



Q1. Which of the following is a primary focus of chemistry?

Q2. Which of the following is an example of a chemical change?

Q3. What is the scientific method used for?

Q4. Which of the following is a physical property of matter?

Q5. What is the primary unit of mass in the SI system?

Q6. Matter is defined as anything that has:

Q7. What is the main form of energy in chemical reactions?

Q8. Which of the following is an example of a heterogeneous mixture?

Q9. Which of the following statements about the law of conservation of mass is true?

Q10. Which of the following represents a chemical property of a substance?

Q11. Which of the following is the smallest particle of an element?

Q12. The atomic number of an element is equal to the number of:

Q13. What is the mass number of an atom?

Q14. How many moles are in 12 grams of carbon-12?

Q15. Avogadro's number represents the number of particles in:

Q16. The periodic table is organized by:

Q17. Which of the following elements is a noble gas?

Q18. Which group in the periodic table contains the most reactive metals?

Q19. Which element is in period 3, group 17 of the periodic table?

Q20. Which of the following is true about elements in the same group of the periodic table?

Q21. An ion is:

Q22. What type of bond is formed when electrons are transferred from one atom to another?

Q23. Which of the following is the correct formula for sodium chloride?

Q24. Which of the following elements forms a +1 ion?

Q25. Which of the following compounds is ionic?

Q26. In an ionic bond, the atom that gains an electron becomes:

Q27. Which of the following is true about ionic compounds?

Q28. What is the charge of an oxide ion (O^{2-})?

Q29. Which of the following compounds contains polyatomic ions?

Q30. What is the name of the ion formed when a chlorine atom gains an electron?

Q31. What is the main difference between an ionic bond and a covalent bond?

Q32. What is the name of the compound with the formula CaCl_2 ?

Q33. What is the charge on a sulfate ion (SO_4^{2-})?

Q34. Which of the following elements is most likely to form a cation with a charge of +2?

Q35. What does the Roman numeral in the name of an ionic compound (e.g., iron (III) chloride) represent?

Q36. Which of the following is a correct ionic compound formula?

Q37. What type of ion is formed when a metal loses an electron?

Q38. Which of the following ions is isoelectronic with neon (Ne)?

Q39. What is the correct name for the ionic compound CuCl_2 ?

Q40. What type of ions are present in an ionic compound?

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