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Educational Supplement

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# About This Guide

This companion guide to the film ***A Plastic Ocean*** helps educators teach their students to use the information presented in the documentary to learn about and create potential solutions to our plastic pollution problem. This guide is organized to follow along with the topics in the film ***A Plastic Ocean***.

## How To Use This Guide

This guide is designed to help educators use the film ***A Plastic Ocean*** with their students. This guide offers a variety of activities and resources to help students explore the ideas and problems presented in the film and then consider potential solutions to our plastic problem. This guide was designed to be used as a whole, or you can select individual activities as you best see fit.

### This Guide Includes:

- 100-minute or 22-min version of the film ***A Plastic Ocean***
- Key Facts Resource Sheet
- 1 Lesson Plan, containing:
  - 10 discussion questions
  - 5 In-classroom activities
- 8 Visual Key Facts Resource Sheets
- Further Resources
- ***A Plastic Ocean***: Facilitator's Powerpoint: to guide you in leading a 20-minute discussion post-screening for your class

### This Guide Is Designed For:

- Students, post-screening ***A Plastic Ocean***
- Classes, events, or trainings in areas such as:
  - Environmental Science
  - Marine Biology
  - Government and Politics
  - Business and Entrepreneurship
  - Science and Technology
  - Service Learning



# About the Film

## Scientists Solving a Jigsaw Puzzle ... Gyre by Gyre

If it was happening in one gyre, they suspected it was happening in all of them. But the filmmakers needed experts to prove it.

Scientists were brought in at each stage to analyze the findings from one part of the story to add their data to the overall report on the five gyres.

In the center of the Pacific Ocean gyre our researchers found more plastic than plankton. ***A Plastic Ocean*** documents the newest science, proving how plastics, once they enter the oceans, break up into small particulates that enter the food chain where they attract toxins like a magnet. These toxins are stored in seafood's fatty tissues, and are eventually consumed by us.

- Producer Jo Ruxton joined an expedition to the so-called Great Pacific Garbage Patch in the North Pacific Gyre, 1500 miles off the coast of San Francisco, to ascertain its impact. When the expedition discovered free-floating microplastics instead of an anticipated solid mass that could be contained, Jo knew she had to begin the film that would become ***A Plastic Ocean***.
- Jo had worked for the WWF International in Hong Kong and partnered with director and journalist Craig Leeson. Their first collaboration was on a documentary about endangered Pink Dolphins in Hong Kong.
- Jo and Craig brought on Dr. Lindsay Porter, an expert in cetaceans (whales and dolphins).
- Together they contacted the world's experts to see what was known about plastic pollution in the gyres.
- The team expanded to include Dr. Bonnie Monteleone who had already found microplastics in other gyres she had investigated. She joined the expedition to the South Pacific gyre.
- With new information emerging about the extent of the issue in each of the Ocean gyres, free diving champion Tanya Streeter joined the team. Together they set off on what would be a four-year global odyssey to explore the issue of plastics in our oceans and its effect on marine ecosystems and human health, including endocrine disruption.

# Director's Q&A: *Craig Leeson*

## **Why did you want to get involved?**

The creatures that inhabited the sea became a source of intrigue and study, the waves my playground. From an early age I noticed the severe effects industrial pollution was having on the Coastal waters where I grew up and also the effect it was having on me personally.



## **When did you start recognizing plastic as a global environmental issue?**

In 2010, I became aware of one increasing source of pollution, which had until then escaped my notice. It was something I'd been told and taught was disposable. Plastic. From that moment, I noticed plastic everywhere and began to study intensely its effects on marine life and humans.

## **Why do you think this is such an important issue for the world to address?**

Plastic is a man-made substance. It isn't supposed to be in the environment and the environment has no way of dealing with it, so it is building up and poisoning our earth like a disease. We live in a world where we are using up those resources faster than is sustainable. Very few of us are taught that our oceans keep us alive. As Dr Sylvia Earle says "without the blue there is no green." Our weather systems, oxygen, clean water, food sources, medicines, come from the oceans or are sustained by them.



**What do you hope to accomplish with the film, A Plastic Ocean?**

If you do not know, then you cannot care. With knowing comes caring. By raising this issue we hope to begin a discourse on the problem that will promote and invoke change. We need to recognize solutions that work and come up with others that solve the problem of plastic that is already in the environment. Only through the sharing of information on this issue and will the public change policy on how we treat plastic.

**How have you changed since taking on this project?**

I've become more self aware of the impact I'm having on the world around me. Directly, I've become a megaphone for campaigning against single-use plastic: I find myself informing supermarket check-out people, takeaway servers, café owners, bankers, politicians and anyone who will listen, about the detrimental impact of single use plastic. I have developed a keen interest in green and sustainable financial funds and businesses where profit is based on sustainability and environmental responsibility.

