



Australian Government
Great Barrier Reef
Marine Park Authority



Reef Guardian
School

REEF GUARDIAN SCHOOL
**PROGRAM
OVERVIEW**



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First Nations Acknowledgement

The Great Barrier Reef Marine Park Authority acknowledges the expertise, wisdom, and enduring connections that have informed the guardianship of the Reef for millennia. We pay our respects to the Traditional Owners as the first managers of this Land and Sea Country, and value their traditional knowledge which continues to inform the current management and stewardship of the Reef for future generations.



Foreword

The Great Barrier Reef is home to thousands of species of plants and animals and is one of the most complex natural systems on Earth. The Reef is recognised for its outstanding universal value and is vitally important to First Nations People, communities and industries that depend on a healthy reef for community benefits and livelihoods.



The Great Barrier Reef Marine Park Authority (Reef Authority) is Australia's lead management agency for the Great Barrier Reef. The vision that drives the Reef Authority's work is *a healthy Great Barrier Reef for future generations*. The Reef Guardian School program is an initiative of the Reef Authority to provide teaching and learning opportunities that raise awareness, understanding and appreciation for the Reef and its connected ecosystems.

The Reef Authority's commitment to education and partnering with Reef-dependent industries and communities is targeted at encouraging Reef stewardship action, creating lifelong ambassadors for the Reef, and enabling inter-generational change.

To celebrate its 20-year anniversary in 2023, the Reef Guardian School program will be expanding its reach to include schools from all around Australia and

globally. Our world is more connected now than ever before and we all rely on healthy oceans and seas. The Reef Authority recognises the need for a global network of Reef Guardians to help protect the Great Barrier Reef and reefs all around the world.

I encourage you and your school to join the Reef Guardian School program and become part of a like-minded network of schools contributing positive actions towards Reef protection and resilience for future generations.

A handwritten signature in blue ink, consisting of the letters 'JTH' followed by a long, sweeping horizontal line that curves upwards at the end.

Josh Thomas

Chief Executive Officer
Great Barrier Reef Marine Park Authority

Welcome to the Reef Guardian School journey



The Reef Guardian School program started in 2003 to enable the next generation of young leaders to become stewards of the Reef, by understanding the threats to its sustainable future, and their role in protecting it.

Reef Guardian Schools care for the Reef and undertake positive actions within their school and local community that contribute to Reef protection and resilience. Through the Reef Guardian School Portal, schools share their actions and achievements and connect and network with other Reef Guardian schools nationally and internationally.

Reef Guardian Schools have a proud history of achieving a wide range of Reef stewardship actions, such as:

- Implementing waste management and recycling programs
- Planting native species and water smart gardens
- Monitoring classroom energy consumption and installing renewable energy systems

- Engaging in citizen science activities to survey the health of coral reef ecosystems, mangrove and freshwater environments, and the impact of marine debris

Being involved in the Reef Guardian Schools program provides opportunities for students to engage in inquiry and place-based learning experiences. A key focus for the program moving forward is to build student capacity for global competency. Being globally competent is a crucial skill for our future young leaders to understand issues of local, global, and cultural significance and contribute their voice to lead meaningful and sustainable change.

The Reef Guardian School program empowers students to learn about the multiple, cumulative, and increasing threats that face the Reef and coral reef ecosystems worldwide and take informed action to improve future outcomes for the Reef.

Pillars of Reef Guardianship

Reef Guardian Schools are committed to the CLASS pillars of Reef guardianship (Care, Learn, Act, Share, Stewards).

The CLASS pillars are flexible to allow schools to individualise their approach to Reef Guardianship.

The following examples outline how schools can incorporate each of the CLASS pillars.



Care

Care for the Reef and foster a sense of shared responsibility

Reef Guardian Schools CARE and respect the Reef, its catchments and community.

Schools implement Reef Guardian actions into school planning and policy development. They establish a sense of community and pride within their school, working alongside the Reef Authority to provide for the protection, wise use,

understanding and enjoyment of the Great Barrier Reef. Students are empowered to become active citizens within the school and local community and contribute their voice to decision-making and leadership, giving them a sense of involvement in the bigger picture.



