**PRIMARY SCIENCE – 3-6**

CURRICULUM 3-10
FROM THE WA SYLLUBUSES PAGE SCSA
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KNOWLEDGE CONTENT linked to **Sustainable Development Goals and Themes in Global Citizenship Education and Education for Sustainable Development**.
See A1. Sustainable Development Goals; Global Citizenship Education and Education for Sustainable Development, Aims and Themes.

| **YEAR**<br>**LEARNING AREA** | **SCIENCE**<br>**Science Understanding**<br>**Science as Human Endeavour** | **SDGs**<br>**ESD Aims and Themes**<br>**GCEd Aims and Themes** |
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| **Y3 SCIENCE**<br>In Year 3, students observe heat and its effects on solids and liquids and begin to develop an understanding of energy flows through simple systems. In observing day and night, they develop an appreciation of regular and predictable cycles. Students order their observations by grouping and classifying; in classifying things as living or non-living they begin to recognise that classifications are not always easy to define or apply. They begin to quantify their observations to enable comparison, and learn more sophisticated ways of identifying and representing relationships, including the use of tables and graphs to identify trends. They use their understanding of relationships between components of simple systems to make predictions. | **Science Understanding**<br>**Biological sciences**<br>Living things can be grouped on the basis of observable features and can be distinguished from non-living things (ACSSU044)<br>**Chemical sciences**<br>A change of state between **solid** and **liquid** can be caused by adding or removing heat (ACSSU046)<br>**Earth and space sciences**<br>Earth's rotation on its axis causes regular changes, including night and day (ACSSU048)<br>**Physical sciences**<br>**Heat** can be produced in many ways and can move from one object to another (ACSSU049)<br><br>**Science as a Human Endeavour**<br>**Nature and development of science**<br>Science involves making predictions and describing patterns and relationships (ACSHE050)<br>**Use and influence of science**<br>**Science knowledge helps people to understand the effect of their actions (ACSHE051)** | **SDG 14**. Conserve and sustainably use the **oceans**, **seas** and **marine resources** for sustainable development.<br><br>**SDG 15**. Protect, restore and promote sustainable use of **terrestrial ecosystems**, sustainably manage **forests**, combat **desertification**, and halt and reverse **land degradation** and halt **biodiversity loss**.<br><br>**ESD Themes**<br>• Biodiversity |

