CiE iGCSE Physics 0625 Learning Plan

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| **Section 2: Speed, velocity and acceleration** | | |
| Specification | Resources | Assessment |
| **Core**  • Define speed and calculate average speed from total time / total distance  • Plot and interpret a speed-time graph or a distance- time graph  • Recognise from the shape of a speed-time graph when a body is  – at rest  – moving with constant speed  – moving with changing speed  • Calculate the area under a speed-time graph to work out the distance travelled for motion with constant acceleration  • Demonstrate understanding that acceleration and deceleration are related to changing speed including qualitative analysis of the gradient of a speed-time graph   * State that the acceleration of free fall for a body near to the Earth is constant   **Supplement**  • Distinguish between speed and velocity  • Define and calculate acceleration using  time taken change of velocity  • Calculate speed from the gradient of a distance-time graph  • Calculate acceleration from the gradient of a speed-time graph  • Recognise linear motion for which the acceleration is constant  • Recognise motion for which the acceleration is not constant  • Understand deceleration as a negative acceleration  • Describe qualitatively the motion of bodies falling in a uniform gravitational field with and without air resistance (including reference to terminal velocity) | Video: Section 1 – General Physics – Lesson 2- Speed, velocity and acceleration  Powerpoint: Physics 2 – Speed velocity and acceleration  Textbook  Page 26 – Speed, velocity and acceleration  Page 28 – Motion graphs  Page 30 – Recording motion  Page 32 – Free fall  Page 34 – More motion graphs | Textbook  Questions Pages 50-51; 1, 2, 3, 4, 7, 8  Textbook Answers: Page 327  Talking Paper 2 – Speed, velocity and acceleration.  Exam Q2 (PDF) – Speed, velocity and acceleration  Exam Q2 (PDF) – Mark Scheme |

Videos – www.igcsesciencecourses.com

Textbook Ref: Complete Physics for Cambridge iGCSE (Stephen Pople) - OUP

DVD Assessments – see resource DVD in textbook.