



Curriculum Plan year 10 physics triple curriculum
2016

| Autumn Term | Spring Term | Summer Term |
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| <p><u>Waves</u></p> <p>4.6.1.1 Transverse and longitudinal waves 4.6.1.2 Properties of waves 4.6.1.3 Reflection of waves (physics only) 4.6.1.4 Sound waves (physics only) (HT only) 4.6.1.5 Waves for detection and exploration (physics only) (HT only) 4.6.2 Electromagnetic waves 4.6.2.2 Properties of electromagnetic waves 1 4.6.2.3 Properties of electromagnetic waves 2 4.6.2.4 Uses and applications of electromagnetic waves 4.6.2.5 Lenses (physics only) <u>Required practical</u> Investigate the reflection of light by different types of surface and the refraction of light by different substances.</p> | <p><u>Energy</u></p> <p>4.1.1.1 Energy stores and systems 4.1.1.2 Changes in energy 4.1.1.3 Energy changes in systems 4.1.1.4 Power 4.1.2 Conservation and dissipation of energy 4.1.2.1 Energy transfers in a system 4.1.2.2 Efficiency <u>Required practical</u> An investigation to determine the specific heat capacity of one or more materials. The investigation will involve linking the decrease of one energy store (or work done) to the increase in temperature and subsequent increase in thermal energy stored.</p> | <p><u>Space Physics</u></p> <p>4.8.1.1 Our solar system 4.8.1.2 The life cycle of a star 4.8.1.3 Orbital motion, natural and artificial satellites 4.8.2 Red-shift (physics only)</p> <p><u>Required practical</u> Investigate the effect of varying the force on the acceleration of an object of constant mass and the effect of varying the mass of an object on the acceleration produced by a constant force.</p> |
| <p>HALF TERM</p> | | |

Bishop Milner Catholic College



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| <p>4.6.2.6 Visible light (physics only) 4.6.3 Black body radiation (physics only) 4.6.3.2 Perfect black bodies and radiation</p> <p><u>Required practical</u> Investigate how the amount of infrared radiation absorbed or radiated by a surface depends on the nature of that surface.</p> <p><u>Required practical</u> Make observations to identify the suitability of apparatus to measure the frequency, wavelength and speed of waves in a ripple tank and waves in a solid and take appropriate measurements.</p> | <p>4.1.3 National and global energy resources</p> <p><u>Required practical</u> Investigate the effectiveness of different materials as thermal insulators and the factors that may affect the thermal insulation properties of a material.</p> | <p>CONTINUED</p> |
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