

Fundamental Scientific Principles

Basic Science · Answer Key · 8 Questions

1. Which fundamental force is responsible for holding the nucleus of an atom together, overcoming the electrostatic repulsion between protons?

- A) Gravitational Force
- B) Electromagnetic Force
- C) Weak Nuclear Force
- D) Strong Nuclear Force**

2. The process by which plants convert light energy into chemical energy in the form of glucose is known as:

- A) Respiration
- B) Transpiration
- C) Photosynthesis**
- D) Fermentation

3. What is the chemical symbol for gold, a noble metal renowned for its historical and economic significance?

- A) Ag
- B) Au**
- C) Fe
- D) Cu

4. According to Newton's Third Law of Motion, for every action, there is an equal and opposite:

- A) Inertia
- B) Momentum
- C) Reaction**
- D) Acceleration

5. The unit of electrical resistance, named after a German physicist, is called the:

- A) Ampere
- B) Volt
- C) Watt
- D) Ohm**

6. Which planet in our solar system is known for its prominent ring system, composed primarily of ice particles?

A) Jupiter

B) Saturn

C) Uranus

D) Neptune

7. The primary gas that makes up Earth's atmosphere, essential for respiration, is:

A) Carbon Dioxide

B) Nitrogen

C) Oxygen

D) Argon

8. What is the process by which a solid changes directly into a gas without passing through the liquid phase?

A) Evaporation

B) Condensation

C) Sublimation

D) Melting