CiE iGCSE Physics 0625 Learning Plan

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| **Section 19: Total Internal Reflection and Lenses** | | |
| Specification | Resources | Assessment |
| **Core**  • Give the meaning of critical angle  • Describe internal and total internal reflection  Describe the action of a thin converging lens on a beam of light  • Use the terms principal focus and focal length  • Draw ray diagrams for the formation of a real image by a single lens  • Describe the nature of an image using the terms enlarged/same size/diminished and upright/inverted  **Supplement**  • Recall and use the equation sin I / sin r=n  • Recall and use n = 1 / sin c  • Describe and explain the action of optical fibres particularly in medicine and communications technology  Draw and use ray diagrams for the formation of a virtual image by a single lens  • Use and describe the use of a single lens as a magnifying glass  • Show understanding of the terms real image and virtual image | Video: Physics – Section 3 – Lesson 19 – Total internal reflection and lenses  Powerpoint: Physics Section 3 – Properties of waves – Physics 19 – Total internal reflection and lenses.  Textbook  Page 148-149; Total Internal Reflection  Page 150-151; Refraction calculations  Page 152-153; Lenses (1)  Page 154-155; Lenses (2)  Section 19 checklist.doc | Textbook  Page 149 – Qs 1 to 3  Page 151 – Qs 1 to 3  Page 153 – Qs 1 to 3  Page 153 – Qs 1 to 3  Textbook answers – page 329  Talking Paper video – Section 19 – Total internal reflection and lenses  Section 19 Exam Question (PDF) – TIR and Lenses  Section 19 Exam Question – mark scheme (PDF) – TIR and Lenses |

Videos – www.igcsesciencecourses.com

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

DVD Assessments – see resource DVD in textbook.