

# *St Cuthbert Mayne School Curriculum Map*



**Department: Science**

**Year 7**

**Department Intent and overview**

Developing Scientists of the future

**Key Stage 3 Curriculum Summary**

Exploring the fundamental concepts of Science

NOTE: Science groups may have more than one teacher. In these cases students will be taught two units simultaneously, one by each teacher, so as not to disrupt learning and ensure continuity.

### ***Autumn Term 1***

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| <b>Topic/Unit</b>                                                                              | Introduction to Science                                                                                                                                                                                                                                                             |
| <b>Knowledge<br/>(Content covered)</b>                                                         | <ul style="list-style-type: none"><li>• Laboratory Safety</li><li>• Selecting correct equipment</li><li>• Bunsen Burners</li><li>• Displaying Scientific data</li><li>• Carrying out Scientific Investigations</li><li>• Science in the news</li><li>• Careers in Science</li></ul> |
| <b>Skills</b>                                                                                  | Laboratory Safety skills, using equipment safely, reporting findings to the world                                                                                                                                                                                                   |
| <b>Assessment</b>                                                                              | Pre-and Post progress check multiple choice, end of unit assessment                                                                                                                                                                                                                 |
| <b>Gatsby 4 (Linking curriculum learning to careers)</b><br><a href="#">GATSBY BENCHMARK 4</a> | Science Technician                                                                                                                                                                                                                                                                  |

### ***Autumn Term 2***

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| <b>Topic/Unit</b>                      | Cells                                                                                                                                                                                                                               |
| <b>Knowledge<br/>(Content covered)</b> | <ul style="list-style-type: none"><li>• Animal and plant cells</li><li>• Microscopes</li><li>• Organs</li><li>• Systems</li><li>• Puberty</li><li>• Sexual reproduction</li><li>• Pregnancy</li><li>• The menstrual cycle</li></ul> |
| <b>Skills</b>                          | Applying basic scientific theories to new ideas<br>Developing understanding of the fundamentals of science                                                                                                                          |

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| <b>Assessment</b>                                                                              | Pre-and Post progress check multiple choice, end of unit assessment |
| <b>Gatsby 4 (Linking curriculum learning to careers)</b><br><a href="#">GATSBY BENCHMARK 4</a> | Nurse<br>Doctor                                                     |

### *Spring Term 1*

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| <b>Topic/Unit</b>                                                                              | Atoms                                                                                                                                                              |
| <b>Knowledge<br/>(Content covered)</b>                                                         | <ul style="list-style-type: none"> <li>• Structure of an atom</li> <li>• History of the atom</li> <li>• Periodic table</li> <li>• Separating techniques</li> </ul> |
| <b>Skills</b>                                                                                  | Applying basic scientific theories to new ideas<br>Developing understanding of the fundamentals of science                                                         |
| <b>Assessment</b>                                                                              | Pre-and Post progress check multiple choice, end of unit assessment                                                                                                |
| <b>Gatsby 4 (Linking curriculum learning to careers)</b><br><a href="#">GATSBY BENCHMARK 4</a> | Pharmacist                                                                                                                                                         |

### *Spring Term 2*

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| <b>Topic/Unit</b>                                                                              | Forces                                                                                                                                                        |
| <b>Knowledge<br/>(Content covered)</b>                                                         | <ul style="list-style-type: none"><li>• Types of force</li><li>• Friction</li><li>• Speed</li><li>• Density</li><li>• Pressure</li><li>• Pneumatics</li></ul> |
| <b>Skills</b>                                                                                  | Applying basic scientific theories to new ideas<br>Developing understanding of the fundamentals of science                                                    |
| <b>Assessment</b>                                                                              | Pre-and Post progress check multiple choice, end of unit assessment                                                                                           |
| <b>Gatsby 4 (Linking curriculum learning to careers)</b><br><a href="#">GATSBY BENCHMARK 4</a> | Automotive Engineer                                                                                                                                           |

### *Summer Term 1*

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|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Topic/Unit</b>                      | Energy 1                                                                                                                                 |
| <b>Knowledge<br/>(Content covered)</b> | Energy transfers<br>Energy in food<br>Power<br>Efficiency<br>Bills & fuel costs<br>Electricity - Current Potential difference Resistance |
| <b>Skills</b>                          | Applying basic scientific theories to new ideas<br>Developing understanding of the fundamentals of science                               |

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| Assessment                                                                              | Pre-and Post progress check multiple choice, end of unit assessment |
| Gatsby 4 (Linking curriculum learning to careers)<br><a href="#">GATSBY BENCHMARK 4</a> | Electrical Engineer                                                 |

### *Summer Term 2*

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|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Topic/Unit                                                                              | Science practicals                                                                                      |
| Knowledge<br>(Content covered)                                                          | Using the knowledge of all previous units to conduct group investigations and analyse results           |
| Skills                                                                                  | Applying basic scientific theories to new ideas Developing understanding of the fundamentals of science |
| Assessment                                                                              | End of year assessment                                                                                  |
| Gatsby 4 (Linking curriculum learning to careers)<br><a href="#">GATSBY BENCHMARK 4</a> | Scientific Researcher                                                                                   |