

Aussie
STEM Stars

GEORGIA WARD-FEAR

Reptile Biologist and Explorer

Written by Claire Saxby



Teacher Notes

written by
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About the series

Aussie STEM Stars is a fresh and unique series for children and young teens aged 10-13 years that focuses on our Australian STEM heroes. Each book is written by an award-winning children's author and follows the real-life stories of Australia's top scientists and inventors, chosen on the basis of their pioneering work. Themes explored in the series include childhood, school, family and formative experiences, what inspired them to pursue their chosen path, how they persevered in the face of challenges and what they have contributed to science in Australia.

Reason for studying this book

Wild Dingo Press publisher Catherine Lewis is excited about their publication. "These disciplines are more important than ever as we look to our inventors and innovators to solve contemporary problems facing humanity and the planet. Our Aussie STEM Stars series uses narrative nonfiction as a tool for educating children - making it as fun and interesting as fiction books in this market. Our writers are passionate about doing justice to their chosen subjects - and their lives - providing teachers, parents and librarians a wonderful series aimed at encouraging children to develop an interest in STEM at a young age."

About the author

Claire Saxby was born in Melbourne. She moved to Newcastle when she was a toddler and then to Bougainville Island in Papua New Guinea, where she discovered the most beautiful beaches and reefs in the world.

Claire attended many schools around Australia before studying to become a podiatrist in Melbourne. For several years she worked in community health while simultaneously writing for children. Her award-winning books fall into three main categories: narrative nonfiction, history and humour.

Claire is widely curious about everything, and passionate about encouraging curiosity, wonder and understanding in young people. She works part-time in a bookshop, where she loves talking to readers and running sessions on how to read to babies.

Check her out: www.claresaxby.com.au

About Georgia Ward-Fear

Dr Georgia Ward-Fear is a conservation ecologist, reptile biologist and explorer who has trekked many continents and travelled thousands of kilometres in a sea kayak, all in the name of science, adventure and research. Her work stems from a fascination and sense of guardianship over wild animals and wild places, and focuses on shifting ecological patterns, animal behaviour, and working with indigenous ranger networks on conservation strategies. She developed the 'taste aversion' technique to help save native animals from the threat of cane toads.

OUTCOMES

Australian Curriculum

Key focus areas

Science Stages 2-4

HASS Stages 2-3

Geography Stage 4

Literacy Stage 2-4

Sustainability Stages 2-4

Aboriginal and Torres Strait Islander
History and Culture Stages 2-4

OUTCOMES

NSW Curriculum

Key focus areas

Science Stages 2-4

HASS Stages 2-3

Geography Stage 4

Literacy Stage 2-4

Sustainability Stages 2-4

Aboriginal and Torres Strait Islander
History and Culture Stages 2-4

Before you begin reading this book

Front cover

- Look at the front cover. What is a reptile biologist? (*Gather information from the students about their understanding before the book is started.*)
- Have you heard of Georgia Ward-Fear? Find some images of her, as well as websites which may include interviews or research findings.
- Look at the sketch of Georgia on the front cover. Who has drawn this and why have they drawn her in this way?

Back cover

- Read the blurb. What can you gather about this book from the blurb? Why do we need blurbs for all types of books?

Before you start reading

- Highlight quote on page 5: *Follow your curiosity, express your unique self and always stop to observe the wonders of Nature; we are just one species amongst millions.*

Write this quote on a poster as a class or in small groups. Ask students to write ideas around the quote as to what it might mean to them. Add to this poster as the book is studied.

- Outline the glossary at the back and how to use it.
- Who is the author of this book? Explore other books Claire Saxby has written and discuss why she may have been asked to write this book.
- What is the difference between a biography and an autobiography? Explore what this book is and why it is a biography and not an autobiography. Discuss the importance of the **Aussie STEM Stars** series.

KEY PROJECTS

All of these projects can be adapted for Stage 2, 3 or 4.

Key project 1: Study of people – Literacy

Using the **Aussie STEM Stars** series or other books available in your library or online, compare and contrast three different Australian scientists.

