CiE iGCSE Physics Checklist

Section 16: Thermal processes

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| **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 |  |  |  |
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| **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 |  |  |  |