most electronegative element?

- A) Fluorine
- B) Oxygen
- C) Chlorine
- D) Nitrogen

11. Lanthanides and actinides are collectively known as:

- A) Alkali metals.
- B) Alkaline earth metals.
- C) Halogens.
- D) Inner transition metals.

12. Which of the following is an example of a non-metal?

- A) Magnesium
- B) Sulfur
- C) Copper
- D) Aluminum

13. As you move down a group, the number of electron shells:

- A) Decreases.
- B) Increases.
- C) Stays the same.
- D) Varies randomly.

14. What is the atomic number of an element equal to?

- A) The number of neutrons.
- B) The number of protons.
- C) The number of valence electrons.
- D) The mass number.

15. Which element has the symbol 'Fe'?

- A) Fluorine
- B) Iron
- C) Fermium
- D) Francium

16. Elements with similar chemical properties are grouped together in:

- A) Periods.
- B) Blocks.
- C) Groups.
- D) Series.

17. What is the common name for Group 2 elements?

- A) Alkali metals.
- B) Alkaline earth metals.
- C) Halogens.
- D) Noble gases.

18. Which trend is observed in ionization energy as you move up a group?

- A) It decreases.
- B) It increases.
- C) It remains constant.
- D) It fluctuates.

19. The periodic law states that the chemical properties of elements are periodic functions of their:

- A) Atomic mass.
- B) Atomic number.
- C) Number of neutrons.
- D) Electron configuration.

20. Which element is a liquid at room temperature and pressure?

- A) Gold
- B) Mercury
- C) Silver
- D) Iron