Give a presentation that is engaging and interesting: think of documentaries with David Attenborough, interviews with Sarah Kanowski and Richard Fidler, become the scientist and speak to the class in the first person (as if you are the scientist).

Include:

- their life story
- why they have chosen the field they are in now
- any hardships they faced in their profession
- what they have discovered
- how they have made the world a better place
- where are they now?

Key project 2: How to write biographies – Literacy

This can be started in many different ways but should culminate in the presentation of a piece of writing, a speech or a visual item. This could also be presented as the student dressing up as the person and role playing them as they 'discuss their own life'.

1. Students choose someone who has made a difference in the world (encourage a positive impact, but could also be a negative one) and research.
2. Fill a bag or piece of art with symbols and images to represent that person and share.
3. Depending on the age of students, come up with at least one fact to one paragraph under the headings:
 - Childhood
 - Interests
 - Early career
 - Problems and significant events
 - Where are they now?
 - Why are they famous?
 - What do you admire about them?

Key project 3: Sustainability – Science

Examine the different projects Georgia has been on, in particular the cane toad project.

How has this project helped animals and people?

Find another project or two (by Georgia or other Australian scientists) that have helped to change the lives of animals and humans in Australia.

Have any of these projects influenced international projects?

Come up with a project that you think needs to be undertaken. Outline where it should take place, why it should take place and who would be involved (just like a real scientist needs to do before they can start).

Key project 4: Animal study – Science

- Why do we need to care for animals in the natural world?
- Why do we need animals?
- Research an animal that is endangered, including its life cycle, habitat and population.
- Find out how scientists are working to save them, why we need these animals and what ordinary people can do to help.

Key project 5: Investigation of endangered local species – Science

After reading the book, think about a research project you would like to take part in in your local area that would help endangered plants or animals.

Using the scientific investigation process, just like Georgia did in the book, come up with a topic area and write why you need to investigate it. Use this link from the Young Scientist Awards to learn how to conduct your investigation:

http://www.youngscientist.com.au/?page_id=5633

You can present your findings to your class and the local council or environmental group. The more people who know about your research, the better – especially if it means helping out that species.

Here are some examples of citizen science projects:

<https://biocollect.ala.org.au/acsa#isCitizenScience%3Dtrue%26max%3D20%26sort%3DdateCreatedSort%26isWorldWide%3Dfalse>

This could also include taking part in investigations that line up with:

- FrogID: <https://portal.frogid.net.au/get-involved>

Aussie Backyard Bird Count: <http://www.aussiebirdcount.org.au>

Key project 6: Reflection on literature

Students can fill in this table as they read to record their ideas and feelings:

Chapter	How did I feel during this chapter?	Character map: How did the main characters feel? What did they do?
What real-life events occurred? Use research to find some evidence to show this.	New language used	How has the author made you feel? Think of the language used to create tension, happiness, wonder, anxiety, and other emotions.

- What is some new information you learned through reading this book??
- How did your feelings change?
- Did how you see the characters change as you learnt more about them?
- What vocabulary have you learned from this book?

Teaching and learning activities

Chapter 1

- Make a list of the people in Georgia's family and the different pets she has.
- Why is the water rust-red at their house in Hampton?
- *They settled to feed on the fresh rain-washed grass while a gentle breeze moved through the eucalypts and rustled the leaves. Birds called, and in the distance, she heard others respond. She took a deep breath. She loved this place.*
Discuss how this paragraph paints a picture of where the holiday house is and also how Georgia feels about the place.
- Where are the Blue Mountains? Where is Leura? Where is Hampton? Locate these places on a map of New South Wales and then Australia. Use this map to refer to throughout the book, to show the diverse places Georgia has worked.
- Draw or look at a picture of a wallaby. Label the different body parts and uses based on the description:
... using their tails almost like a third leg when they were feeding. Yet when they were in a hurry, their tails were like a rudder, helping these magnificent animals to balance and change direction on the hop.
- Skink study: What are skinks and how many varieties are there? How does Georgia describe the one she saw? Find another picture of a skink and write your own descriptive paragraph.
- Bats: What are they and how many varieties are there? Are there bats local to your area? Find out the names of different local bat habitats.
- Why is starting a fire an important survival skill? What does Georgia's Dad tell her? What do you think? Find a real-life example of how fire has helped someone survive a night in the bush.
- Georgia knows that the best place for animals is in their natural environment, but she also understands the importance of zoos. Discuss why we have zoos and if we need them. What is their purpose, and can they be better? Either write an exposition to look at the pros and cons of zoos or conduct a debate in class.

