

Physics Fundamentals for Teens

Physics · Practice Test · 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/s^2
- B) 9.8 m/s^2
- C) 19.6 m/s^2
- D) 1.6 m/s^2

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