

GREEN ZONE

UNIFY Series: Year 4-6 STEM



impact.edu.au/register

BIG IDEA

Green Zone transforms your students into citizen scientists. These citizen scientists compare and contrast green zones to designated fishing zones in Moreton Bay. They develop a rich understanding of the purpose and process of scientific inquiry and mathematical investigation. Students identify questions; make predictions; conduct investigations; collect, analyse and use data; critically evaluate experimental design; and draw evidence-based conclusions. The IMPACT Centre has partnered with Moreton Bay Environmental Education Centre (MBEEC) to produce *Green Zone*.

NB: This program includes an exciting research voyage on-board [Inspiration](#) with MBEEC, leaving from Manly Boat Harbour east of Brisbane. The voyage is highly recommended. Schools who cannot attend should contact the IMPACT Centre to discuss potential program participation.

Green Zone helps schools to build staff and student capability simultaneously. Key teachers and leaders can access the [IMPACT STEM Team](#). Your web conference supervisor can co-teach with our online teacher.

SELECTION CRITERIA

- ✓ Selection criteria for the UNIFY Series is largely subjective.
- ✓ Many schools use *Green Zone* and other UNIFY Series programs as an enrichment opportunity for mid-to-high achieving students.
- ✓ Teacher judgement and student interest in science and the environment should assist selection.

AUSTRALIAN CURRICULUM

See page 2 for Australian Curriculum links and other important details.

THE COURSE:

LESSON OVERVIEW (*dependent on excursion booking dates)		
NO.	TITLE	CONTENT
1	Welcome to <i>Green Zone</i>	<ul style="list-style-type: none">Introduction to web conferencing tools and the course
2	Introduction to eLearn	<ul style="list-style-type: none">Working in the eLearn environmentIntroduction to STEM – scientific inquiry skills
3	Pre-Assessment	<ul style="list-style-type: none">eLearn Quiz pre-assessmentInterpreting data skills
4	Introduction to Moreton Bay	<ul style="list-style-type: none">Moreton Bay – past, present, future
5	Evidence	<ul style="list-style-type: none">Types of dataPresenting, organising and interpreting data
6	Fair Testing	<ul style="list-style-type: none">Planning investigations – fair testing and variables
7	Research Voyage Briefing	<ul style="list-style-type: none">Analyse and interpret data and information from previous marine field tripsResearch Field Trip briefing – data skills
8	Research Voyage *	<ul style="list-style-type: none">Research Field Trip – Moreton Bay aboard <i>Inspiration</i> (no iConnect web conference)
9	Data Analysis	<ul style="list-style-type: none">Determine patterns, trends and anomaliesDraw inferences
10	Evaluating & Concluding	<ul style="list-style-type: none">Evaluate scientific investigation process and suggest improvementsDraw evidence-based conclusions
11	Post Assessment	<ul style="list-style-type: none">eLearn Quiz post-assessment
12	Where to from here?	<ul style="list-style-type: none">Review, consolidate and extend on project learning – celebrate success



Years 4-6
UNIFY Series
Round 3 only

'All students have loved the Green Zone project and feel that their computer and science inquiry skills have grown immeasurably. Several students are now considering a career in science or marine biology and this project has inspired them to reach for the stars.'

Supervisor

'Before Green Zone I hardly knew anything about the bay but now I am aware of how it is polluted and needs help and I didn't know there was so many marine animals. Green Zone has really helped me want to inquire into science a lot more.'

Student

[How it Works](#)

[Participation Costs](#)

[Primary Main Page](#)

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Contact Details: Phone (07) 3727 2888 or email admin@impact.eq.edu.au

Australian Curriculum

Science

Science Inquiry Skills

Planning and conducting:

- Decide which variable should be changed and measured in fair tests and accurately observe, measure and record data, using digital technologies as appropriate ([AC SIS104](#))

Processing and analysing data and information:

- Compare data with predictions and use as evidence in developing explanations ([AC SIS218](#))

Evaluating:

- Reflect on and suggest improvements to scientific investigations ([AC SIS108](#))

Science As A Human Endeavour

Nature and development of science:

- Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions ([AC SHE098](#))

General Capabilities / Cross-Curriculum Priorities

Literacy

Comprehending texts through listening, reading and viewing

- Comprehend texts
- Navigate, read and view learning area texts
- Interpret and analyse learning area texts

Composing texts through speaking, writing and creating

- Compose spoken, written, visual and multimodal learning area texts
- Compose texts

Word Knowledge

- Understand learning area vocabulary

ICT Capability

Managing and operating ICT

- Select and use hardware and software

Creating with ICT

- Generate solutions to challenges and learning area tasks
- Use ICT effectively to record ideas, represent thinking and plan solutions

Communicating with ICT

- Select and use appropriate ICT tools safely to share and exchange information and to safely collaborate with other.

Numeracy

Using Measurement

- Estimate and measure with metric units

Interpreting statistical information

- Interpret data displays

Critical and Creative Thinking

Inquiring – identifying, exploring and organising information and ideas

- Identify and clarify information and ideas
- Organise and process information

Generating ideas, possibilities and actions

- Seek solutions and put ideas into action
- Consider alternatives

Analysing, synthesising and evaluating reasoning and procedures

- Apply logic and reasoning
- Evaluate procedures and outcomes

Sustainability – Cross-Curriculum Priority

The sustainability of ecological, social and economic systems is achieved through informed individual and community action that values local and global equity and fairness across generations into the future.

NAPLAN Online – ICT Skills Guide

NAPLAN Online requires students to confidently use a computer or device in at least seven ways. As shown below, IMPACT Centre projects develop all seven of these skills and are an excellent way to prepare your students for online testing.

1. Locate and select an answer from a list – YES
2. Type an answer – YES
3. Read the screen and navigate web pages – YES
4. Manipulate objects on screen – YES

5. Read and comprehend digital texts – YES
6. Plan and compose text using word processing – YES
7. Listen using a headset – YES

NB: See [DET's NAPLAN Online ICT Skills Guide](#) for details.

Assessment

Pre and Post Assessment:

1. Pre and Post Tests
2. Working Scientifically Template – individual student work during lesson
3. Green Zone Log (Portfolio)

Reporting

- Pre and post assessment data are provided to schools, along with student attendance data.
- Qualitative report card comments are provided to schools. We recommend their inclusion as an OLA on semester report cards.

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