

Middle School Science Fundamentals

Basic Science · Answer Key · 18 Questions

1. Which organelle is responsible for generating most of the cell's supply of adenosine triphosphate (ATP), used as a source of chemical energy?

- A) Nucleus
- B) Ribosome
- C) Mitochondrion**
- D) Endoplasmic reticulum

2. What is the chemical symbol for gold?

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

3. The process by which plants absorb sunlight and convert it into chemical energy is called:

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

4. What is the unit of measurement for electrical resistance?

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

5. Which layer of the Earth's atmosphere is closest to the surface?

- A) Stratosphere
- B) Mesosphere
- C) Thermosphere
- D) Troposphere**

6. What type of rock is formed from the cooling and solidification of molten rock (magma or lava)?

- A) Sedimentary
- B) Metamorphic
- C) Igneous**
- D) Crystalline

7. Which subatomic particle has a positive charge?

- A) Electron
- B) Neutron
- C) Proton**
- D) Photon

8. What is the primary function of red blood cells?

- A) Fighting infection
- B) Clotting blood
- C) Transporting oxygen**
- D) Producing antibodies

9. The measure of how hot or cold something is, based on the average kinetic energy of its particles, is known as:

- A) Heat
- B) Pressure
- C) Volume
- D) Temperature**

10. What force keeps planets in orbit around the Sun?

- A) Electromagnetic force
- B) Strong nuclear force
- C) Gravitational force**
- D) Friction

11. Which gas makes up the largest percentage of the Earth's atmosphere?

- A) Oxygen
- B) Carbon dioxide
- C) Nitrogen**
- D) Argon

12. What is the process by which water vapor in the atmosphere condenses to form liquid water droplets, leading to cloud formation?

- A) Evaporation
- B) Precipitation
- C) Sublimation
- D) Condensation**

13. What is the common name for the chemical compound H₂O?

- A) Salt
- B) Sugar
- C) Water**
- D) Vinegar

14. Which of the following is a conductor of electricity?

- A) Rubber
- B) Plastic
- C) Wood
- D) Copper**

15. What are the basic building blocks of matter called?

- A) Molecules
- B) Elements
- C) Compounds
- D) Atoms**

16. The bending of light as it passes from one medium to another is known as:

- A) Reflection
- B) Diffraction
- C) Refraction**
- D) Dispersion

17. What is the process where a liquid turns into a gas?

- A) Condensation
- B) Freezing
- C) Melting
- D) Evaporation**

18. Which part of a plant is responsible for absorbing water and nutrients from the soil?

- A) Stem
- B) Leaves
- C) Flower
- D) Roots**