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| **Year:** | | **9** | | **Unit:** | **Heat, Light, Sound and Electricity** | | | | |
| **Subject:** | | **Science** | | **Assessment:** | **Assignment (due week 10)** | | | | |
| **LG** | **LEARNING GOALS and SUCCESS CRITERIA** | | | | | **I feel confident with this… (Date/Ref)** | **I only need a little help with this** | **I can do some of this but need a lot of help** | **I don’t know this at all-yet!** |
| **1**  4 lessons | **SC8** | | I can **discuss** the wave model of light | | |  |  |  |  |
| **SC9** | | I can **identify** the wavelength and frequency of a wave from a diagram | | |  |  |  |  |
| **SC10** | | I can **identify** light as part of the electromagnetic spectrum (ROYGBIV) | | |  |  |  |  |
| **SC10** | | I can **explore** and **describe** the movement of light energy through different media | | |  |  |  |  |
| **SC11** | | I can **explain** the movement of light through a glass block using a diagram | | |  |  |  |  |
| **SC12** | | I can **investigate** reflection and refraction of light | | |  |  |  |  |
| **SC13** | | I can **explain** the reflection of refraction of light using labelled diagrams | | |  |  |  |  |
| **LG1** | | Students will be able to explain light energy transfer through different mediums using wave and particle models [(ACSSU182)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACSSU182) | | |  |  |  |  |
| **2**  2 Lessons | **SC15** | | I can **explain** how sound energy is transmitted using the wave model | | |  |  |  |  |
| **SC16** | | I can **describe** transverse waves and longitudinal waves | | |  |  |  |  |
| **SC17** | | I can **explain** pitch and loudness in terms of wave properties | | |  |  |  |  |
| **SC18** | | I can **explain** how and why the speed of sound changes in different materials | | |  |  |  |  |
| **LG2** | | Students will be able to explain sound energy transfer through different mediums using wave and particle models [(ACSSU182)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACSSU182) | | |  |  |  |  |
| **3**  3 Lessons | **SC19** | | I can **explain** electric current as the flow of electric charge in a closed circuit | | |  |  |  |  |
| **SC20** | | I can **explain** current, voltage and resistance and **identify** their unit | | |  |  |  |  |
| **SC23** | | I can **investigate** and **explain** how resistance affects the electric current in a circuit. | | |  |  |  |  |
| **LG3** | | Students will be able to investigate the factors that affect the transfer of energy through an electrical circuit [(ACSSU182)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACSSU182) | | |  |  |  |  |
| **4**  18 Lessons | **SC1** | | I can **discuss** how the particle model is useful for understanding conduction | | |  |  |  |  |
| **SC2** | | I can **explain** how conduction occurs in terms of the particle model | | |  |
| **SC3** | | I can **explore** and **explain** the movement of heat energy through different mediums conductors and insulators | | |
| **SC4** | | I can **explain** how convection occurs in terms of the particle model  I can **investigate** and **explain** the transfer of heat through convection  I can **describe** the wave model and how it is useful for understanding heat transfer through radiation  I can **investigate** and **explain** the transfer of heat through radiation  Students will be able to explain heat energy transfer through different mediums using wave and particle models[(ACSSU182)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACSSU182) | | |
| **SC5** | |
| **SC6** | |
| **SC7** | |
| **LG4** | |