

### **Stamp Collecting Month overview**

Stamp Collecting Month (SCM) provides an exciting way for middle to upper primary school students and teachers to engage with interesting learning focus areas through stamps. This year's theme, Reef Safari, focuses on the Great Barrier Reef. Learn about one of the world's most remarkable natural wonders while engaging in curriculum aligned resources.

#### Lesson overview

In this lesson students will investigate the coral ecosystem of the Great Barrier Reef to understand its complex biodiversity and how all living things on the reef depend on each other and the environment to survive. Students will learn about the producers, the consumers and the decomposers found within the Great Barrier Reef system. They will research how the ecosystem has changed over the years due to natural processes and human activity.

# Learning intentions

Students will:

- » Investigate how plants provide shelter for animals
- » Investigate the roles of living things in a habitat
- » Observe and describe predator-prey relationships
- » Predict the effects when living things in feeding relationships are removed or die out in an area

### **Assessment**

- » Monitoring understanding throughout class discussion and questioning
- » Work samples
- » Student reflection and self-assessment
- » Teacher feedback

## Differentiation

- » Support: Students complete the research activity using the five marine creatures featured on the SCM issue with teacher support or as a whole class.
- » Structured: Students complete the research activity in collaborative learning groups, with teacher support when required.
- » Extension: Students complete their own individual or collaborative research task, creating a food web to illustrate their understanding of the Great Barrier Reef ecosystem. The food web should feature the five marine creatures featured on the SCM issue.

### Resources

- » Internet access and Interactive Whiteboard (IWB), as well as internet access for students
- » Access to: www.auspost.com.au/scm
- » SCM Great Barrier Reef video
- » SCM Reef Safari issue individual stamp, minisheet and maxicard images located on the website
- » Student workbook or devices to record their research and learning

### **Australian Curriculum links**

Year Four - English

Literacy:

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

### Year Four - Science

Biological sciences:

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

## <u>Year Four – Humanities and Social Sciences</u> *Geography:*

» The importance of environments, including natural vegetation to animals and people (<u>ACHASSK088</u>)

### **Cross curriculum priorities**

» Sustainability

## **General capabilities**

- » Literacy
- » Critical and Creative Thinking
- » Personal and Social Capability
- » Ethical Understanding
- » Information and Communication Technology (ICT) Capability





Lesson introduction 10 mins

1. Explain to students that this year's Stamp Collecting Month theme is the Great Barrier Reef. Ask students if anyone has visited the Great Barrier Reef and provide opportunity for them to share their experiences of what they observed in the environment.

- 2. Show students the video of the Great Barrier Reef located on the SCM website.
- 3. Explain that in every habitat living things depend on the environment and each other to survive and in doing so, take on certain roles such as producers, consumers and decomposers.
- 4. Ask students what they think the definition of each is.



### **Producers**

Produce their energy from the sun and make their own food through the process of photosynthesis. Most producers are plants and are the beginning of any simple food chain.



### Consumers

There are two main types of consumers. Primary consumers are herbivores and obtain energy by eating plants. Secondary consumers are often carnivores and obtain energy by eating other animals.



### Decomposers

These are organisms such as bacteria that break down organic matter from dead plants and animals into nutrients, the nutrients are returned to the soil and the food chain begins again.

5. Show students the five stamps from the Reef Safari issue, you can view an enlarged version of each stamp on the SCM website. Study each of the five marine creatures featured and ask students to identify which animals are producers, consumers or decomposers.



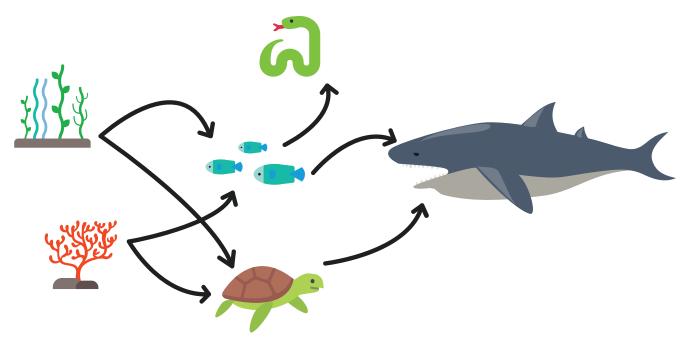




Main body of teaching 40 mins

6. Explain to students that the Great Barrier Reef is the world's largest reef system. It's so large that it can even be seen from space. Keeping the reef healthy is important for many reasons, such as protecting the coastline from tropical storms and waves, and providing habitats and shelter for a diverse range of marine organisms.

7. Explain to students that they will complete a research activity in small groups to investigate how living things in the Great Barrier Reef depend on each other and the environment to survive. Students will also research and identify current threats to the Great Barrier Reef including the impact of human activity.



### Core activity:

- 8. Break students up into small groups. Each group will need access to a device and the internet for research. Students will work together to research and form a presentation which they will present to the whole class at the conclusion of the lesson. This presentation can be in a form of their choosing, such as a speech, PowerPoint, news presentation etc.
- 9. In their presentation students will be required to provide the following information:
  - » A fact file outlining information about the producers, consumers and decomposers found within the Great Barrier Reef including identifying at least one specific example of a marine organisms for each.
  - » A brief explanation on the importance of the relationship between the living organisms and the environment and how they depend on each other to survive.
  - » An example of a current effect of human activity on the Great Barrier Reef and how it is threatening the ecosystem.
  - » Their suggestion to a solution for the threat and how this may be implemented on scale.

#### **Extension task:**

10. Students work in small collaborative groups or as individuals to construct a food web that illustrates how the marine life within the Great Barrier Reef depend on each other and the environment to survive. The food web must identify the producers, consumers and decomposers within the ecosystem and must feature the five animals found in the current Reef Safari issue. Students will also be required to identify and provide an example of one part of their food web that is currently at risk due to human activity, why it is at risk, and suggest a possible solution.

Plenary 10 mins

- 11. Once students have finished their research tasks, give groups the opportunity to present to the whole class.
- 12. Ask students to identify and reflect on one key learning about the Great Barrier Reef and how living things in the ecosystem work together in order to survive.
- 13. Display student work around the classroom for further reading and interest.

