



# STUDY GUIDE

## Year 7 Science

## TERM 1

### Assessment

Task	End of a chapter
Inquiry report	End of a chapter
End of Chapter Test	End of chapter

Chapter	Content Description	Elaborations
<b>Science Inquiry Skills</b> Chapter 1 (1 or 2 weeks)	Questioning and predicting  Planning and conducting  Processing and analysing data and information  Evaluating and Communicating	Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge (AC SIS124). Collaboratively and individually plan and conduct a range of investigation types, including fieldwork and experiments, ensuring safety and ethical guidelines are followed (AC SIS125). In fair tests, measure and control variables, and select equipment to collect data with accuracy appropriate to the task (AC SIS126). Construct and use a range of representations, including graphs, keys and models to represent and analyse patterns or relationships, including using digital technologies as appropriate (AC SIS129). Summarise data, from students' own investigations and secondary sources, and use scientific understanding to identify relationships and draw conclusions (AC SIS130). Reflect on the method used to investigate a question or solve a problem, including evaluating the quality of the data collected, and identify improvements to the method (AC SIS131). Use scientific knowledge and findings from investigations to evaluate claims (AC SIS132). Communicate ideas, findings and solutions to problems using scientific language and representations using digital technologies as appropriate (AC SIS133).
<b>Food Webs</b> Chapter 3 (5 weeks)	Interactions between organisms can be described in terms of food chains and food webs; human activity can affect these interactions (ACSSU112).	<ul style="list-style-type: none"> <li>★ use food chains to show feeding relationships in a habitat.</li> <li>★ construct and interpret food webs to show relationships between organisms in an environment.</li> <li>★ classify organisms of an environment according to their position in a food chain.</li> <li>★ recognise the role of microorganisms within food chains and food webs.</li> <li>★ investigate the effect of human activity on local habitats, such as deforestation, agriculture or the introduction of new species.</li> <li>★ explore how living things can cause changes to their environment and impact other living things, such as the effect of cane toads.</li> <li>★ research specific examples of human activity, such as the use of fire by traditional Aboriginal people and the effects of palm oil harvesting in Sumatra and Borneo.</li> </ul>
<b>Mixtures</b> Chapter 4 (4 weeks)	Mixtures, including solutions, contain a combination of pure substances that can be separated using a range of techniques (ACSSU113).	<ul style="list-style-type: none"> <li>★ Recognise the differences between pure substances and mixtures and identify examples of each.</li> <li>★ Identify the solvent and solute in solutions.</li> <li>★ Investigate and use a range of physical separation techniques such as filtration, decantation, evaporation, crystallisation, chromatography and distillation.</li> <li>★ Explore and compare separation methods used in the home.</li> </ul>