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 reflectionDescribe 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 lensesPowerpoint: Physics Section 3 – Properties of waves – Physics 19 – Total internal reflection and lenses.Textbook Page 148-149; Total Internal ReflectionPage 150-151; Refraction calculationsPage 152-153; Lenses (1)Page 154-155; Lenses (2)Section 19 checklist.doc | TextbookPage 149 – Qs 1 to 3Page 151 – Qs 1 to 3Page 153 – Qs 1 to 3Page 153 – Qs 1 to 3Textbook answers – page 329Talking Paper video – Section 19 – Total internal reflection and lensesSection 19 Exam Question (PDF) – TIR and LensesSection 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.