

Physics Fundamentals for Teens

Physics · Answer Key · 15 Questions

1. What is the SI unit for measuring force?

- A) Joule
- B) Newton**
- C) Watt
- D) Pascal

2. Which state of matter has a definite shape and a definite volume?

- A) Gas
- B) Liquid
- C) Plasma
- D) Solid**

3. What is the speed of light in a vacuum approximately equal to?

- A) 300,000 km/s**
- B) 1,000 km/s
- C) 50,000 km/s
- D) 1,000,000 km/s

4. Which law states that for every action, there is an equal and opposite reaction?

- A) Newton's First Law
- B) Newton's Second Law
- C) Newton's Third Law**
- D) Archimedes' Principle

5. What is the primary unit used to measure electric current?

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

6. What is the term for the energy an object possesses due to its motion?

- A) Potential energy
- B) Kinetic energy**
- C) Thermal energy
- D) Chemical energy

7. Which subatomic particle carries a negative electric charge?

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

8. What is the definition of power in physics?

- A) Force applied over time
- B) Work done per unit time**
- C) Total distance traveled
- D) Energy stored in a system

9. Which part of the electromagnetic spectrum has the longest wavelength?

- A) Gamma rays
- B) Visible light
- C) Radio waves**
- D) X-rays

10. What happens to the temperature of a substance during a phase change?

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

11. What is the acceleration due to gravity on Earth approximately?

- A) 4.9 m/s²
- B) 9.8 m/s²**
- C) 19.6 m/s²
- D) 1.6 m/s²

12. Which simple machine is a rigid bar that pivots on a fulcrum?

- A) Pulley
- B) Lever**
- C) Inclined plane
- D) Screw

13. What does the Law of Conservation of Energy state?

- A) Energy can be created
- B) Energy is destroyed by friction
- C) Energy cannot be created or destroyed**
- D) Energy only exists as heat

14. What is the measure of an object's resistance to a change in its state of motion?

A) Mass

B) Weight

C) Density

D) Volume

15. What type of lens is used to correct nearsightedness?

A) Concave lens

B) Convex lens

C) Cylindrical lens

D) Bifocal lens