

The Science Department Pillars of Curriculum Intent

In order to develop students that can SHINE brightly in Science we will:

Develop disciplinary literacy

- Investigate links between words and their composite parts
- Use activities to engage students with developing use of key scientific terminology
- Carefully select the vocabulary to teach and focus on
- Challenge misconceptions in language: everyday versus scientific
- Encourage students to verbalise their thought processes

Use effective feedback

- Use feedback to investigate knowledge and understanding
- Provide feedback regularly and on specific pieces of work
- Provide feedback as comments and provide meaningful opportunities to respond to feedback

Develop scientific numeracy

- Teach numeracy skills in line with methods taught in mathematics
- Enable critical evaluation and analysis of data

Undertake effective practical work

- Ensure students understand the purpose of practical activities
- Ensure practical work develops scientific reasoning
- Enable students to confidently carry out practical work when following a written method
- Develop expertise in planning and effectively executing practical work

Embed the scientific method

- Model the stages of the method
- Making a prediction
 - Developing methods to test hypotheses
 - Successfully collecting data
 - Making a structured formal analysis
 - Testing a hypothesis
 - Comparing predictions against observations
 - Critically analysing data

Develop self-directed learners

- Plan opportunities for students to become more independent learners as they progress through science
- Plan to contextualise student learning through authentic learning experiences and wider curriculum experiences
- Teach revision skills and provide direction to develop personal resources