

Bonding Activity Challenge Colouring Page

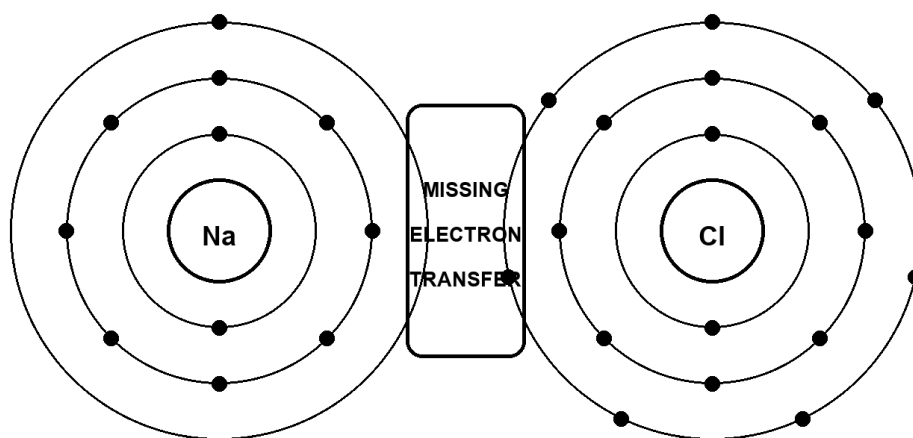
KS4 / GCSE / Year 11 - Chemistry

Add the missing electron-transfer arrow from sodium to chlorine, then colour-code the resulting ions and lattice.

IONIC BONDING: SODIUM CHLORIDE

Complete the missing electron-transfer arrow

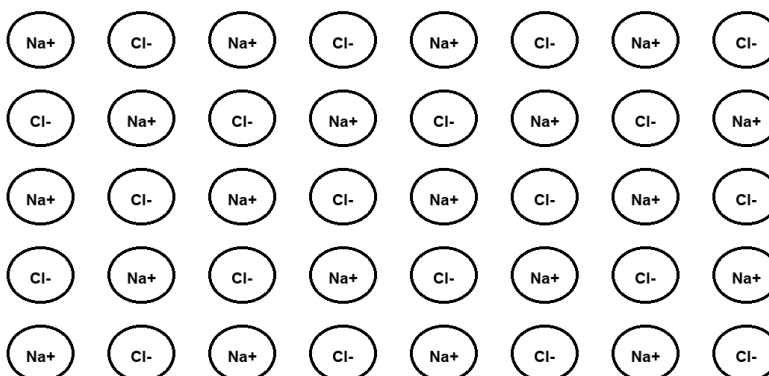
ATOMS BEFORE TRANSFER



IONS AND GIANT IONIC LATTICE

Na⁺ : 2,8

Cl⁻ : 2,8,8



oppositely charged ions attract in all directions

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Add the missing electron-transfer arrow from sodium to chlorine, then colour-code the resulting ions and lattice.

Parent & Teacher Guidance

Curriculum focus

Topic: Bonding. Develop accurate observation, subject vocabulary and evidence-based explanation. Mapped scope: DfE GCSE subject content and key stage 4 curriculum entitlement.

Before you begin

Review the picture together and ask the learner what they already notice about Bonding. Read the activity aloud, explain unfamiliar vocabulary, and agree which details need special attention.

Solo activity

The learner can complete the colouring independently, then use the finished page to explain three details linked to Bonding. Encourage accurate colour choices where they carry meaning, but allow creative choices elsewhere.

Group activity

Give pairs or small groups different areas to inspect. Ask them to agree on evidence before colouring, compare their findings, and present one curriculum fact to the class. Finish with a whole-group check against the guidance below.

Questions to guide discussion

What evidence can you see? Which feature is most important and why? How does one part connect to another? What new fact about Bonding can you explain using the picture?

Answers and checking

Sodium transfers one outer electron to chlorine, forming Na^+ with configuration 2,8 and Cl^- with 2,8,8. Oppositely charged ions are held by strong electrostatic attraction in a giant ionic lattice.

Learning record and next steps

☐ Completed the colouring

☐ Explained key vocabulary

☐ Completed the activity

☐ Used visible evidence

Evidence noticed / vocabulary used

Next step:
