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| **STUDENT UNIT PLANNER** | | | | | | | |
| Year Level: | | | | 9 | | Student check list: 🗹 when you know… | |
| Subject: | | | | Science | | Assessment due dates  The learning goals and success criteria for this term  Changes to routines e.g. excursions  When assessment practice lessons will occur (exemplars)  When revision lessons will occur | |
| **Term/Year:** | | | | 2 / 2024 | |
| **Unit Title:** | | | | Heat, Light, Sound and Electricity | |
| **Assessment:** | | | | Assignment (due week 10) | |
| **Key Resource:** | | | | STILE App Lessons | |
| **WK** | **Wk. Beg** | **Holidays or variations this week** | **Lesson 1** | | **Lesson 2** | | **Lesson 3** |
| 1 | 15 Apr. 24 |  | **Light energy**  Discuss the wave model of light  Identify key components of a wave diagram (wavelength and frequency)  Identify light as part of the EMS (ROYGBIV) | | **Light Energy**  Explain the movement of light through a glass block using a diagram  Investigate and explain the refraction and reflection of light using labelled diagrams | | **Light Energy**  Ray boxes and experiment with light using mirrors, lenses, Perspex block and explore refraction |
| 2 | 22 Apr. 24 | ANZAC DAY 25th | **Light Energy**  Ray boxes and experiment with light using mirrors, lenses, Perspex block and explore refraction | | **Sound energy**  Explain how sound energy is transmitted using the wave model  Describe transverse and longitudinal waves | | **Sound energy**  Explain pitch and loudness in terms of wave properties  Explain how and why the speed of sound changes in different materials  Practical: Investigate Pitch and Loudness |
| 3 | 29 Apr. 24 |  | **Electrical energy**  Introduction to Electricity – Van De Graaff Demonstration  Explain voltage and current and resistance for an electric circuit | | **Electrical energy**  Electric circuit symbols and basic circuit diagrams. | | **Electrical energy**  Practical: Investigate factors that effect the transfer of energy through an electric circuit.  Series and parallel circuits to measure voltage, current and resistance |
| 4 | 6 May. 24 | LABOUR DAY 6th | **Catch up day** | | **Heat energy**  Discuss the particle model  Explain conduction in terms of the particle model | | **Heat energy**  Practical: Investigate heat conduction |
| 5 | 13 May. 24 |  | **Heat energy**  Explore and explain the movement of heat energy through different mediums (Conductors and Insulators) | | **Heat energy**  Practical: Investigate the movement of heat through different mediums (conductors and insulators) | | **Heat energy**  Explain how convection occurs in terms of the particle model |
| 6 | 20 May. 24 |  | **Heat energy**  Practical: Investigate and explain the transfer of heat through convection | | **Heat energy**  Describe the wave model  Heat transfer through radiation | | **Heat energy**  Practical: Investigate heat transfer through radiation |
| 7 | 27 May. 24 |  | **Assignment Lesson**   * Hand out and introduce assignment   Aim/Hypothesis/ Method/Risk Assessment | | **Assignment Lesson**  Conduct Experiment and collect results | | **Assignment Lesson**  Conduct Experiment and collect results |
| 8 | 3 Jun. 24 |  | **Assignment Lesson**   * Conduct Experiment and collect results | | **Assignment Lesson**   * Data Analysis * Complete Graph 1 | | **Assignment Lesson**   * Data Analysis * Complete Graph 1 |
| 9 | 10 Jun. 24 |  | **Assignment Lesson**   * Discussion Questions * Conclusion | | **Assignment Lesson**   * Discussion Questions * Conclusion | | **Assignment Lesson**   * Commence Section 2 |
| 10 | 17 Jun. 24 |  | **Assignment Lesson**   * Assignment Due | | **End of Term Activities** | | **End of Term Activities** |