Chapter 2

- Look at the life cycle of frogs. Draw the cycle and label the different stages.

Extension: Compare the life cycle of different types of frogs in Australia. Where can frogs live to ensure their life cycle can be completed?

- Look at what a bowerbird and its nest look like. Draw your own bowerbird nest or try to make one out of sticks just like Georgia has.
- Consider the question Georgia has asked her Dad about blue plastic: Do you think we can rid the world of plastic so that these animals are not tempted to use them in their nests? Find out about things in the natural world that are blue.
- Compare different hand skeletons for different animals, including humans: How are they the same and different? Which hands have different purposes and why? Which hand would you prefer to have?
- How are bones used in the natural world? Make a list of what bones can be used for by animals and by humans.
- Explore language: What is a **culvert**? What are **scavengers**?
- Debate this topic in your class: Snakes were so beautiful – why do people hate them so much?
- Look at the image of the snake and its insides. What do we have in common with snakes and other animals? Why are some organs the same while others are different? Choose another animal and find out what its insides look like. Compare this to the snake or to a human.
- Georgia's Dad designs new theme park rides at Australia's Wonderland. Explore some theme parks in Australia and the world. If you were an engineer, what theme park ride would you design
- Georgia's new hero is Richard Shine after she receives his snake book for her birthday. Who is Richard Shine? Explore further to discover more about him. Why is he Georgia's new hero? Do you have a hero? Who is he or she, and why do you admire them?

- Find this quote in the book: *She knew when the apples would ripen and when the berries would be ready for picking. She knew which gum tree would be in flower right now, and which would only flower in summer.*
How important are seasons for people who study the natural world? What do you know about your local area and how things change with the seasons? Create a season chart for your town to show what you know about fruits, flowers, animals, insects, fungi and vegetables!

Chapter 3

- Georgia encountered a red-bellied black snake. Describe the encounter and retell it as if you were the snake, or as if it were another character in the story. Compare the new encounter with Georgia's.
- Explore the role a snakecatcher plays in Australia and why they are needed.
- Learn more about the red-bellied black snake. Present your findings to someone else.

Extension: Compare this snake to another Australian snake. Rank Australian snakes in terms of how deadly they are, or how shy.

- Listen to sounds of the Australian bush, whether it be on a bush walk or on an audio stream. Tune in to what you can hear. Write or draw what you can see in your mind.
- What do different bird calls mean? Georgia tells us: *She knew it was a warning to other kookaburras to keep to their own territory.*
What do other calls mean? Why do kookaburras and other birds call in the morning? (Read *Kookaburra* by Claire Saxby to learn more about this bird.)
- Where do you think the bones were from in the eagle's nest? Find some images of different nests and what they can contain. Compare and explore the locations and materials used by different birds in Australia.
- **Bones:** Explore how scientists use the bones of a dead animal to learn about how it moved, what it ate, where it lived and how old it was.
- What are the rules for being safe in the bush? Create your own mini poster that could be given out to tourists who visit the Blue Mountains so that they know how to stay safe.
- Look at the meaning of **carnivore** and **herbivore**. What other names are given to the diets animals eat? And humans eat? Find similarities between these diets and discuss why they have different names.

