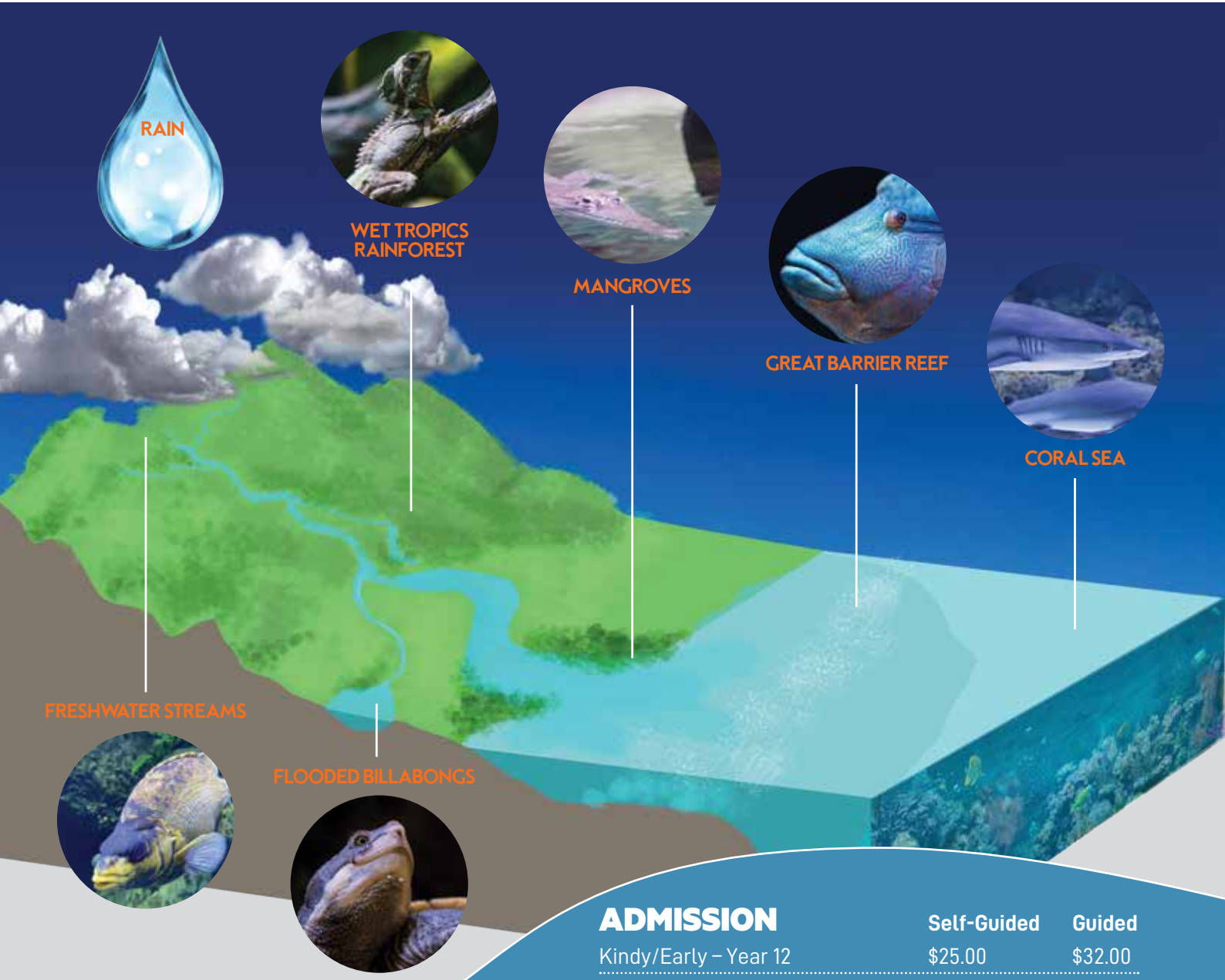
CAIRNS AQUARIUM

25/26 EDUCATION PROGRAMS

EDUCATION LEADS TO CONSERVATION

Encourage students' innate curiosity for the amazing creatures of the Great Barrier Reef and Wet Tropics Rainforest with our hands on approach to teaching and learning. Our wildlife educators are reef and rainforest experts, constantly developing ways to engage and connect students with the living environment – to inspire them to value, conserve and make a difference for the future.



Throughout your journey within the Cairns Aquarium, your students will venture through key eco-systems and habitats of Northern Queensland. Starting in the freshwater creeks and streams, you will follow a drop of rain as it heads towards the coastline, flowing into the Wet Tropics Rainforest, Mangroves and Great Barrier Reef, with the final destination ending in the depths of the Coral Sea.

ADMISSION

	Self-Guided	Guided
Kindy/Early – Year 12	$25.00	$32.00
OSHC/Vacation Care	$25.00	$32.00
Students 18+	$32.00	$35.00
Teachers		Free of Charge

Minimum of 1 teacher every 20students required.

Minimum 15 students for a guided tour.
Groups under 15 students that would like a guided tour will incur an additional $200 guide fee.

PROGRAM TIMES

Self-Guided Groups Available Monday – Sunday	9:30am – 2:00pm
Guided Groups Available Monday – Saturday	9:00am – 2:00pm

LEARN. INTERACT. DISCOVER.

Cairns Aquarium education programs are designed for all year levels, focusing on key eco-systems and species of North Queensland, in an all-weather venue. Students get to experience 72 animal habitats spread out over 11 zones, which include:

- Creeks and Streams
- Freshwater River Systems
- Flooded Waterways and Billabongs
- Wetlands and Swamps
- Tropical Rainforest
- Forest Floor
- Rocky Escarpments
- Life in the Mangroves
- The Great Barrier Reef
- Dangers of the Reef
- Depths of The Coral Sea

Programs are designed for your individual group and year level and include a wildlife educator, who will take you on a journey across tropical north Queenland.

YOUR TOUR INCLUDES

- Expert wildlife educator tour for 1.5 hours
- Student work book (emailed on confirmation)
- Hands on interactive session at the marine touch tank

ADD ON EXPERIENCE

CAIRNS TURTLE REHABILITATION TOUR

Meet our rescued sea turtles behind the scenes in our turtle hospital facility. On this additional experience you will receive a full guided tour of the Cairns Turtle Rehabilitation Centre on site.

Learn about the dangers that sea turtles face, and how we rescue, treat, release and track these precious animals. Students will gain an understanding of how we can further protect and conserve marine turtles and their habitats in the wild.

STUDENTS $14.00 STUDENTS 18+ $20.00 TEACHERS - Free of Charge *max 45 visitors per day to the Turtle Hospital

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Journey of the Cairns Aquarium: Throughout your journey you will venture through key ecosystems and habitats of Northern Queensland, Australia. Starting in the freshwater creeks and streams you will follow a drop of rain, which flows towards the coast line, running through the rivers into the Wet Tropics Rainforest, through to the Mangroves, Great Barrier Reef and finally, out into the Coral Sea.

Foundation Year

Get ready for your journey through the Cairns Aquarium! On this journey students will build their wonder and natural curiosity by observing living things and by exploring changes in environments such as the Wet Tropics Rainforest, river systems and the Great Barrier Reef. Students will seek answers to questions they pose; like how are a shark and a barramundi alike and different? Using their senses to gather different types of information, students will learn about the animals in various ways, through sight, sound and touch at our interactive marine touch tank. As they learn about the various animals here at the Cairns Aquarium, they will develop an understanding that making observations and predictions is a core part of science.

Curriculum outcomes:

- Connectedness: Children are connected with and contribute to their world.
- Active Learning: Children are confident and involved learners.

Curriculum links:

AC9SFU01, AC9SFH01, AC9SFI01, AC9SFI02, AC9SFI03, AC9SFI04, AC9SFI05

Year 1 – Living Adventure!

Students will see firsthand how an animal is designed for its specific habitat and what the animals' features do to help it survive. They will learn about daily and seasonal changes in different environments such as rivers, the Wet Tropics Rainforest and the Great Barrier reef. They will investigate the ways environmental changes affect animals living in these habitats. Along their journey students will extend their understanding of patterns by exploring patterns in daily and seasonal events in different environments and how it impacts animals. We will investigate questions students may have such as "Does a fish have a home?". Along their journey students will observe, recognise and describe the needs of animals such as air, water, food, and shelter, what they use them for and how these features enable the animals to survive in their environment. Students will gain more of an understanding as to how humans impact the needs for other living things and how we can care for living things in these environments.

