

2 Lewis diagrams and molecular shapes – Part 2 —Answers

Answers

Work through these after you have tried the questions yourself.

2.1 most atoms want eight outer electrons (an octet); hydrogen wants only two.

2.2 tetrahedral, with bond angles of 109.5° .

2.3 the oxygen has two lone pairs as well as two bonds; the lone pairs push the bonds closer together, bending the molecule.

2.4 the two C=O bond dipoles are equal and point in exactly opposite directions, so they cancel, leaving no overall dipole.

2.5 the electron pairs around the central atom spread out as far apart as possible.