Learn

Learn to increase knowledge and understanding about the value of the Reef, how it is managed and the threats to its future

Reef Guardian Schools LEARN about the Reef and its connected ecosystems

Schools incorporate teaching and learning opportunities about coral reefs into their curriculum. Students investigate issues in the marine environment including the Great Barrier Reef to build capacity for inquiry skills. Students learn about the principles of ecologically sustainable development and adopt behaviours and practices which protect the Reef. Teachers have access to an extensive range of educational resources from early learning through to tertiary level through the Reef Authority. These resources are aligned with the Australian

Curriculum, available for free to all educators and are adaptable to suit individual teaching and learning needs. Teachers have access to opportunities to build their capacity to support teaching and learning about the Reef.



Act

Act for environmental sustainability and appreciate that all actions collectively matter

Reef Guardian Schools ACT for environmental sustainability and appreciate that all actions collectively matter

Schools undertake sustainable actions within their school grounds and local community. They connect with local stakeholders and build partnerships to enhance the outcomes of Reef

Guardian projects. Students develop an understanding of resource management and build capacity for making decisions on environmental issues affecting the Reef. Actions can address a wide range of environmental and sustainable outcomes such as water and waste management, energy consumption, litter, and plastic reduction to name a few.



Share

Share learnings with others to encourage wider positive influence

Reef Guardian Schools SHARE knowledge and learnings from the program

Schools promote ecologically sustainable actions within the school and local community. They seek opportunities to share student knowledge and learnings

about the Reef, and celebrate the successes and achievements of students, teachers and their communities acting as Reef champions. Schools network and collaborate with other Reef Guardian Schools to enhance outcomes and share insights and opportunities with each other.

Throughout the year our students have been provided with many amazing opportunities to engage in project-based learning both inside and out of the classroom, engaging with experts in marine science who we wouldn't normally have access to.

Matthew Radburnd, Newman Catholic College, Cairns



Stewards

Stewards of the Reef, building Reef resilience for future generations

Reef Guardians Schools act as STEWARDS to help protect and build resilience for the Reef

Schools undertake Reef stewardship actions that are directly beneficial to the Great Barrier Reef derived from the key threats identified in the Reef Authority's *Great Barrier Reef Outlook Report*. Climate change is identified as the greatest threat facing the Reef. A global issue means that any climate action taken around the world will contribute to Reef resilience.

Schools seek opportunities to demonstrate responsible Reef practices when visiting the Reef. While visiting the Reef, students have opportunities to take part in the Be a Marine Biologist for a Day program and participate in citizen science activities such as the Eye on the Reef Monitoring and Assessment program.





Embedding First Nations Culture

First Nations People have been linked with the Great Barrier Reef since time immemorial. Prior to sea level rise and the Reef forming more than 7000 years ago, First Nations People lived on what is now the seafloor, and cultural knowledge of this time's practices and sites remain. After the Reef formed, First Nations People cared for their Land and Sea Country through interweaving their culture and spirituality with sustainable use of its resources.

The Reef Guardian School program encourages First Nations students and communities to connect with each other across Australia and with First Nations students around the world. This is an opportunity for First Nations students to share their learning and aspirations for their Land and Sea Country. The Reef Guardian School program also encourages all students to learn about First Nations histories, cultures, knowledge, and traditions as well as connecting with First Nations people in their local community.

The Aboriginal and Torres Strait Islander Histories and Cultures cross-curriculum priority provides an opportunity for all young Australians to gain a deeper understanding and appreciation of Aboriginal and Torres Strait Islander histories and cultures, knowledge traditions and holistic world views. This knowledge and understanding of, and connection with, the world's oldest continuous living cultures will help learners to participate in the ongoing development of Australia as a nation.

Australian Curriculum, Assessment and Reporting Authority (ACARA)



Curriculum Connections

The Reef Guardian School program delivers contemporary education resources for students to learn about marine biodiversity, habitats, ecosystems, coral bleaching, and climate change. Aligned with the Australian Curriculum, these resources support multiple subject areas across all student year levels. These resources are adaptable to suit other international curriculum programs looking to incorporate Reef education. Teaching and learning about Reefs and their connected ecosystems complements broader educational frameworks such as the United Nations Sustainable Development Goals and the Organisation for Economic Co-operation and Development (OECD) Global Competence Framework.

As the world's natural ecosystems continue to face global threats it is imperative for the next generation of young leaders to understand issues of local, global, and cultural significance and contribute their voice towards solutions. Reef Guardian students develop capacity for global competency by using their interdisciplinary knowledge to analyse data, engage with multiple cultural perspectives, formulate viewpoints, and take individual and collective local actions to mitigate these global threats.