Chapter 4

- Go back to the initial character map and add more details to the different people in Georgia's family and life. What else have we learnt about Georgia in this chapter? Add any changes that you've noticed in the characters.
- Read how Mrs Konn and her pets are described. Find or draw a picture to describe your pets or someone else's.
- How does Georgia react to learning the family is going to move house? Discuss the rise in her feelings and the words used to describe this.
- Explore language: What do **cabin fever** and **restructuring** mean?
- Draw, sketch, paint: Create what you think Georgia can see in her backyard from the description written in the novel.
- In this chapter we read the phrase: *Ants as busy as a school*. What other similes can be used to describe animals? What similes are often used that liken humans to animals?
- What does this mean about how Georgia is feeling? *Every day, reasonable-Georgia fought with angry-Georgia and sad-Georgia. It was good that Dad was working.* Have you ever felt like this? Which situations make you feel like this?
- Georgia and Elliot watch the golden orb weaving spider create her web. How is it described? How else could a spider-web construction be described? Find some images and videos of spider webs. Watch these then write descriptions of how different webs are constructed.
- What is the scientific word for spiders? Find out why we use the word 'spider' instead of the creatures' scientific name.
- Georgia follows the pathway many Australian students do once they have their Year 12 qualifications (choosing university subjects, then taking a year off before they start studying again). Draw the pathways that students can take, showing the various options.

Chapter 5

- What items would you pack if you were to live overseas for a year? Where would you go and why? What could you pack into one large backpack? Design your ideal backpack for a year of adventure.
- Read an excerpt from *The Songlines* by Bruce Chatwin. Why do you think Georgia might like this book?
- Look at a world map to see where Georgia lived and travelled overseas. Make notes on the map of the different animals she saw along the way.
- Cave paintings that are 30,000-year-old: What do these look like? What have they told us? What do we have in Australia that is like this?
- *The rain fell in sheets of sleet, full of mini ice darts.*
How else can rain be described?
- How do weather, seasons and temperature play a role in our Christmas celebrations? Compare the differences between how Australians celebrate and how people in European countries and North America (Canada and the USA) celebrate Christmas?

Chapter 6

- Many children don't seem to like maths. Why do you think this is? How could maths be taught differently at school so that more students like it and see it as an important subject to learn?
- *She would have preferred it was a gum tree, but any tree was better than concrete.*
Why does Georgia think this? Are trees better than concrete? Support your argument with at least ten reasons.
- *There was Muresh, an Iranian pharmacist, Anjana, a Nepalese physicist and Zoran, a Macedonian engineer. They were all migrants, but instead of being angry with not being able to work in their professions, they were grateful to be living in Australia and to have jobs.*
Why do some people who come to Australia have to work jobs that they are overqualified for?
- *Comfortable as if sitting in a bath of prickly pears.* (Page 75)
What sort of phrase is this? Why has the author used this phrase instead of saying she felt 'nervous' or 'out of place'?

- What is a field trip?
- Locate the Simpson Desert on a map. What Australian state is it in and why would scientists want to count animals there?
- Why does poo have another name, **scat**?
- How does Georgia describe the night sky? How else could you describe the sky?
- Have you ever waited for something like Georgia did for her exam results? How did it make you feel inside? Describe how the waiting and tension you felt.

Chapter 7

- Where is Taronga Zoo?
- What is moving house like? Georgia has done it a few times. How is this time different? Compare the different experiences using a table. Explore how her feelings are different, her age and the location she's moving to.
- What is a share house? How do people share a house?
- On page 87 we find out that Georgia started noticing numbers. Where did Georgia notice numbers? List all of the ways she noticed numbers around her.

Think about numbers in your life and where you use and see them. Create a list or an illustration that displays all of the ways we need numbers in our lives.

- Georgia meets Chris Dickman as part of her university studies and her desert study. What is Chris' job at the university? Why does he work at a university? What is his role in science? What does he do now?
- Richard Shine also works at Georgia's university and is the author of the snake book she was given many years before. What does Richard do at university? Find out more about him and his role in science and at university.
- What have you learnt about cane toads from reading this chapter? What else can you find out? Present a research project to show all the different methods scientists, conservationists and volunteers are using to try to lessen the damage cane toads are causing.

