I.SEA. Schools Program

"Starting Conversations about Conservation"

INFORMATION PACK

Introduction

I.SEA. Conservation is an organisation dedicated to marine conservation through collaboration, education, research, awareness and actions.

Everyone on Earth is fundamentally reliant on the ocean, no matter how far they live from the coast. The ocean provides us with food, pharmaceuticals, jobs, cosmetics, and, of course, amazing natural beauty. It regulates our climate, produces more oxygen than all of the world's rainforests and even slows climate change by sequestering and storing carbon dioxide.

But it is under threat. Marine biodiversity is in decline, the ocean is becoming clogged with plastic, coral reefs are bleaching and dying, and the water is becoming more acidic, threatening the world's marine systems as we know them.

We believe that one important aspect of reversing these changes and protecting the ocean's delicate systems for future generations is education. Hence the creation of I.SEA. Schools, a series of workshops and presentations aimed at inspiring young minds to build a better future.

The Team

I.SEA. founders, Sam Coe and Jess Strickland are committed to connecting the people of the land to the sea, through marine education. Both have delivered countless educational talks to audiences of all backgrounds and ages, focusing on coral reefs, marine biology, environmental issues and solutions. They are utterly passionate about the natural and, in particular, the underwater world, each having spent hundreds of hours underwater and they are excited to bring their knowledge and experience of working in the marine environment to the classroom.

Sam Coe

Sam is a marine biologist who studied in Scotland and who has experience working on the Great Barrier Reef and Ningaloo Reef in Australia, on turtle research in Costa Rica, and through Indonesia. The son of a vet and a zoologist, Sam has always had an interest in the natural world around him. Sam grew up in Scotland and the Falkland Islands, and is now dedicated to educating kids from rural communities about the ocean and wildlife conservation. Sam also likes to engage people by sharing his love of underwater photography.

Jess Strickland

Jess has a background in marine biology, climate change adaptation and environmental planning. She grew up around Australia and in Papua New Guinea, where she developed her love for the ocean. She has experience doing shark research out of South East Queensland, working on the Great Barrier Reef and Ningaloo Reek in Australia, as well as in Indonesia. Jess has also spent four years teaching environmental subjects at a university level and loves inspiring people through education.

Presentations

I.SEA. Conservation has developed several presentations, covering a variety of conservation topics and aimed at different education levels. If none of these presentations are suitable, we are happy to tailor a presentation to your school's needs or curriculum. Please don't hesitate to get in touch to discuss options for your school or event.

Peace to the Reef

LEVEL: Upper Primary to Lower Secondary

LENGTH: 1.5-2 Hours

Creating a better future starts with educating our future thinkers and leaders.

This session is designed to introduce students to coral reefs, an ecosystem that many people may not have first-hand experience of. The session involves an interactive presentation, focused on stimulating thought and discussion about reef (and ocean) conservation. Climate change, its effect on reef ecosystems, and the reduction of greenhouse gasses are also key areas of focus.

Topics covered include:

- What a marine biologist does
- Introduction to coral reefs, where they're found, and their biodiversity
- Coral biology
- Importance of coral reefs and their benefits
- Coral reef ecosystems (Ecosystem Activity Part 1)
- Brief overview of threats to coral reefs (e.g. fishing, pollution, mining, climate change)
- Effects of climate change on coral reefs
- Coral Bleaching
- Consequences for Coral Reef Ecosystems (Ecosystem Activity Part 2)
- Solutions: How to reduce emissions (Brainstorm Activity)
- Quiz and Discussion

An Ocean of Plastic

LEVEL: Lower Secondary

LENGTH: 1 Hour

This session is designed to make students aware of one of the biggest challenges our society is up to its neck in - plastic. In particular, single-use plastics. We are a planet of convenience-loving consumers and our health and the world's environments are paying for it. The ocean is no exception. Each year 8 million tonnes of plastic enter the ocean. In fact, a recent study by the Ellen MacArthur Foundation estimates that there will be more plastic in the ocean than fish by 2050. Plastic, and the toxins it leaches, not only kill marine animals, they also make their way into our seafood and affect human health. There are some simple things that we can do as consumers to change our habits and tackle this problem.

We allow 8 million tonnes of plastic to enter our ocean each year. The effects of that are catching up with us.

