

1. What is matter defined as at its most basic level?

- A. Anything that has mass and occupies space
- B. A form of energy
- C. Only visible objects
- D. Substances that do not have mass

2. Which of the following is NOT a fundamental particle that makes up an atom?

- A. Protons
- B. Neutrons
- C. Quarks
- D. Electrons

3. What determines the properties of a substance formed by atoms?

- A. The arrangement of protons, neutrons, and electrons within the atom
- B. The color of the atom
- C. The size of the atom
- D. The temperature outside the atom

4. In which state of matter are particles closely packed and vibrate in place?

- A. Solid
- B. Liquid
- C. Gas
- D. Plasma

5. What allows liquids to flow and take the shape of their container?

- A. The weak forces between particles and their ability to move freely
- B. The strong forces between particles that keep them fixed
- C. The energy of particles allowing them to move around each other while staying closely packed
- D. The absence of particles

6. Which of the following is NOT a common example of a liquid?

- A. Water
- B. Oil
- C. Mercury
- D. Air

7. What state of matter occurs at extremely high temperatures?

- A. Solid
- B. Liquid
- C. Plasma
- D. Bose-Einstein condensate

8. Which of the following is a physical property of matter?

- A. Flammability
- B. Mass
- C. Reactivity with acids
- D. Ability to rust

9. Which state of matter occurs at temperatures near absolute zero?

- A. Solid
- B. Liquid
- C. Gas
- D. Bose-Einstein condensate

10. What is the primary difference between physical and chemical properties of matter?
- A. Physical properties can be observed without changing the composition of matter, while chemical properties cannot.
 - B. Physical properties are only related to color, while chemical properties are related to mass.
 - C. Physical properties are unique to gases, while chemical properties are unique to solids.
 - D. Physical properties describe how matter interacts with other substances, while chemical properties describe the composition of matter.
11. What is matter defined as at its most basic level?
- A. Anything that has mass and occupies space.
 - B. Only visible objects like rocks and metals.
 - C. Energy without physical substance.
 - D. A form of light or radiation.
12. Which of the following is NOT considered a fundamental particle of an atom?
- A. Proton
 - B. Neutron
 - C. Photon
 - D. Electron
13. In solids, particles are primarily characterized by which of the following?
- A. Moving freely and expanding.
 - B. Closely packed and vibrating in place.
 - C. Far apart with no fixed arrangement.
 - D. Changing shape without changing volume.
14. Which state of matter allows substances to flow but maintain a constant volume?
- A. Solid
 - B. Liquid
 - C. Gas
 - D. Plasma
15. What happens to the particles in a gas compared to those in a liquid?
- A. They are more closely packed and move less freely.
 - B. They are spread out and move freely with weak forces.
 - C. They have no energy and remain stationary.
 - D. They form a rigid lattice structure.
16. Which exotic state of matter occurs at extremely high temperatures?
- A. Bose-Einstein condensate
 - B. Superfluid
 - C. Plasma
 - D. Ferromagnetic
17. Which of the following is an example of a physical property of matter?
- A. Flammability
 - B. Density
 - C. Reactivity with acids
 - D. Ability to rust
18. What determines the properties of a substance made from atoms?
- A. The number of electrons
 - B. The arrangement of protons, neutrons, and electrons
 - C. The color of the atoms
 - D. The speed of light

19. Which state of matter is described by particles that are far apart and move freely?

- A. Solid
- B. Liquid
- C. Gas
- D. Plasma

20. What is the freezing point of water at standard atmospheric pressure?

- A. -100°C
- B. 0°C
- C. 100°C
- D. 212°C

21. What is the most basic definition of matter?

- A. Anything that has mass and occupies space
- B. A form of energy that exists in the universe
- C. Only visible objects like rocks and metals
- D. The substance that makes up living organisms

22. Which of the following is NOT considered a fundamental particle of an atom?

- A. Proton
- B. Neutron
- C. Electron
- D. Photon

23. What determines the properties of a substance formed by atoms?

- A. The size of the atoms
- B. The arrangement of protons, neutrons, and electrons within the atom
- C. The color of the atoms
- D. The speed at which atoms move