- What are meat ants? Why are they important to Georgia's study? What can you find that tells you how scientists noticed they liked the taste of young cane toads?
- Find out more about ants and the number of ant species we have in Australia. Explore and discuss the importance of ants in our ecosystems and prepare an argument as to why we need to take more care of them and their habitats.
- Georgia loves op-shops. What is an op-shop? Why is it a great option for buying clothes? Think of a few different reasons why you and your friends might decide to shop there before you go to a mainstream outlet.
- Create a list of the verbs and adjectives used to describe what Georgia is seeing when she observes the toads and other animals.
- Why do you think the media wanted to learn more about Georgia's research? Can you find media articles about her work that provide this information?

Chapter 8

- How different are the landscape, plants, animals and climate in Tasmania from the Northern Territory (NT)? Is there anything in common? Find out the similarities and differences.
- How long ago were Aboriginal people able to walk from Victoria to Tasmania? (Of course, that's not what they were called then!)
- How were Georgia's two jobs in Tasmania different? What were the aims of her two jobs? Which one would you have preferred to do and why?
- Research the Tasmanian devil's facial disease. Find out where in Australia scientists are caring for these animals and the different techniques they are using.
- Describe Georgia's experience in Norway by writing a descriptive paragraph. Use the five senses to help you imagine how she felt (see, hear, touch, smell and taste).
- Think about this quote: *In the conservation world, there would always be strong opinions both for and against how the work was being done.*
Why are there always strong opinions? Why do people disagree when a person or group is trying to save an animal or plant in the face of destruction from a human activity? Explore some current projects where there are strong opinions.

- Find out the locations of i) the Mornington Wilderness Sanctuary in Western Australia and ii) Scotia in New South Wales. Learn more about the conservation projects being done there.
- Add to your world map the places where Georgia has been and what she has done and learnt there.

Chapter 9

- Find out where Oombulgurri was by using the description shared in the book: *an abandoned town of empty houses on the bank of the Forrest River*.
- Discuss why towns around the world become abandoned. Explore the different reasons this occurs.
- Why do the tides rise so high and go down so low in the Kimberley? Look at some tide charts to see the differences between this and the beach closest to you. Explore further to find out how this affects the people who live in these areas.
- Look at the rainfall chart for the Top End of Australia. Add up the total rainfall then look at the discrepancies between the seasons. Link the rainfall to how people live in this area of Australia: think about how activities, events, farming, etc. need to be planned around this. Compare this to an area of Australia that has steady rainfall all year round, one with more seasonal rainfall and one with little rainfall.
- How hot does it get in the NT at different times of the year? How does this impact the work Georgia has to do? Compare this to when Georgia worked in Tasmania. How do you think her work days differed in each state?
- Why is it important that local indigenous landowners were part of Georgia's research group?
- Why do scientists use radio transmitters? How do they get them on the animals? Read how Georgia and her team did this.
- Why do you think giving the goannas names helped? Have you ever named an animal? Why did it get its name?
- Georgia became sick due to a bacteria. Find out more about this bacteria and Georgia's road to recovery.

Chapter 10

- What are **Turbo chooks** and how did they get that name?
- Where is Balangarra country? What other countries are there in Australia? Explore this and draw up a map.
- Anaconda sighting: How did Georgia notice the anaconda and why did it mean so much to her?
- What are 'papers' that Georgia talks about writing? What would have been in her papers? Find out some topics she wrote about and presented. Some may be published in online journals for you to read.
- What is Georgia doing now with the knowledge she gained working on the cane toad project and her Tasmanian Devil work?

Further literacy and thinking activities

- Write some questions for Georgia to answer. Send these to her via email and see if you get a response!
- Find another scientist who has worked towards caring for animals.
- Why is this series called **Aussie STEM Stars**? Find other books in this series to continue on your journey of learning about some great Australian scientists!