PISA 2024 Global Competence. OECD:

<https://www.oecd.org/pisa/innovation/global-competence/>

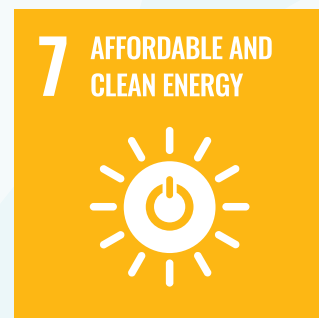




Station 1

SUSTAINABLE DEVELOPMENT GOALS

that the Reef Guardian
program aligns with





Collaborative Networks

Reef Guardian Schools are encouraged to work in collaboration with their local government or municipal to learn more about the environmentally sustainable projects and activities being undertaken within their community.

Forming collaborative partnerships is an important aspect of the program that enables Reef Guardian students to build capacity for global competency, particularly, understanding how local actions contribute to global outcomes.

The Reef Guardian Councils program is a collaborative stewardship partnership between local governments in the Great Barrier Reef catchment and the Reef Authority. The Reef Guardian Councils include Bundaberg, Cairns, Cassowary Coast, Central Highlands, Cook Shire, Douglas Shire, Gladstone, Hinchinbrook, Isaac, Livingstone Shire, Mackay, Mareeba, Rockhampton, Tablelands, Townsville, Whitsunday, Wujal Wujal, and Yarrabah.

Reef Guardian Councils undertake environmental initiatives in the following areas:

- water management such as waterways rehabilitation, water monitoring, urban stormwater treatment, wastewater, and trade waste treatment
- waste management such as source reduction, waste avoidance, waste reuse and recycling
- land management such as vegetation and pest management, resource assessment, erosion control, and land planning
- climate change such as planning and policy, energy and resource efficiency, and community education.

Reef Guardian Schools have opportunities to attend networking events to meet with representatives from local Reef Guardian Councils to create partnerships to work on environmental issues within their school, and local community.

Reef Guardian Champions

Teachers and students can champion Reef guardianship.

Using a “by schools, for schools” approach, we empower the network of Reef Guardian Schools to partner with other schools to deliver inter-school activities, events, and initiatives.

Teachers and students can champion Reef guardianship through a range of ways such as:

- organising inter-school activities
- speaking at conferences and forums

- networking through sister school relationships, and
- providing mentoring and training for new Reef Guardian Schools.

Reef Guardian Champions are also committed to developing opportunities beyond their school, through partnerships with like-minded local and international community groups.

As Reef Guardians, we learn that the small changes we adopt in our schools and homes can collectively become large changes that can help protect our Great Barrier Reef.

Judith Stutchbury, Kalkie State School, Bundaberg



Great Barrier Reef Marine Park Authority
HERMIT PARK

HERMIT PARK

LEADER 22

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**FUTURE LEADER
ECO CHALLENGE**

REGIONAL WINNER

Certificate awarded to
Reeseey Samantha

Australian Government
Great Barrier Reef
Marine Park Authority

**FUTURE LEADER
ECO CHALLENGE**

REGIONAL WINNER

Certificate awarded to
Lucy

Eco Challenge

The Eco Challenge provides students with opportunities to develop their STEAM inquiry skills and apply innovative thinking to real-world issues.

The current issues facing the sustainable future of the Great Barrier Reef and coral reefs worldwide require a multidisciplinary mitigation approach.

