

1. 1. What is the most basic definition of matter?
  - A. Anything that has mass and occupies space
  - B. A substance that only exists in solids
  - C. Energy without physical form
  - D. A type of radiation

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

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

3. 3. 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 temperature outside the atom

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

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

5. 5. Which of the following is a characteristic of a solid?

- A. Fixed shape and volume
- B. Expands to fill its container
- C. Particles move completely freely
- D. No defined structure

6. 6. What is the state of matter where particles are spread out and move freely?

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

7. 7. Which of the following is an example of a liquid?

- A. Rock
- B. Air
- C. Water
- D. Ice

8. 8. What is plasma primarily associated with?

- A. Extremely high temperatures
- B. Absolute zero temperature
- C. Low atmospheric pressure
- D. Solid-state electronics



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

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

10. 10. What is the temperature at which water boils under standard atmospheric pressure?

- A.  $-100^{\circ}\text{C}$
- B.  $0^{\circ}\text{C}$
- C.  $100^{\circ}\text{C}$
- D.  $212^{\circ}\text{C}$

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

- A. Anything that has mass and occupies space
- B. Energy that cannot be observed
- C. A form of light
- D. A theoretical concept in physics

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

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

13. 13. 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 temperature outside the atom

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

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

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

- A. Particles are spread out and move freely
- B. Particles are closely packed but have enough energy to move around each other
- C. Particles are in a fixed arrangement with no movement
- D. Particles are only found in clusters

16. 16. Which state of matter allows gases to expand and fill their container?
- A. Particles are closely packed and vibrate in place
  - B. Particles are closely packed but can move around each other
  - C. Particles are spread out and move freely with weak forces between them
  - D. Particles are arranged in a crystalline structure



17. 17. What is an example of a plasma state of matter?

- A. Ice
- B. Lightning
- C. Mercury
- D. Water vapor

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

- A. Mass
- B. Ability to react with oxygen
- C. Combustibility
- D. Reactivity with acids

19. 19. What is a key difference between physical and chemical properties?

- A. Physical properties can be observed without changing the composition of matter, while chemical p
- B. Physical properties only apply to solids, while chemical properties apply to liquids and gases
- C. Chemical properties describe the shape and volume of matter, while physical properties describe i
- D. Physical properties are only relevant in high-temperature environments, while chemical properties

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

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

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

- A. Anything that has mass and occupies space
- B. A form of energy that does not take up space
- C. Only visible objects like rocks and metals
- D. Substances that can only exist in liquid form

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

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

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

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

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

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



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

- A. Particles are closely packed but can move around each other
- B. Particles are spread out and move freely
- C. Particles are in a fixed, rigid arrangement
- D. Particles have no energy

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

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

27. 27. What is the state of matter that occurs at extremely high temperatures?

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

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

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

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

- A.  $-100^{\circ}\text{C}$
- B.  $0^{\circ}\text{C}$
- C.  $100^{\circ}\text{C}$
- D.  $200^{\circ}\text{C}$

30. 30. Which of the following describes a chemical property of matter?

- A. The boiling point of a substance
- B. The ability of a substance to undergo a chemical reaction
- C. The color of a substance
- D. The density of a substance

31. 31. What is the most basic definition of matter?

- A. Anything that has mass and occupies space
- B. A form of energy that cannot be seen
- C. The substance that makes up living organisms only
- D. A theoretical concept without physical existence

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

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



33. 33. What determines the properties of a substance made up of atoms?

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

34. 34. In which state of matter are particles closely packed but able to move around each other?

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

35. 35. What is the primary difference between solids and liquids?

- A. Solids have a fixed volume, while liquids do not
- B. Solids have a fixed shape, while liquids take the shape of their container
- C. Solids are made of different particles than liquids
- D. Liquids have higher energy particles than solids

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

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

37. 37. What is the state of matter that occurs at extremely high temperatures?

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

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

- A. Flammability
- B. Density
- C. Reactivity
- D. Corrosiveness

39. 39. What is the state of matter that occurs at temperatures near absolute zero?

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

40. 40. Which property describes how matter interacts with other substances?

- A. Physical property
- B. Chemical property
- C. Thermal property
- D. Mechanical property



41. 41. What is the most basic definition of matter?
- A. Anything that has mass and occupies space
  - B. Energy that can be seen or touched
  - C. A type of wave that travels through the universe
  - D. A form of light that interacts with particles

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

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

43. 43. 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 temperature outside the atom

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

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

45. 45. Which of the following is a characteristic of solids?

- A. Particles are spread out and move freely
- B. Particles are closely packed and vibrate in place
- C. Particles flow and take the shape of their container
- D. Particles are highly energetic and repel each other

46. 46. What allows liquids to maintain a constant volume?

- A. Strong forces between particles
- B. Weak forces between particles
- C. Particles moving freely and spreading out
- D. Particles being in a fixed arrangement

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

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

48. 48. What is an example of a physical property of matter?

- A. The ability to rust
- B. The freezing point of water
- C. The reaction with oxygen
- D. The ability to combust



49. 49. Which of the following describes how matter interacts with other substances?

- A. Physical properties
- B. Chemical properties
- C. Both physical and chemical properties
- D. Neither physical nor chemical properties

50. 50. What state of matter occurs at temperatures near absolute zero?

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