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| **Week** | **Coursework Topics and Texts** | **Evaluation Strategies** |
| Term 3  1 | **Physical Science: Energy and Forces**  Law of conservation of energy  Energy transfer and transformation  Efficiency calculations  Review understanding of kinetic and potential energy  Work  Potential energy calculations | Diagnostic: Energy and forces  Formative: Energy transformation |
| 2 | Kinetic energy calculations  Definition of mechanical energy  Mechanical energy calculations | Formative: Mechanical energy |
| 3 | Newtons First Law of Motion: The law of Inertia  Practical applications of Newton’s Second Law  Newton’s Second Law of Motion: The Law of Acceleration  Practical applications of Newton’s Second Law | Formative: Inertia and force |
| 4 | Newton’s Third Law of Motion  Applications of Newton’s Third Law  Free body diagrams showing interaction of forces and net force. | Formative: Action and reaction forces |
| 5 | Review of Energy and Forces | **Summative: Energy and forces 17.5%** |
| 6 | **Physical Science: Motion**  Distance and displacement  Speed and velocity  Acceleration  Kinematic equations of motion | Formative: Motion calculations |
| 7 | *Investigation: Students plan, carry out and interpret results of an investigation* | ***Validation: Pendulums 15%*** |
| 8 | Displacement-time graphs  Velocity-time graphs | Formative: Graphing motion |
| 9 | Review of Physics of Motion |  |
| 10 | (Year 10 Camp Wed-Thu) | **Summative: Physics of motion 17.5%** |
| Term 4  1 | **Space Science: Cosmology**  Characteristics of Stars  Life Cycle of a Star - applications for measuring age and distance to stellar bodies | Diagnostic: Earth and space science  Formative: Stars |
| 2 | The Big Bang Theory – how the universe began and implications in the universe now  The Doppler Effect and red-shift  Stellar Parallax | Formative: The expanding universe |
| 3 | **Earth Science: Cycles in the Biosphere**  Why nutrients must be recycled  Carbon cycle and nitrogen cycle | Formative: Cycles |
| 4 | Cause and effect of greenhouse effect  Impact of humans on recycling  Global temperatures and sea level rise |  |
| 5 | Impact on ocean currents and weather  Impact on Biodiversity | Formative: Climate change |
| 6 | Earth & space consolidation | **Summative: Earth and space science 15%** |
| 7 | Examination Revision |  |
| 8 | Examination Revision |  |
| 9 | Examination | **Summative: Examination 35%** |

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| Assessment Outline | |
| Investigations | 15% |
| Tests | 50% |
| Exam | 35% |
| Total | 100% |