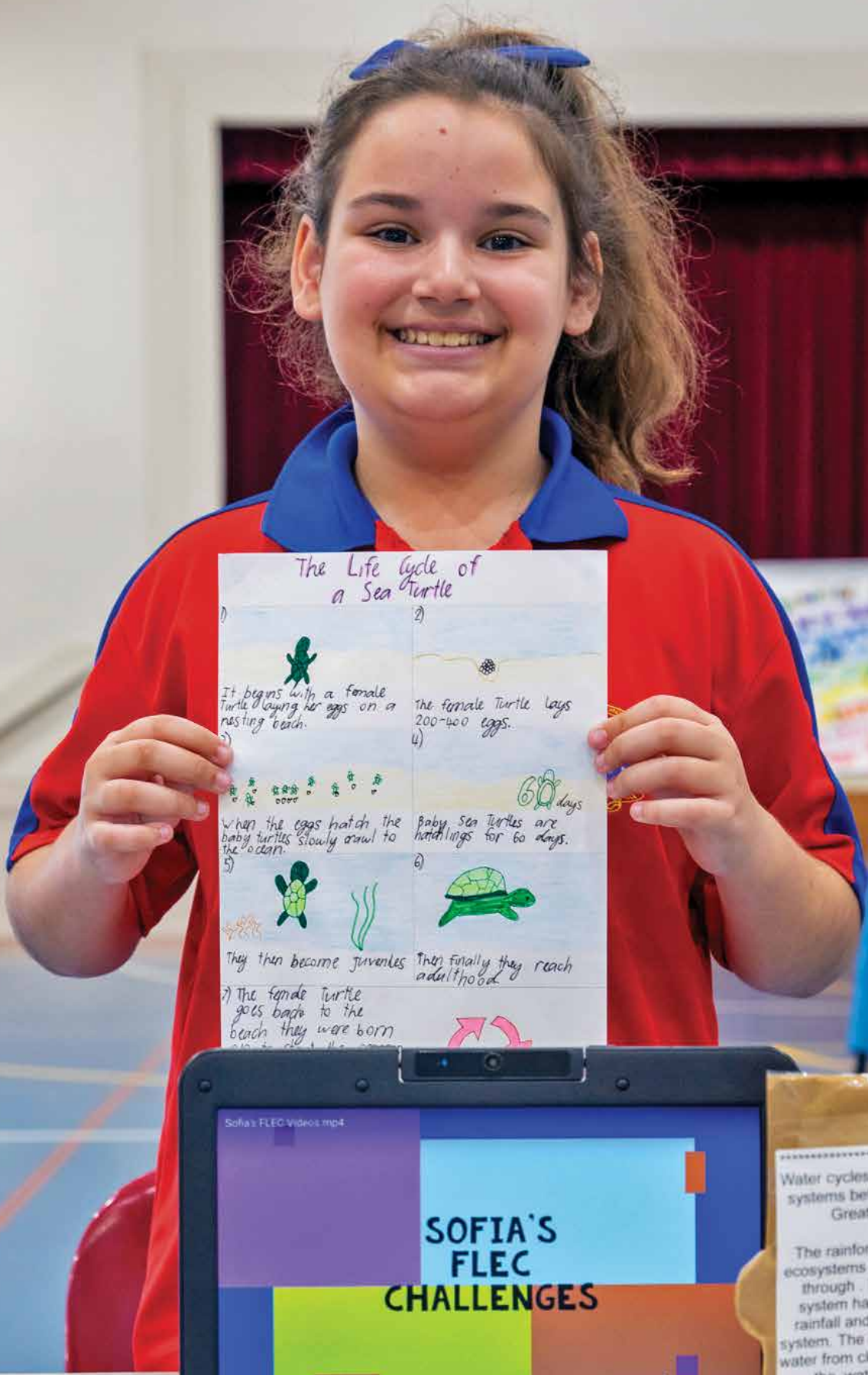
The open-ended nature of the Eco Challenge provides opportunities for students to learn about the thematic and cross-sectoral issues identified in the United Nations Sustainable Development Goals.

Students build capacity for environmental awareness, problem-solving, entrepreneurial thinking, teamwork, and presentation skills.

The challenge promotes positive student agency towards the Reef, to enable intergenerational change.

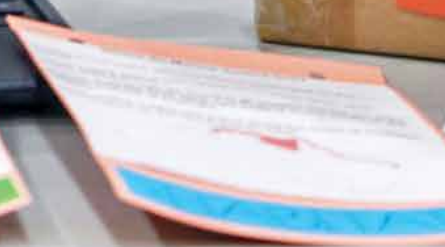
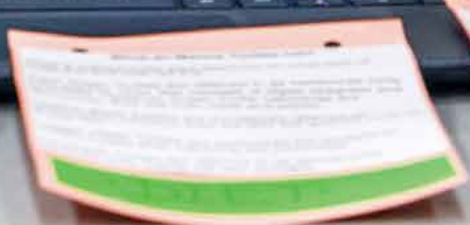
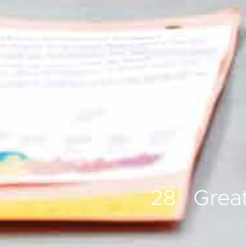
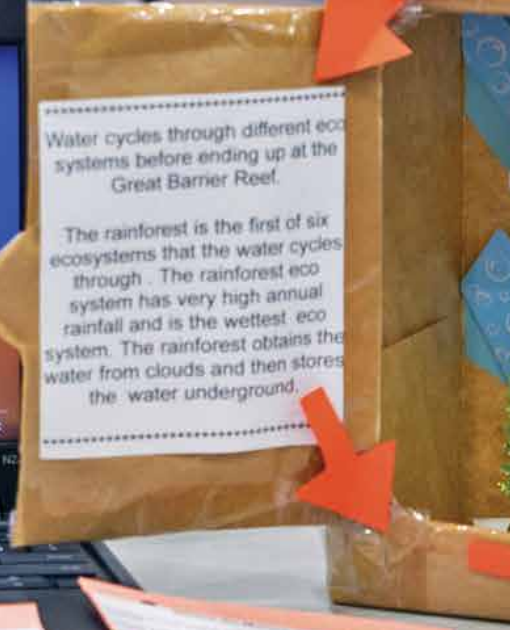
The Reef Guardian School program links curriculum with the real world to help students understand their connection to the environment. Students learn about the valuable contribution they can make to protecting the Reef through hands-on action.