Thinkers' keys

<p><u>The Reverse Key</u> List the names of 10 Australian animals that are NOT endangered.</p>	<p><u>The What If? Key</u> What if there were no introduced pests in Australia, such as cane toads, foxes or deer?</p>	<p><u>The Disadvantage Key</u> What are some disadvantages of being a scientist who studies endangered animals?</p>
<p><u>The Combination Key</u> Combine the features of an introduced animal and a native animal. Draw the animal and list its important features.</p>	<p><u>The Brick Wall Key</u> (build up ideas like a wall) What are the characteristics of scientists who work in the field?</p>	<p><u>The BAR Key</u> (make it Bigger, Add something and Replace something) Threatened species' enclosure: - look up Devil Ark - add something to it - replace something on it Explain your changes and draw a labelled diagram.</p>
<p><u>The Variations Key</u> List some threatened species and suggest ways to help each one.</p>	<p><u>The Inventions Key</u> How could you encourage people to care more for Australian animals with a pen, a piece of paper and shoes?</p>	<p><u>The Prediction Key</u> Predict what will happen to cane toads within the next few years, using Georgia's research plus your own ideas.</p>
<p><u>The Alternative Key</u> List some ways to help young people enjoy mathematics without using worksheets. You might like to look at Eddie Woo's online classes.</p>	<p><u>The Ridiculous Key</u> What would happen if scientists could not work at universities anymore?</p>	<p><u>The Commonality Key</u> What do research scientists around the world have in common?</p>
<p><u>Question Key</u> The answer is "Nature". What could some possible answers be in relation to Georgia Ward-Fear?</p>	<p><u>The Alphabet Key</u> List different animals (from A-Z) that are part of research projects at the moment in Australia.</p>	<p><u>The Interpretation Key</u> The fox is an introduced animal that is classified as a pest that needs to be eradicated under Australia laws. How can this be done effectively and humanely?</p>
<p><u>Picture Key</u> Create a symbol that represents the work Georgia Ward-Fear has done for the animal world.</p>	<p><u>The Forced Relationship Key</u> How do a computer and a bushwalk help raise awareness of animals and whether they are endangered?</p>	<p><u>The Different Uses Key</u> List many different uses for a microscope.</p>

Elaboration of outcomes to the Australian Curriculum

Science

Stage 2

Living things can be grouped on the basis of observable features and can be distinguished from non-living things (ACSSU044).

Science involves making predictions and describing patterns and relationships (ACSHE050, ACSHE061).

With guidance, plan and conduct scientific investigations to find answers to questions, considering the safe use of appropriate materials and equipment (AC SIS054, AC SIS065).

Living things have life cycles (ACSSU072).

Living things depend on each other and the environment to survive (ACSSU073).

Stage 3

Living things have structural features and adaptations that help them to survive in their environment (ACSSU043).

Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE083).

Identify, plan and apply the elements of scientific investigations to answer questions and solve problems using equipment and materials safely and identifying potential risks (AC SIS086, AC SIS103).

The growth and survival of living things are affected by physical conditions of their environment (ACSSU094).

Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (ACSHE098).

Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE100).

Stage 4

Interactions between organisms, including the effects of human activities can be represented by food chains and food webs (ACSSU112) .

Classification helps organise the diverse group of organisms (ACSSU111).

Scientific knowledge has changed peoples' understanding of the world and is refined as new evidence becomes available (ACSHE119, ACSHE134).

Science knowledge can develop through collaboration across the disciplines of science and the contributions of people from a range of cultures (ACSHE223, ACSHE226).

People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity (ACSHE121, ACSHE136).

Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge (AC SIS124, AC SIS139).

Collaboratively and individually plan and conduct a range of investigation types, including fieldwork and experiments, ensuring safety and ethical guidelines are followed (AC SIS125, AC SIS140).

HASS

Stage 2

The representation of Australia as states and territories and as Countries/Places of Aboriginal and Torres Strait Islander Peoples; and major places in Australia, both natural and human (ACHASSK066).

The importance of environments, including natural vegetation, to animals and people (ACHASSK088).

The custodial responsibility Aboriginal and Torres Strait Islander Peoples have for Country/Place, and how this influences views about sustainability (ACHASSK089).

The use and management of natural resources and waste, and the different views on how to do this sustainably (ACHASSK090).

Stage 3

The environmental and human influences on the location and characteristics of a place and the management of spaces within them (ACHASSK113).

