CiE iGCSE Physics 0625 Learning Plan

|  |  |  |
| --- | --- | --- |
| **Section 16: Thermal processes** | | |
| Specification | Resources | Assessment |
| **Core**  • Describe experiments to demonstrate the properties of good and bad thermal conductors  Recognise 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 processes  Powerpoint: Physics 16 – Thermal processes  Textbook  Pages 108 – 109; Thermal conduction  Pages 110 – 111; Convection  Pages 112-113; Thermal radiation  Section 16 Checklist.doc | Textbook  Page 109 – Q1 to Q5  Page 111 – Q1 to Q3  Page 113 – Q1 to Q6  Answers – Page 328  Talking paper – CiE Physics Section 16 – Thermal processes  Section 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.