Samantha Meager, St Ursula's College, Yeppoon



The Life Cycle of a Sea Turtle

- 1) It begins with a female Turtle laying her eggs on a resting beach.
- 2) The female Turtle lays 200-400 eggs.
- 3) When the eggs hatch the baby turtles slowly crawl to the ocean.
- 4) Baby Sea Turtles are hatchlings for 60 days.
- 5) They then become juveniles.
- 6) Then finally they reach adulthood.
- 7) The female Turtle goes back to the beach they were born.



Yearly Planner

Reef Guardian Schools and their local communities are encouraged to take a ‘plan, implement, promote and review’ approach across the school year.

PLAN

- Consult your Reef Guardian School community – teachers, students, parents, and community – to brainstorm ideas
- Establish a Reef Guardian committee or use an existing environmental or leadership team
- Use the annual action plan on the Reef Guardian School portal as a planning tool to select your school’s actions for the year

IMPLEMENT

- Undertake actions and initiatives that align to the CLASS pillars of Reef guardianship (Care, Learn, Act, Share, Stewards) identified in your action plan
- Celebrate key environmental days such as World Turtle Day (May 23), World Environment Day (June 5) and World Oceans Day (June 8)
- Use teaching and learning resources that provide student learning outcomes
- Attend professional learning opportunities to build teacher capacity
- Participate in the annual Eco Challenge
- Work with the wider community to support your school’s projects and activities

- Reef Guardian Champions seek opportunities to involve and engage with other schools
- Enhance mutual outcomes with other environmental and STEAM based programs and initiatives

PROMOTE

- Share your school’s progress on the annual action plan by completing actions on the Reef Guardian School portal
- Promote your Reef Guardian outcomes to your school and local community (for example, school newsletter, local media)
- Celebrate your school, teachers and students’ actions and achievements (for example, student and teacher awards)

REVIEW

- Bring together your school’s key Reef Guardian teachers and students to reflect on the successes and achievements of your school’s annual action plan
- Finalise your school’s progress on the annual action plan by completing actions on the Reef Guardian School portal and complete the end of year survey



Actions

Reef Guardian teachers and students can undertake a range of ecologically sustainable actions throughout the year.

In school activities:

- drain stenciling to provide a visual reminder to the community of the link between stormwater drains and waterways, wetlands and the Reef.
- litter free lunches
- school waste audit / source reduction plan
- install energy monitors to track your school's energy use
- participate in Reef Education virtual learning experiences, and
- invite a First Nations elder to share their knowledge about land and sea country.

