

Chemistry

C1 States of matter

C1.1 Solids, liquids and gases

Core

- 1 State the distinguishing properties of solids, liquids and gases
- 2 Describe the structures of solids, liquids and gases in terms of particle separation, arrangement and motion
- 3 Describe changes of state in terms of melting, boiling, evaporating, freezing and condensing
- 4 Describe the effects of temperature and pressure on the volume of a gas

Supplement

- 5 Explain changes of state in terms of kinetic particle theory

C2 Atoms, elements and compounds

C2.1 Elements, compounds and mixtures

Core

- 1 Describe the differences between elements, compounds and mixtures

Supplement

C2.2 Atomic structure and the Periodic Table

Core

- 1 Describe the structure of the atom as a central nucleus containing neutrons and protons, surrounded by electrons in shells
- 2 State the relative charges and relative masses of a proton, a neutron and an electron
- 3 Define proton number / atomic number as the number of protons in the nucleus of an atom
- 4 Define mass number / nucleon number as the total number of protons and neutrons in the nucleus of an atom
- 5 Determine the electronic configuration of elements with proton number 1 to 20, e.g. 2,8,3
- 6 State that:
 - (a) Group VIII noble gases have a full outer shell
 - (b) the number of outer-shell electrons is equal to the group number in Groups I to VII
 - (c) the number of occupied electron shells is equal to the period number

Supplement