# Dive In Year 4 Residential Visit

"Students DIVE IN to their first camp experience with this program designed to support the transition of staying overnight at camp as well as offering a unique interaction with our local intertidal ecosystem. Students will enjoy team building games, problem solving activities and conquer the low ropes while targeting key elements from the General Capabilities – Personal and Social Capability - strand of the Australian Curriculum such as recognising emotions, becoming confident and resilient, appreciate diverse perspectives, working collaboratively and develop reflective practices. On day two, they are presented with a call-to-action regarding the local intertidal ecosystem..."

A local fish population is mysteriously declining. As trained Balance Busters, your mission is to solve The Case of the Vanishing Fish. But this isn't just about one species — it's about uncovering how the whole food chain works, who depends on whom, and what happens when just one part of the system starts to fail.

Your investigation will take you from the muddy shallows to the tree canopy as you:

- Pump for yabbies and examine their role in freshwater food chains
- Cast a net and fishing line to survey fish species and identify energy pathways
- Dissect a fish to explore internal adaptations and feeding structures
- Observe ant colonies and decomposers at work
- Play the Web of Life game to uncover interdependence
- Construct real food webs from evidence you collect in the field
- Take on a sustainable fishing challenge to test your decision-making as ecosystem managers

You'll explore the environment from the bottom of the food chain to the top, discovering producers, consumers, and decomposers along the way. Only by understanding the full picture will you solve the mystery — and help restore balance to the web of life.

## **Curriculum Links**

Science Understanding

Biological Science - AC9S4U01 - Describe how living things depend on each other and the environment to survive, including through food chains.

Science as a Human Endeavour

Use and influence of science - AC9S4H01 - Describe how science knowledge helps people to care for environments.

Students engage in sustainable fishing simulations and habitat care discussions, applying science knowledge to explore human impacts and sustainable resource use in ecosystems.

Science Inquiry Skills

Questioning and predicting - AC9S4I01 - Pose questions to identify and explain relationships in food chains. Planning and conducting - AC9S4I03 - Make and record observations of living things and their interactions. Communicating - AC9S4I06 - Communicate scientific ideas using appropriate terminology.

#### **CROSS CURRICULUM PRIORITIES**

Aboriginal & Torres Strait Islander Histories & Cultures

A\_TSICP1 - First Nations peoples' deep connection to Country and sustainable custodianship of land and water.

Acknowledge First Nations Australians' deep connection to Country and traditional knowledge of ecosystem management and interdependence.

#### Sustainability

#### **Systems**

- SS1 Interdependence of life through Earth's systems.
- SS2 Sustainable patterns of living and resource use.

Investigate how all life forms are connected through Earth's systems an for preserving healthy environments.

re sustainable practices

#### **GENERAL CAPABILITIES**

Critical and creative thinking

Inquiring, Generating, Analysing, Reflecting

- Students explore interdependence in aquatic and terrestrial ecosystems by identifying producers, consumers, and decomposers through activities such as yabby pumping, cast netting, organism behaviour investigations, and a food web game.
- Fish dissection deepens understanding of external and internal features related to feeding and survival, reinforcing an organism's role in the food chains,

#### Personal & Social Capabilities

Self Awareness, Self -management, Social Awareness, Social Management

- Work cooperatively in field-based investigations and reflect on actions that support environmental
- Students participate in small groups where they negotiate roles, listen to others, and share ideas to solve challenges (e.g. building a food web, completing the sustainable fishing simulation).
- Games like the Web of Life require students to reflect on how their actions affect others, building awareness of their impact within a team and within an ecosystem.
- Discussions during debriefs link directly to caring for the environment and understanding diverse perspectives, including how different species (and people) rely on one another.

#### Ethical Understanding

Consider the impact of human activity on ecosystems and explore ethical responsibility in sustainable fishing and habitat care.

### CARA's

- ·Walking on uneven surfaces
- ·Science activities
- ·Animal Observation Fishing & netting Animal handling

#### **Learning Intentions:**

WHAT... are we learning?

- To develop my personal and social awareness
- Investigate and identify producers, consumers, and decomposers in aquatic and terrestrial food chains
- Describe how living things depend on each other and their environment for survival

#### WHY...

- · experience your first camp and develop life skills.
- develop scientific understanding to appreciate ecosystem balance and sustainability. They learn how human actions affect living things and how to care for natural environments responsibly.

