


IMPROVING SECONDARY SCIENCE

RADAAR Planning Logic diagram


Research Anticipate

Key concepts and common misconceptions




- What are the prerequisite ideas that must be understood to access this topic?
- What are the most common misconceptions for this topic?
- Can you consult collections of common misconceptions, past examiner reports, or draw on your own, or colleagues' experience?

Language and vocabulary



- What is the key vocabulary for this unit?
- Is there any potentially confusing language you should avoid, such as key words that are also used in a non-scientific context?
- Which words do you have to be particularly precise about, because they're commonly misused, or used in the wrong context?

Links to previous topics



- Which ideas from previous topics link directly to this one, and how will you explicitly link to them?
- Have you encountered any common misconceptions from this topic in previous ones? How will you revisit and build on this?
- How will you activate prior knowledge?

Diagnose Address

Uncover and diagnose



- How will you uncover the misconceptions that pupils hold?
- Which plausible answers and misconceptions could you use as distractors in diagnostic questions?
- Could you use prompts, such as concept cartoons, to stimulate discussion, and how will keep talk focused and productive?

Activities



- How can you build on the ideas that pupils bring with them?
- How might you help pupils confront their misunderstandings and misconceptions?
- When might you simply present correct ideas alongside wrong ones, and when could you stimulate cognitive conflict?


Assess Review

Assess and Review



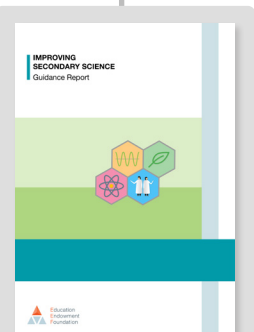
- When and how will you revisit the key concepts and misconceptions from this topic?
- Where can concepts and ideas from this topic be reviewed and referred to in future topics?
- How could you assess understanding of the most common misconceptions in future assessments?

Links to future topics



- Which ideas from future topics relate directly to this one, and how will you explicitly link to them?
- Which future concepts build on those from this topic, and how will you help pupils to understand these connections?
- Which future ideas would be directly affected by misconceptions from this topic, and when will you review them?

- Do you need to re-teach anything
- Is there any key vocabulary you need to revisit and reinforce?
- Are there any concepts that haven't quite stuck?



You can find the full report here: eef.li/science-ks3-ks4/