

3 Chemical bonding – Part 1 —Answers

Answers

Work through these after trying the questions yourself.

3.1 The power of an atom to attract the electrons in a (covalent) bond towards itself.

3.2 Fluorine.

3.3 (a) it rises across a period \ (b) it falls down a group.

3.4 The electrostatic attraction between oppositely charged ions (positive cations and negative anions).

3.5 The outer electrons are delocalised and free to move through the metal, so they can carry a current.

3.6 A covalent bond in which both of the shared electrons come from the same atom.

3.7 Sodium has a low electronegativity and chlorine a high one, so the large difference lets chlorine pull sodium's electron right across —electrons are transferred, giving ions (ionic). The two chlorine atoms in Cl_2 are identical, so they pull equally and *share* the electrons —a covalent bond.