version 1.1

How Science Works

Why the emphasis on 'How Science Works'?

- To generate more enthusiasm for science
- To make science more interesting and relevant to more students
- To make science more accessible to more students
- To encourage more students to follow science-based courses post 16

How Science Works

- What it isn't - coursework that is taught and examined separately from the real science

- What it is – using the substantive content to deliver the procedural content

The present and the new

- Drugs change the chemical processes in people's bodies so that they become dependent or addicted to them and suffer withdrawal symptoms without them.

- **Candidates should use their skills, knowledge and understanding of how science works:**
  to evaluate the different types of drugs and why some people use illegal drugs for recreation;
  to evaluate claims made about the effect of cannabis on health and the link between cannabis and addiction to hard drugs.

Students should:

- have a wide range of practical experiences
- see the importance that is placed on assessing scientific data on its merits
- have a greater awareness of science as a process and why scientists work in a particular way
- have a greater understanding of the relevance of science to our daily and working lives
- see the relevance of science to technology and of technology to science.

Section 10: How Science Works – the Procedural Content

10.1 The thinking behind the doing

10.2 Fundamental ideas

10.3 Observation as a stimulus to investigation

10.4 Designing an investigation

10.5 Making measurements

10.6 Presenting data

10.7 Using data to draw conclusions

10.8 Societal aspects of scientific evidence

10.9 Limitations of scientific evidence

Matching the substantive content to 'How Science Works'

Substantive content	Learning opportunities	How science works