CiE iGCSE Physics 0625 Learning Plan

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| **Section 16: Thermal processes**  |
| Specification | Resources | Assessment |
| **Core**• Describe experiments to demonstrate the properties of good and bad thermal conductorsRecognise convection as an important method of thermal transfer in fluids • Relate convection in fluids to density changes and describe experiments to illustrate convection• Identify infra-red radiation as part of the electromagnetic spectrum • Recognise that thermal energy transfer by radiation does not require a medium • Describe the effect of surface colour (black or white) and texture (dull or shiny) on the emission, absorption and reflection of radiation• Identify and explain some of the everyday applications and consequences of conduction, convection and radiation**Supplement**• Give a simple molecular account of conduction in solids including lattice vibration and transfer by electrons• Describe experiments to show the properties of good and bad emitters and good and bad absorbers of infra-red radiation • Show understanding that the amount of radiation emitted also depends on the surface temperature and surface area of a body | Video: Section 2 – Thermal Physics – Lesson 5 – Thermal processesPowerpoint: Physics 16 – Thermal processesTextbook Pages 108 – 109; Thermal conductionPages 110 – 111; ConvectionPages 112-113; Thermal radiationSection 16 Checklist.doc | TextbookPage 109 – Q1 to Q5Page 111 – Q1 to Q3Page 113 – Q1 to Q6Answers – Page 328Talking paper – CiE Physics Section 16 – Thermal processesSection 16 Exam Question –. (pdf)Section 16 Exam Question – Mark Scheme. (pdf) |

Videos – www.igcsesciencecourses.com

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

DVD Assessments – see resource DVD in textbook.