

# Periodic Table Elements: A Chemistry Study Guide

Chemistry · Answer Key · 20 Questions

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**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