Curriculum links:

AC9S1U01

- Identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs

AC9S1U02

- Describe daily and seasonal changes in the environment and explore how these changes affect everyday life

Extra Curriculum links: AC9S1H01, AC9S1I01, AC9S1I02, AC9S1I05, AC9S1I06

Year 2 – Science and Patterns

Students will become scientists for the day! Students will learn how science is used day to day at the aquarium to care for our wildlife. They will even have the opportunity to observe animals that look nothing like their offspring and will learn how they change and develop into adults. We will introduce the students to the patterns we observe in order to make predictions about our wildlife. This will be investigated throughout our different habitats including the forest floor, mangrove nursery, and reef zones. Students will use a range of methods to sort information and patterns regarding wildlife in North Queensland, Australia. The hands-on marine touch tank, will be an incredible opportunity for our young scientists to explore and interact with materials and patterns from marine artefacts! We will talk about how science has allowed us to understand our wildlife and environments that surround us. Students will then brainstorm ideas as to how what they've learnt will allow them to help wildlife and the environment around them in their everyday life.

Curriculum links: AC9S2H01

- Describe how people use science in their daily lives, including using patterns to make scientific predictions

Extra Curriculum links: AC9S2I01, AC9S2I02, AC9S2I04, AC9S2I06

Year 3 – Life

Students will journey through a range of habitats and ecosystems across far north Queensland to observe living and non-living things here at the Cairns Aquarium. As they travel through the different environments, they will be able to observe and describe differences between metamorphic and non-metamorphic life cycles; specifically looking at the comparison between animals such as frogs vs. animals such as humans. Students will be able to identify why animals such as frog showcase different physical characteristics at different stages of their life. As students enjoy their journey through the aquarium; they will learn which animal is a reptile, mammal, amphibian, insect or fish and will be able to distinguish them from non-living things. Students will also learn how to 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.

Curriculum links: AC9S3U01

- Compare characteristics of living and non-living things and examine the differences between the life cycles of plants and animals

Extra Curriculum links: AC9S3U02, AC9S3H01, AC9S3I01

Year 4 – Water Cycle and Food Chains

Students will follow the journey of a drop of rainwater as it tracks through various ecosystems from freshwater waterfalls through creeks and streams, into rivers past the rainforest, to the mangroves, great barrier reef and then eventually out to the open ocean. Along their journey, students will learn how water connects these ecosystems and how the water cycle impacts each environment and the wildlife in these areas. Along the way, we will investigate the connection between living organisms in these environments and the various roles animals and plants play in their food chains within their habitats. Students will learn how to draw their very own food web and will be able to identify the interactions between animals in their food web.

Curriculum links: AC9S4U01

- Explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships

Extra Curriculum links: AC9S4U02, AC9S4I01, AC9S4H01

Year 5 – Survival

Students will take the ultimate wildlife survival tour across Far North Queensland to explore the features of various plants and animals here at the Cairns Aquarium. The goal of this survival tour is to identify and explain the behavioural and physical adaptations organisms have for survival within their habitats. The journey through the Cairns Aquarium will take students into the world of Diurnal and Nocturnal wildlife and the structural and behavioural adaptations they have. We will also investigate animals and their adaptations for surviving in extreme environmental conditions in habitats such as the outback Gulf Savannah of North Queensland; camouflage and ambush predator behaviour; and how anatomical features such as an animal's mouth influences their survival within a habitat.

Curriculum links: AC9S5U01

- Examine how particular structural features and behaviours of living things enable their survival in specific habitats

Extra Curriculum links: AC9S5I01, AC9S5I02, AC9S5I05

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Year 6 – Growth and Survival of Living Things

Students will journey through various habitats and see firsthand how the growth and survival of living things are dependent on the conditions of the environment where they live, including man made impacts. We will explore how all life forms, including human life, are connected through Earth's systems (geosphere, biosphere, hydrosphere and atmosphere) on which they depend for their wellbeing and survival. Together we will also investigate how changes to physical conditions in an environment such as rainfall, salinity, temperature and sunlight; effect the wildlife in these habitats. We will also recognise that environmental conditions effect stages of life of various animals (such as droughts and flooding) which can impact the survival of their populations.

