

Curriculum Overview – Phase 2 Physics

| Unit Title | Learning | How can parents best support? |
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| Storing Energy September | Students will build on knowledge on energy from Phase 1. They will learn about energy stores and systems, gravitational potential energy, conservation of energy and energy resources. | Read the knowledge organiser together with a particular focus on the keywords and definitions. Students should be able to link their learning back to previous topics studied in year 7 or 8. Use the following website to consolidate learning and revise for assessments https://www.bbc.co.uk/bitesize/topics/z89ddxs |
| Electrical Physics October to November | Students will build on knowledge of electricity from year 7 and 8. They will learn about circuit diagrams, electrical charge, Ohm's law, series and parallel circuits and mains electricity. Students will develop skills in drawing circuit diagrams and practical skills within this topic. | Read the knowledge organiser together with a particular focus on the keywords and definitions. Students should be able to link their learning back to previous topics studied in year 7 or 8. Use the following website to consolidate learning and revise for assessments https://www.bbc.co.uk/bitesize/topics/zcg44qt |

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| <p>The Physics of Matter November</p> | <p>Students will learn about states of matter, changes of state and density in this topic.</p> | <p>Read the knowledge organiser together with a particular focus on the keywords and definitions. Students should be able to link their learning back to previous topics studied in year 7 or 8. Use the following website to consolidate learning and revise for assessments https://www.bbc.co.uk/bitesize/topics/z3ybb82</p> |
| <p>Particle Physics December to January</p> | <p>Students will learn about the structure of an atom, mass number and atomic number, isotopes, radioactivity and contamination and irradiation.</p> | <p>Read the knowledge organiser together with a particular focus on the keywords and definitions. Students should be able to link their learning back to previous topics studied in year 7 or 8. Use the following links to consolidate learning and revise for assessments https://www.bbc.co.uk/bitesize/topics/zshssrd</p> |

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| <p>Physics of Motion January to May</p> | <p>Students will learn about scalar and vector quantities, forces, gravity, weight, resultant forces, work done, distance and displacement, speed, distance-time graphs, stopping distances and reaction time. In this topic students will also have the chance to develop many practical skills centred on accurate measurements.</p> | <p>Read the knowledge organiser together with a particular focus on the keywords and definitions. Students should be able to link their learning back to previous topics studied in year 7 or 8. Use the following website to consolidate learning and revise for assessments https://www.bbc.co.uk/bitesize/topics/ztmstv4</p> |
| <p>Waves and Communication May</p> | <p>Students will learn about transvers and longitudinal waves, wave properties, wave speed, types of electromagnetic waves and uses of electromagnetic waves.</p> | <p>Read the knowledge organiser together with a particular focus on the keywords and definitions. Students should be able to link their learning back to previous topics studied in year 7 or 8. Use the following website to consolidate learning and revise for assessments https://www.bbc.co.uk/bitesize/topics/z2j22nb</p> |

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| <p>Magnets May to July</p> | <p>In this topic students will learn about permanent and induced magnets, poles of a magnet and magnetic fields. Students will also develop observational skills during practical activities.</p> | <p>Read the knowledge organiser together with a particular focus on the keywords and definitions. Students should be able to link their learning back to previous topics studied in year 7 or 8. Use the following website to consolidate learning and revise for assessments https://www.bbc.co.uk/bitesize/topics/zwkww6f</p> |
| <p>Space (Triple only) July</p> | <p>In this additional topic for students wishing to study separate sciences students will learn about the Solar System.</p> | <p>Read the knowledge organiser together with a particular focus on the keywords and definitions. Students should be able to link their learning back to previous topics studied in year 7 or 8. Use the following website to consolidate learning and revise for assessments https://www.bbc.co.uk/bitesize/guides/zt2fcj6/revision/1</p> |