24. In which state of matter are particles closely packed but can move around each other?

- A. Solid
- B. Liquid
- C. Gas
- D. Plasma

25. What is the primary characteristic of a solid?

- A. Fixed shape and volume
- B. Expands to fill its container
- C. Flows freely without a fixed shape
- D. Exists only at extremely high temperatures

26. Which state of matter allows particles to move freely and spread out?

- A. Solid
- B. Liquid
- C. Gas
- D. Bose-Einstein condensate

27. What is plasma?

- A. A state of matter at extremely high temperatures
- B. A type of liquid with no fixed shape
- C. A solid that can conduct electricity
- D. A gas that is highly compressed

28. Which of the following is a chemical property of matter?

- A. Density
- B. Color
- C. Freezing point
- D. Reactivity with other substances

29. What is the boiling point of water at standard atmospheric pressure?

- A. 0°C
- B. 100°C
- C. 212°F
- D. -273°C

30. Which state of matter occurs near absolute zero?

- A. Solid
- B. Liquid
- C. Gas
- D. Bose-Einstein condensate

31. What is matter defined as at its most basic level?

- A. Anything that has mass and occupies space
- B. A form of energy that cannot be seen
- C. Only living organisms and their components
- D. The substance that makes up light and sound

32. Which of the following is NOT one of the fundamental particles that make up an atom?

- A. Protons
- B. Neutrons
- C. Photons
- D. Electrons

33. What determines the properties of a substance formed by an atom?

- A. The size of the atom
- B. The arrangement of protons, neutrons, and electrons within the atom
- C. The color of the atom
- D. The speed at which the atom moves

34. Which state of matter has particles that are closely packed and vibrate in place?

- A. Liquid
- B. Gas
- C. Solid
- D. Plasma

35. What allows liquids to flow and take the shape of their container?

- A. The particles are spread out and move freely
- B. The particles are closely packed but have enough energy to move around each other
- C. The particles are in a fixed position and cannot move
- D. The particles are only found in pairs

36. Which of the following is an example of a gas?

- A. Ice
- B. Mercury
- C. Oxygen
- D. Rock

37. What is plasma?

- A. A state of matter that occurs at extremely high temperatures
- B. A type of chemical reaction
- C. A form of energy that does not occupy space
- D. A state of matter that only exists in liquids

38. Which of the following is a physical property of matter?

- A. Reactivity with acids
- B. Density
- C. Ability to rust
- D. Combustibility

39. What is the boiling point of water at standard atmospheric pressure?

- A. -100°C
- B. 0°C
- C. 100°C
- D. 212°C

40. Which state of matter occurs at temperatures near absolute zero?

- A. Solid
- B. Liquid
- C. Gas
- D. Bose-Einstein condensate

41. What is matter defined as in the text?

- A. Anything that has mass and occupies space
- B. Energy that cannot be observed
- C. A type of radiation
- D. The force that holds particles together

42. Which of the following is NOT mentioned as a fundamental particle of an atom in the text?

- A. Proton
- B. Neutron
- C. Quark
- D. Electron

43. In solids, how are the particles arranged?

- A. Closely packed and vibrating in place
- B. Spread far apart and moving freely
- C. Only moving in straight lines
- D. Randomly scattered with no fixed pattern

44. What determines the states of matter (solid, liquid, gas) according to the text?

- A. The energy of the particles and the forces between them
- B. The color and density of the substance
- C. The temperature of the surroundings only
- D. The number of atoms present

45. Which state of matter allows substances to flow and take the shape of their container?

- A. Solid
- B. Liquid
- C. Gas
- D. Plasma

46. What is an example of a gas mentioned in the text?

- A. Ice
- B. Oxygen
- C. Mercury
- D. Rock

47. Which exotic state of matter occurs at extremely high temperatures?

- A. Solid
- B. Liquid
- C. Plasma
- D. Bose-Einstein condensate

48. What are physical properties of matter?

- A. Characteristics that can be observed without changing the substance's composition
- B. Changes that occur during chemical reactions
- C. Forces that hold particles together
- D. The ability to conduct electricity

49. Which of the following is NOT a physical property of matter?

- A. Mass
- B. Volume
- C. Reactivity
- D. Density

50. What is a chemical property of matter?

- A. The ability to change shape
- B. The freezing point of a substance
- C. How it interacts with other substances
- D. Its color