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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 modelI can **investigate** and **explain** the transfer of heat through convectionI can **describe** the wave model and how it is useful for understanding heat transfer through radiationI 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** |