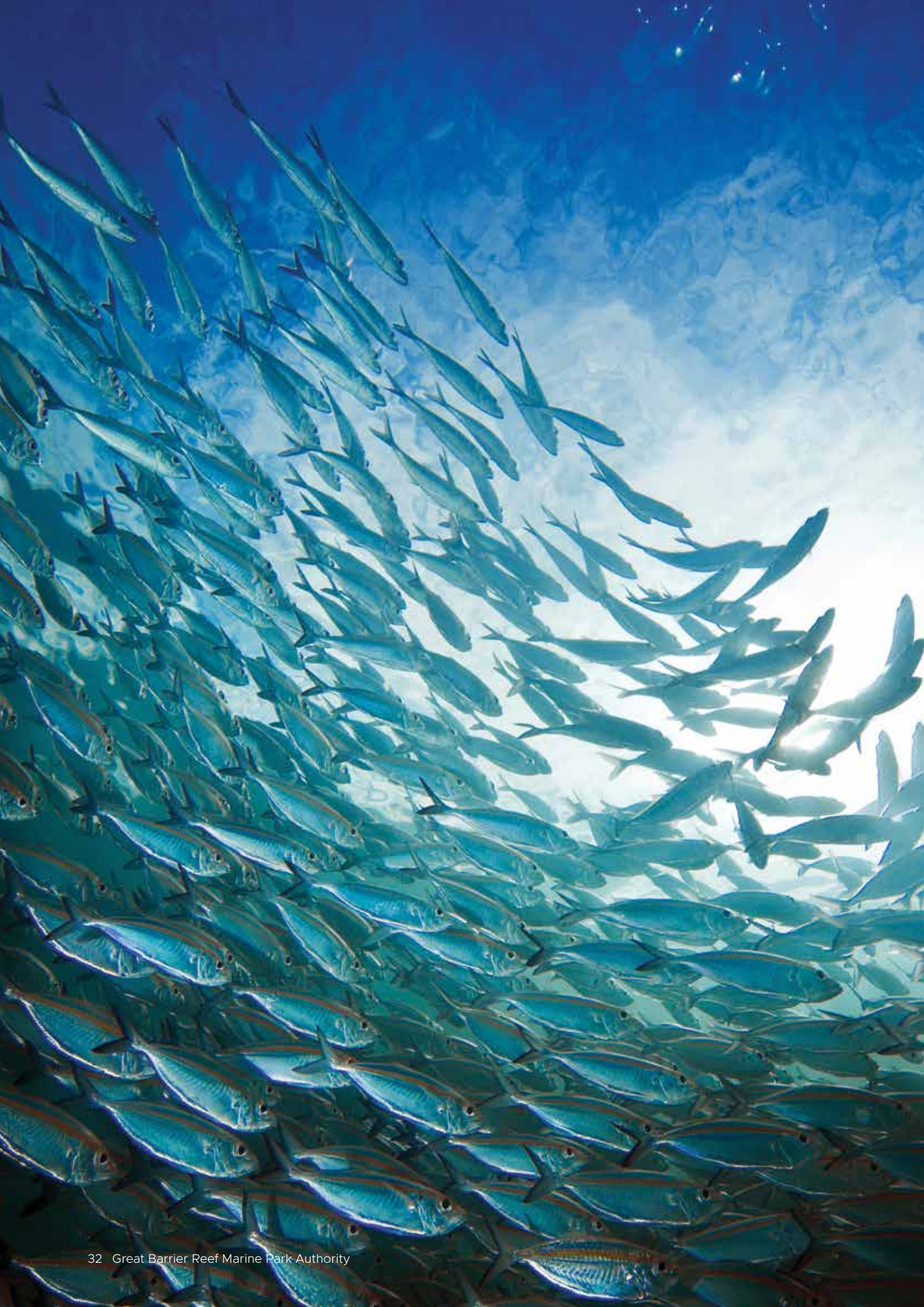
Excursion activities:

- a student field trip to visit the Reef with a High Standard Tourism Operator
- participate in a citizen science activity
- conduct a marine debris clean-up at a local beach
- a student field trip to visit a recycling facility
- adopt a local creek or catchment close to your school, or
- host a stall at local events to share your school's actions with your community.

The Reef Guardian School Brand Style Guide is a useful resource to help promote your students' Reef guardianship actions and achievements. Periodically, the Reef Authority will also produce an accompanying communication and marketing toolkit with great ideas to help you keep your school community informed about the positive impact you are making through your participation in the program.



Scan the QR code to access the Brand Style Guide



Join the Network

Schools can join the program through the Reef Guardian School Portal.

Once a school is registered, teachers can then create their own logins and will automatically become a member of the network of Reef Guardian Schools who are dedicated to taking action to build Reef resilience.

Through the Reef Guardian School Portal teachers can:

- select which activities their school will undertake as part of the program in that calendar year

- see what actions other Reef Guardian Schools are doing
- network with other teachers through the Portal Dashboard
- access free educational resources aligned with the Australian Curriculum, and
- keep up to date with news about the Reef.

At the end of the year, schools complete their annual action plan and fill in a program end-of-year survey.



Scan the QR code to access the Reef Guardian School Portal.



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