Curriculum links: AC9S6U01

- Investigate the physical conditions of a habitat and analyse how the growth and survival of living things is affected by changing physical conditions

Extra Curriculum links: AC9S6H02, AC9S6I01, AC9S6I02

Year 7 – Biological Diversity

Students will explore the diversity of life on Earth in Far North Queensland, Australia, and continue to develop their understanding of the role of classification in ordering and organising information. Students will use a dichotomous key to classify and group animals that are found within varying ecosystems. Students will be able to describe and construct food webs and predict what may happen with human interference, such as over fishing and deforestation.

Curriculum links:

AC9S7U01

- Investigate the role of classification in ordering and organising the diversity of life on Earth and use and develop classification tools including dichotomous keys

AC9S7U02

- Use models, including food webs, to represent matter and energy flow in ecosystems and predict the impact of changing abiotic and biotic factors on populations

Extra Curriculum links: AC9S7H04, AC9S7H03, AC9S7I01, AC9S7H01

Year 8 – Down to the Cell!

Students will investigate the anatomical make up of animals and plants and will investigate questions such as what digestive system do they have? How do they get oxygen from water? How do they reproduce (asexual or sexual)? Students will also look at coral bleaching at a cellular level and understand the mutual symbiotic relationship zooxanthellae have with coral polyps. Students will develop more of an understanding of the relationship between the structure of an animal and how it allows them to function. Students will also develop an understanding of how wildlife may play a part in other fields of science such as medical science and treatments for humans.

Curriculum links: AC9S8U02

- Analyse the relationship between structure and function of cells, tissues and organs in a plant and an animal organ system and explain how these systems enable survival of the individual

Extra Curriculum links: AC9S8U01, AC9S8H01, AC9S8H03, AC9S8H04, AC9S8I01, AC9S8I02, AC9S8I07

Year 9 – Nature

Students will dive into the natural world of Far North Queensland; and will look at how different organisms reproduce and how different organisms are a part of the carbon cycle. Students will explore how animals adapt to survive after being born; through investigating asexual and sexual reproduction, as well as the advantages and disadvantages to parental care and no parental care. Along the journey through our different ecosystems here at the Cairns Aquarium; we will introduce our students to the life cycles of animals such as barramundi and frogs. At our interactive touch tank, students will also learn about egg laying animals vs. live bearers and the disadvantages or advantages of each. Students will also have the opportunity to learn about how different animals and plants play a role in the carbon cycle and why that information is important in regards to conserving these habitats; particularly surrounding the impacts of climate change.

Curriculum links: AC9S9U02

- Describe the form and function of reproductive cells and organs in animals and plants, and analyse how the processes of sexual and asexual reproduction enable survival of the species

Extra Curriculum links: AC9S9H01, AC9S9H03, AC9S9H04, AC9S9I01, AC9S9I04, AC9S9I07, AC9S9U03

Year 10 – Natural Selection and Conservation

Students will investigate why biodiversity is important as a function of evolution and what long term effects may occur if biodiversity was lost. Students will also investigate how climate change can have an impact on our reef and rainforest ecosystems and how this may affect natural selection. Students will have a better understanding on what strategies and behaviours can be adopted to help reduce our impact on the environment and what they can do for sustainability.

Curriculum links: AC9S10U02

- Use the theory of evolution by natural selection to explain past and present diversity and analyse the scientific evidence supporting the theory

Extra Curriculum links: AC9S10H02, AC9S10H03, AC9S10H04, AC9S10I01, AC9S10I02, AC9S10I08

Year 11 & 12 – Biodiversity

Students will investigate why biodiversity is important as a function of evolution and what long term effects may occur if biodiversity was lost. They will learn about the diversity of species and ecosystems across Far North Queensland Australia; and how measures of biodiversity rely on classification and are used to make comparisons across spatial and temporal scales. Students will create scientific identification profiles for wildlife as they travel through the aquarium. Along their journey students will also investigate how climate change can have an impact on biodiversity, particularly in our reef and rRainforest ecosystems and how this may affect natural selection. Students will have a better understanding on what strategies and behaviours can be adopted to help reduce our impact on the environment and what they can do to create a sustainable community and life style.

Curriculum links:
Unit 1: Biodiversity and the interconnectedness of life

Extra Curriculum links: Unit 3: Heredity and continuity of life

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