**Curriculum Intent - PHYSICS**

In the Physics department we aim to develop scientifically knowledgeable, literate students who are able to understand and discuss current affairs, including global warming and conservation issues, technological development and who understand their responsibility as citizens of Earth. We aim to grow their natural curiosity about the world around them.

Students will build upon their KS3 and KS4 Science knowledge to further develop their understanding of scientific method, including the peer review process, in order to allow them to make important life choices. This process will enable them to evaluate and make informed decisions about information presented in different contexts.

**Curriculum Implementation**

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|  | | | **Autumn** | **Spring** | **Summer** |
| HT1 andHT2 | HT3 andHT4 | HT5 and HT6 |
| **Year 10** | **BROAD** | Core content, knowledge and skills | P1 Conservation and dissipation of energy  P2 Energy transfer by heating  P3 Energy resources  P4 Electric circuits | P5 Electricity in the home  P6 Molecules and matter  P7.6 – P7.9 Additional nuclear radiation content  P8 Forces in balance | P10 Force and motion  P11 Force and pressure |
| Ways the Y10 curriculum goes beyond the national curriculum, including extra-curricular opportunities | Euro space centre trip | | |
| **COHERENT** | Prior knowledge required to access this unit | KS3 Activate and scheme of work resources.  P7 Radioactivity | KS3 Activate and scheme of work resources.  P9 Motion | KS3 Activate and scheme of work resources.  P12 Wave properties |
| Assessment | End of topic test after every topic. End of Year 10 examination. | | |
| Points when this knowledge/these skills will be revisited | Knowledge recall every lesson.  Required practical work. | | |
| **EMPOWERING** | Key vocabulary | Key words for each topic on the back of the blue sheet given at the start of each topic. | | |
| Opportunities to engage with different cultures/perspectives/voices | Engagement with the ethical use of fuels.  Energy superiority in the Western world compared with less developed nations. | | |
| Relevance to real world and careers | Highlights and develops knowledge of domestic and commercial use of electricity. Links into computing and other technological fields.  Introduces sustainability and global energy issues. | | |
| **CHALLENGING** | Homework | My GCSE Science – watch videos, answer multiple choice questions  Kerboodle – various different tasks  Seneca Learning  Exam questions  Personal revision | | |
| Super curricular recommendations | Engage with A’Level content.  Follow societal issues using NASA, World Health Organisation, Institute of Physics etc | | |

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|  | | | **Autumn** | **Spring** | **Summer** |
| HT1 and HT2 | HT3 and HT4 | HT5 and HT6 |
| **Year 11** | **BROAD** | Core content, knowledge and skills | P13 Electromagnetic waves  P12.5 – P12.7 Additional wave properties  P14 Light | P15 Electromagnetism | P16 Space  Consolidation and revision |
| Ways the Y1 curriculum goes beyond the national curriculum, including extra-curricular opportunities | Euro space centre trip  GCSE Science lecture Live | | |
| **COHERENT** | Prior knowledge required to access this unit | KS3 Activate and scheme of work resources.  Yr10 curriculum.  Continued use of MyGCSEScience and other revision resources. | | |
| Assessment | End of topic test after every topic. TES1 in November, TES2 in February. | | |
| Points when this knowledge/these skills will be revisited | Knowledge recall every lesson.  Required practical work.  Throughout Y11 students to develop and follow personal revision plan.  MyGCSE Science, past papers, Physics and Maths tutor. | | |
| **EMPOWERING** | Key vocabulary | Key words for each topic on the back of the blue sheet given at the start of each topic. | | |
| Opportunities to engage with different cultures/perspectives/voices | Engagement with the ethical use of satellites.  Communication superiority in the Western world compared with less developed nations. | | |
| Relevance to real world and careers | Space is the fastest growing industry globally and a good introduction is presented here.  Electromagnetism provides the stimulation to consider renewable energy production. | | |
| **CHALLENGING** | Homework | My GCSE Science – watch videos, answer multiple choice questions  Kerboodle – various different tasks  Seneca Learning  Exam questions  Personal revision | | |
| Super curricular recommendations | Engage with A’Level content.  Follow societal issues using NASA, World Health Organisation, Institute of Physics etc | | |