| Task | Purpose and Description | Curriculum Outcome |
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| Car Creation Challenge | To prepare students to think scientifically by creating, testing and refining a hypothesis to collect and analyse data. Students design, build, test and modify a self-propelled car. This will build on student skills in designing fair tests and will prepare students for experiment design for the rest of the year and senior sciences. | **Science:** Energy conservation in a system can be explained by describing energy transfers and transformations**Science:** The motion of objects can be described and predicted using the laws of physics**Science:** Formulate questions or hypotheses that can be investigated scientifically**Science:** Plan, select and use appropriate investigation methods, including field work and laboratory experimentation, to collect reliable data; assess risk and address ethical issues associated with these methods**Science:** Select and use appropriate equipment, including digital technologies, to systematically and accurately collect and record data**Science:** Analyse patterns and trends in data, including describing relationships between variables and identifying inconsistencies**Science:** Use knowledge of scientific concepts to draw conclusions that are consistent with evidence**Science:** Evaluate conclusions, including identifying sources of uncertainty and possible alternative explanations, and describe specific ways to improve the quality of the data**Science:** Critically analyse the validity of information in secondary sources and evaluate the approaches used to solve problems**Science:** Communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language, conventions and representations**Maths:** Calculate and interpret the mean and standard deviation of data and use these to compare data sets |
| Issues Investigation and Debate | Students will find relevant issues in the community and explore both sides of the issue. They will learn how to build an argument and use references to support their ideas. This will prepare students for  |  **Civics:** Critically evaluate information and ideas from a range of sources in relation to civics and citizenship topics and issues**Civics:** Account for different interpretations and points of view**Civics:** Identify, gather and sort information and ideas from a range of sources and reference as appropriate**Civics:** Recognise and consider multiple perspectives and ambiguities, and use strategies to negotiate and resolve contentious issues**Civics:** Present evidence-based civics and citizenship arguments using subject- specific language**English:** Understand conventions for citing others, and how to reference these in different ways**English:** Plan, rehearse and deliver presentations selecting and sequencing appropriate content and multimodal elements to influence a course of action**English:** Use organisation patterns, voice and language conventions to present a point of view on a subject, speaking clearly, coherently and with effect, using logic, imagery and rhetorical devices to engage audiences |
| Understanding SACE and the Capabilities | To provide students with an opportunity to develop and manage SMART learning goals aligned to the SACE capabilities. These will be used for PLP assessment and in PEOLs. |   **PLP (SACE):** Clearly explains understanding of the selected capability or capabilities with insightful and detailed examples |
| Interview with a friend |  | **History:** Use chronological sequencing to demonstrate the relationship between events and developments in different periods and places |