Topics covered include:

- What a marine biologist does
- Introduction to the ocean
- Services that the ocean provides us with
- Ocean biodiversity
- Plastics
- Plastic in the oceans
- Plastic and marine animals
- Plastic, seafood and human health
- Our plastic habits
- Alternatives
- A call for change (brainstorming activity)
- Quiz and discussion

Coral Connections

LEVEL: Lower Secondary

LENGTH: 1 Hour

Coral Connections is a presentation that looks in detail at corals, coral reefs, and the ecosystems that they host. It delves into the anatomy and biology of corals, looks at how coral reefs are formed, discusses the roles of various players in coral reef ecosystems and teaches how coral reefs are linked to and support not only the whole ocean but the whole planet. Unlike other I.SEA. presentations, there is not a strong emphasis on threats or conservation issues. This would ideally be delivered as the first session in a two part series on coral reefs. A breakdown of the topics covered follows.

- What a marine biologist does
- Introduction to coral reefs and where they're found
- Coral biology and physiology
- The coral - algae relationship
- Coral reef ecosystems
- Roles on the reef
- Quiz and Discussion

A glimpse into a beautiful coral reef ecosystem. Despite covering less that 0.1% of the seabed, coral reefs host a quarter of all marine species. This is just one reason why I.SEA. puts such a focus on coral reefs in their I.SEA. Schools program.

“Ocean’s Deadliest - Debunked”

LEVEL: Lower Secondary to Senior School

LENGTH: 1 Hour

Sharks, sea snakes, killer jellyfish. The ocean certainly has a reputation for playing host to some pretty deadly animals. But do these animals really deserve their nasty reputation? We work our way through some of the big names in ocean baddies, sorting facts from fiction. A great interactive presentation that is ensure to engage students of all ages.

Brendan (Shark Guardian cofounder) getting school kids excited about sharks during a Shark Guardian Presentation. Source: Shark Guardian, 2016.

“Shark Guardian Presentation”

LEVEL: All ages!

LENGTH: 20 Minutes (recommended as an ‘add-on’ to another presentation)

I.SEA. has partnered up with Shark Guardian, a shark conservation charity, and are authorised presenters of the Shark Guardian Presentation, which is currently delivered to over 20,000 people each year in several countries around the world. The Shark Guardian Presentation is an interesting and educational event for all age groups. Not only does the presentation educate the audience about sharks, but also about their role in the food chain of the ocean, their importance and why they are needed for our survival. The presentation provides information and facts regarding the modern day plight of shark populations throughout the world and is aimed towards shark conservation and action through education and awareness. To find out more about Shark Guardian, visit their website at www.sharkguardian.org.

Arrange an I.SEA. Session

Location

I.SEA. is currently based in Western Australia and sessions are available within this region. If your school or event is further afield and you would like to arrange for I.SEA. to visit or present via a live feed, please contact us and we may be able to come to an arrangement depending on our availability.

Sharks have developed a bad reputation. But are they really the mindless, killing machines we perceive them to be? Find out what drives a shark to bite (or not to bite) in our Ocean's Deadliest - Debunked Presentation.

Bookings

Due to our busy schedule with multiple projects on the go, we may require up to three weeks notice to arrange a session. Please don't hesitate to get in touch as soon as possible if you are thinking of arranging a visit from I.SEA. so we can discuss options and find a time that works for both parties.

Photography Consent

Where possible we like to take a few photographs of events or projects, to add to our website and/or social media pages. If you would like I.SEA. to visit your school, and it is not against school policies, we may request to do so. If you require a notice of permission for parents, we would be happy to provide one. Alternatively, we respect that some schools do not allow photography of their students.

Required Equipment

Ideally, for most of our sessions, we require the equipment to run a PowerPoint presentation, preferably with sound. For some activities we also use a large whiteboard. If such equipment is not available, or if you want to host a session outdoors, please contact us with details so we can arrange an alternative that suits your venue and the equipment you have available.

Preparation

Once you've arranged an I.SEA. session, we recommend you ensure your students have a basic knowledge of the key concepts to be covered. Each presentation has a different focus and most require some understanding of basic environmental concepts to already be in place (e.g. climate change). If in doubt, don't hesitate to get in touch or to request resources. We also recommend that you direct students to our website prior to a session, to ensure they get the most out of our visit.

Further Resources

We invite you to visit our website: www.iseaconservation.org.

On it you will find more information about I.SEA.'s projects and initiatives. You will also find an interactive "Kids' Corner" section with games and educational resources and a "Latest News" section where we post informative articles and updates. There are activities and resources for all ages!

Contact

The best way to contact I.SEA. Conservation is via email: info@iseaconservation.org.

However, if you want to speak to one of the team feel free to give us a call: (+61) 0474 895 487.

Jess teaching snorkelers about corals on the Great Barrier Reef, Australia.