

SC5 Ionic bonding



Personal learning checklist | 1 of 1

GCSE Edexcel Separate Sciences | Chemistry Papers 1 and 2

Name _____ Class _____ Date _____

Tick one box for each statement. Red: need help. Amber: partly confident.
Green: can do independently.

I can	Red	Amber	Green
Ions and electron transfer			
Explain cation and anion formation by electron loss or gain without changing proton number.	☐	☐	☐
Predict common ion charges and electronic configurations from main-group electron arrangements.	☐	☐	☐
Explain ionic bonding as electrostatic attraction between opposite ions, distinguishing it from electron transfer.	☐	☐	☐
Draw dot-and-cross diagrams for ionic formation with complete shells, brackets and charges.	☐	☐	☐
Ionic formulae			
Deduce simple ionic formulae from the smallest whole-number ratio that balances charges.	☐	☐	☐
Write formulae containing polyatomic ions, preserving groups with brackets where needed.	☐	☐	☐
Distinguish ionic ratios, formula subscripts and ion superscript charges.	☐	☐	☐
Explain compound name endings, distinguishing binary -ide names from oxygen-containing -ate groups.	☐	☐	☐
Lattices and properties			
Describe the three-dimensional ionic lattice and explain high melting and boiling points.	☐	☐	☐
Explain ionic electrical conduction in solid, molten and dissolved states using mobile ions.	☐	☐	☐
Explain ionic brittleness and recognise that solubility varies between compounds.	☐	☐	☐
Applying the model			
Use melting and conductivity evidence to identify ionic structures and distinguish metallic charge carriers.	☐	☐	☐
Predict ion movement to electrolysis electrodes and evaluate flat lattice representations.	☐	☐	☐

My next revision priority _____