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| **YEAR 4 SCIENCE**<br>In Year 4, students broaden their understanding of classification and form and function through an exploration of the properties of natural and processed materials. They learn that forces include non-contact forces and begin to appreciate that some interactions result from phenomena that can't be seen with the naked eye. **They begin to appreciate that current systems, such as Earth's surface, have characteristics that have resulted from past changes and that living things form part of systems. They understand that some systems change in predictable ways, such as through cycles.** They apply their knowledge to make predictions based on interactions within systems, including those involving the actions of humans. | **Science Understanding**<br>**Biological sciences**<br>**Living things have life cycles (ACSSU072)**<br>**Living things depend on each other and the environment to survive (ACSSU073)**<br>**Chemical sciences**<br>Natural and processed materials have a range of physical properties that can influence their use (ACSSU074)<br>**Earth and space sciences**<br>**Earth's surface changes over time as a result of natural processes and human activity (ACSSU075)**<br>**Physical sciences**<br>Forces can be exerted by one object on another through direct contact or from a distance (ACSSU076)<br><br>**Science as Human Endeavour**<br>**Nature and development of science**<br>Science involves making predictions and describing patterns and relationships (ACSHE061)<br>**Use and influence of science**<br>Science knowledge helps people to understand the effect of their actions (ACSHE062) | **SDG 13.** Take urgent action to combat **climate change** and its impacts.<br><br>**SDG 14**. Conserve and sustainably use the **oceans**, **seas** and **marine resources** for sustainable development.<br><br>**SDG 15**. Protect, restore and promote sustainable use of **terrestrial ecosystems**, sustainably manage **forests**, combat **desertification**, and halt and reverse **land degradation** and halt **biodiversity loss**.<br><br>**ESD Themes**<br>• Biodiversity<br>• Sustainable Consumption<br>• Climate Change |
| **YEAR 5 SCIENCE**<br>In Year 5, students are introduced to cause and effect relationships through an exploration of adaptations of living things and how this links to form and function. They explore observable phenomena associated with light and begin to appreciate that phenomena have sets of characteristic behaviours. They broaden their classification of matter to include gases and begin to see how matter structures the world around them. Students consider Earth as a component within a **solar system** and use models for investigating systems at astronomical scales. **Students begin to identify stable and dynamic aspects of systems, and learn how to look for patterns and** | **Science Understanding**<br>**Biological sciences**<br>Living things have structural features and adaptations that help them to survive in their environment (ACSSU043)<br>**Chemical sciences**<br>Solids, liquids and gases have different observable properties and behave in different ways (ACSSU077)<br>**Earth and space sciences**<br>The Earth is part of a system of planets orbiting around a star (the sun) (ACSSU078)<br>**Physical sciences**<br>Light from a source forms shadows and can be absorbed, reflected and refracted (ACSSU080)<br><br>**Science as a Human Endeavour** | **SDG 14**. Conserve and sustainably use the **oceans**, **seas** and **marine resources** for sustainable development.<br><br>**SDG 15**. Protect, restore and promote sustainable use of **terrestrial ecosystems**, sustainably manage **forests**, combat **desertification**, and halt and reverse **land degradation** and halt **biodiversity loss**<br><br>**ESD Themes**<br>• Biodiversity |

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| **relationships between components of systems**. They develop explanations for the patterns they observe. | **Nature and development of science**<br>Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (ACSHE081)<br>**Use and influence of science**<br>**Scientific knowledge is used to solve problems and inform personal and community decisions** (ACSHE083) | |
| **YEAR 6 SCIENCE**<br>In Year 6, students explore how changes can be **classified** in different ways. They learn about transfer and transformations of **electricity**, and continue to develop an understanding of energy flows through systems. They link their experiences of electric circuits as a system at one scale to generation of electricity from a variety of sources at another scale and begin to see links between these systems. They develop a view of Earth as a dynamic system, in which changes in one aspect of the system impact on other aspects; similarly, they see that the growth and survival of living things are dependent on matter and energy flows within a larger system. Students begin to see the role of variables in measuring changes and the value of accuracy in these measurements. They learn how to look for patterns and to use these to identify and explain relationships by drawing on evidence. | **Science Understanding**<br>**Biological sciences**<br>**The growth and survival of living things are affected by physical conditions of their environment** (ACSSU094)<br>**Chemical sciences**<br>Changes to materials can be reversible or irreversible (ACSSU095)<br>**Earth and space sciences**<br>Sudden geological changes and extreme weather events can affect Earth's surface (ACSSU096)<br>**Physical sciences**<br>Electrical energy can be transferred and transformed in electrical circuits and can be generated from a range of sources (ACSSU097)<br>**Science as a Human Endeavour**<br>**Nature and development of science**<br>Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (ACSHE098)<br>**Use and influence of science**<br>Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE100) | **SDG 7**. Ensure access to **affordable**, **reliable**, sustainable and modern **energy** for all.<br><br>**SDG 13.** Take urgent action to combat **climate change** and its impacts.<br><br>**SDG 14**. Conserve and sustainably use the **oceans**, **seas** and **marine resources** for sustainable development.<br><br>**SDG 15**. Protect, restore and promote sustainable use of **terrestrial ecosystems**, sustainably manage **forests**, combat **desertification**, and halt and reverse **land degradation** and halt **biodiversity loss**.<br><br>**ESD Themes:**<br>Biodiversity<br>Climate Change<br>Disaster Risk Reduction |