The contribution of individuals and groups to the development of Australian society since Federation (ACHASSK137).

Geography Stage 4

Unit 1: Natural and ecological hazards

Natural and ecological hazards represent potential sources of harm to human life, health, income and property, and may affect elements of the biophysical, managed and constructed elements of environments.

This unit focuses on identifying risks and managing those risks to eliminate or minimise harm to people and the environment. Risk management, in this particular context, refers to prevention, mitigation and preparedness. Prevention is about things we can do to prevent a hazard from happening. Mitigation is about reducing or eliminating the impact if the hazard does happen. Preparedness refers to actions taken to create and maintain the capacity of communities to respond to, and recover from, natural disasters, through measures such as planning, community education, information management, communications and warning systems.

Building on their existing geographical knowledge and understandings, students examine natural hazards including atmospheric, hydrological and geomorphic hazards, for example, storms, cyclones, tornadoes, frosts, droughts, bushfires, flooding, earthquakes, volcanoes and landslides. They also explore ecological hazards, for example, environmental diseases/pandemics (toxin-based respiratory ailments, infectious diseases, animal-transmitted diseases and water-borne diseases) and plant and animal invasions.

Literacy

Stage 2

Discuss texts in which characters, events and settings are portrayed in different ways, and speculate on the authors' reasons (ACELT1594).

Draw connections between personal experiences and the worlds of texts, and share responses with others (ACELT1596).

Make connections between the ways different authors may represent similar storylines, ideas and relationships (ACELT1602).

Discuss how language is used to describe the settings in texts, and explore how the settings shape the events and influence the mood of the narrative (ACELT1599).

Plan and deliver short presentations, providing some key details in logical sequence (ACELY1677).

Plan, rehearse and deliver presentations incorporating learned content and taking into account the particular purposes and audiences (ACELY1689).

Use comprehension strategies to build literal and inferred meaning and begin to evaluate texts by drawing on a growing knowledge of context, text structures and language features (ACELY1680).

Use comprehension strategies to build literal and inferred meaning to expand content knowledge, integrating and linking ideas and analysing and evaluating texts (ACELY1692).

Stage 3

Clarify understanding of content as it unfolds in formal and informal situations, connecting ideas to students' own experiences and present and justify a point of view (ACELY1699).

Plan, rehearse and deliver presentations for defined audiences and purposes incorporating accurate and sequenced content and multimodal elements (ACELY1700).

Navigate and read texts for specific purposes applying appropriate text processing strategies, for example predicting and confirming, monitoring meaning, skimming and scanning (ACELY1702).

Make connections between students' own experiences and those of characters and events represented in texts drawn from different historical, social and cultural contexts (ACELT1613).

Analyse and evaluate similarities and differences in texts on similar topics, themes or plots (ACELT1614).

Identify, describe, and discuss similarities and differences between texts, including those by the same author or illustrator, and evaluate characteristics that define an author's individual style (ACELT1616).

Plan, rehearse and deliver presentations, selecting and sequencing appropriate content and multimodal elements for defined audiences and purposes, making appropriate choices for modality and emphasis (ACELY1710).

Analyse how text structures and language features work together to meet the purpose of a text (ACELY1711).

Use comprehension strategies to interpret and analyse information and ideas, comparing content from a variety of textual sources including media and digital texts (ACELY1713).

Stage 4

Identify and explore ideas and viewpoints about events, issues and characters represented in texts drawn from different historical, social and cultural contexts (ACELT1619).

Reflect on ideas and opinions about characters, settings and events in literary texts, identifying areas of agreement and difference with others and justifying a point of view (ACELT1620).

Recognise and analyse the ways that characterisation, events and settings are combined in narratives, and discuss the purposes and appeal of different approaches (ACELT1622).

Create literary texts that adapt stylistic features encountered in other texts, for example, narrative viewpoint, structure of stanzas, contrast and juxtaposition (ACELT1625).

Use comprehension strategies to interpret, analyse and synthesise ideas and information, critiquing ideas and issues from a variety of textual sources (ACELY1723).