HOW... will you know you're successful?

#### I can...

- Manage my emotions when I am working in a group.
- Persist with activities that can be difficult
- Value other people's ideas even if they are different to mine
- Be a positive team member.
- · Identify organisms at different levels of the food chain in freshwater and terrestrial habitats
- Construct simple food chains and explain the connections between living things
- Recognise the role of sustainable practices in protecting ecosystems

#### **BIEEC PEDAGOGY**

Our student-centred learning approach focuses on hands-on, interactive activities that engage students and encourage exploration. By allowing students to take ownership of their learning and set personal goals, they develop independence and critical thinking skills. Teachers act as mentors, supporting students by asking questions throughout their learning journey to assist with building a lifelong love of learning.

### **SAMPLE ITINERARY**

\*\*\*Please note this program must be run on a 12pm low tide day\*\*\*

Please Note: This is a SAMPLE itinerary and your Program Manager will forward your individual program shortly.

	Time	Activity		Time	Activity
" Empowering Extraordinary Minds"	Welcome	Students arrive at the Boyne Island Environmental Education Centre and are met by BIEEC teachers. Introduction to BIEEC and the <i>Balance Busters</i> program. Followed by goal setting, their call to action for today, icebreakers and a fruit break.		Morning Session	Activity 1  Balance Busters split into two groups and participate in food web games for understanding – rotation of 3 games
	Morning Session	Activity 1 - * Welcome to Camp! Students are welcomed by BIEEC staff and shown to their cabins to drop off bags.  We begin with an Acknowledgement of Country to show respect for the Traditional Custodians of this land.  Then we get ready for the day with:  Positive energisers to build excitement  A short camp induction with key info and safety tips  A fun name game to help everyone get to know each other		Morning Tea  Middle Session	toilet break / sunscreen / refill water / insect repellent  Activity 2 - Put on your gloves and step into the role of a real balance buster as we dig deeper (literally!) into the food web:  •  Sissect a fish to explore its internal features and discover what it eats and how it survives
	Morning Tea  Middle Session	toilet break / sunscreen / refill water / insect repellent  Activity 2 - Get Set for Adventure!  Students take part in a quick iPad induction to learn how to use digital tools during their			Investigate microplastics found in aquatic animals — what are they, and how do they affect the food chain?     Construct a real food web based on your evidence, showing who eats who and how energy flows through the system
		program. At the same time, teachers meet with BIEEC staff for a short briefing.  Then it's time to EMPOWER the students with a fun call to action!  Teams are formed and head to their shelter base (Gi-Gum or Wandara)  We introduce student-led learning with the motto: "Be a BIEEC Start"  The journey officially begins with a hands-on shelter building challenge		Lunch	toilet break / sunscreen / refill water / insect repellent
				Afternoon Session	Activity 3 -Grab your wet boots and head into the wild! This is your chance to get wet, muddy, and hands-on as you search for clues in the field:  • Pump for yabbies and learn their role as prey and predators in the freshwater ecosystem
	Afternoon  Afternoon	Activity 3 - Team Challenge Time!  At Gi:Gum and Wandara, teams take on their final adventure:  • A fun Communication and Trust Challenge to build teamwork and connection  • Then it's time to swap challenges so everyone gets a turn at both Students practise working together, solving problems, and encouraging each other — a great way to finish the day strong!  Debrief and Reflection  Reflection: Students communicate their feelings and share ideas about their experiences			Sift through benthic samples to discover tiny organisms living in the mud and how they fit into the food chain  Sustainable fishing, cast nets and drag nets to survey fish and macroinvertebrates in the shallows  Suse a plankton trawl to collect microscopic producers and early links in the food chain  You'll be working from the bottom up — starting with producers like algae and ending we top predators. Every sample helps complete the puzzles.  Debrief and Reflection
	Теа				Reflection: Students communicate their findings and share ideas about their experienc and how they connected with country and how to actively care for country
				Farewell	Students depart BIEEC

#### Students and adults will need:

- Appropriate clothing for a camp
- Closed in shoes
- spare pair of wet shoes (muddy activities)
- spare change of clothes
- Sun-safe clothing and hat
- Sunscreen and insect repellent already applied
- Water bottle
- Catering: External caterers supply, cook and serve food)

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