

Helping to Shape the Future of Rivers and Oceans

TEACHING RESOURCE PACK: PROTECTING WILDLIFE IN JACKSONVILLE & ENVIRONMENTAL RESPONSIBILITY



INTRODUCTION

P1 Marine Foundation, St Johns Riverkeeper, Marine Science Research Institute at Jacksonville University and Powerboat P1 are working together to help raise awareness of St Johns River and the threats to its wildlife.

Our education pack provides schools with the opportunity to learn about wildlife you can find in St John River and in the marine environment, as well as the threats and how easily we can all be responsible citizens.

This educational tool focuses on the importance of rivers and oceans, how marine debris is one of the greatest threats and ways in which we can help.

The purpose is for students to have an understanding of the impacts of waste as well as other threats and how it affects the health of rivers and oceans. They will be able to identify solutions and how their actions can make a big difference to the surrounding environment.

THE PROBLEM

Clean water is the lifeblood of the St. Johns River and its tributaries. Our wetlands, forests, riparian zones adjacent to waterways, and aquatic plants provide the habitat and food sources that sustain healthy plant, fish, and wildlife populations.

Unfortunately, the ecological health and integrity of the St. Johns River system is threatened due to years of neglect and the cumulative impacts of a growing population.

PARTNERS

- St Johns Riverkeeper's mission is to work on behalf of the community for clean and healthy waters in the St. Johns River, its tributaries and its wetlands, through citizen-based advocacy.
- Marine Science Research Institute (MSRI) lies on the banks of the St. Johns River with its goal to provide a premier biological and environmental research and education facility.
- Powerboat P1 is the rights-holder for powerboat race series P1 SuperStock and has expanded into jet ski racing with its P1 AquaX Championship. In the USA, a wholly-owned subsidiary, P1 USA, manages all aspects of racing throughout North America.
- P1 Marine Foundation's mission is to deliver inspiring programmes that enhance understanding of the value of marine life together with increased personal responsibility, particularly amongst young people.

LESSON PLAN & ACTIVITIES

Life in rivers and oceans

Aim: To understand why the rivers and oceans are important and how are we connected to it

Subject links:

Science: To learn about living things in the environment and how to care for the environment

Resources:

Resource 1: Jacksonville Map

Teaching Activities:

1. How are we connected to the ocean?

Ask students to share with the class their experience with the ocean; if they have ever been to the coast or on a boat and what it means to them. Show students the Jacksonville map and ask students to find their location and to locate the nearest sea or ocean. Ask students how we are connected to that ocean; in what natural way? (Rivers, streams, estuaries, coast, beaches, ports, harbours, marinas)

2. Investigating marine ecosystems

Divide students into small groups and assign each group one ecosystem from the list: Estuary, Spring, Coral Reef, Deep Sea, Mangrove, Rocky Shore, Sandy Shore

Ask students about the following information on their ecosystems:

- Location of one or more real-world examples of their ecosystems
- Different animals found there
- Unique characteristics that set the ecosystem apart from other marine ecosystems

Why do they need our help?

Aim: To understand what the threats are to wildlife and potential impacts of marine debris.

Subject links:

Geography: Interactions between people and their environments, including causes and consequences of these interactions, and how to plan for and manage their future impact
Science: Human activity and natural processes can lead to changes in the environment

Resources:

Resource 1: Marine Litter Infographic

(www.oneworldocean.com/images/blog/OWOO_PlasticsInfographic_2012.jpg)

Resource 2: Message in the waves: (www.youtube.com/watch?v=g6gaAjAEkog)

Teaching Activities:

1. Introducing Marine Debris

Ask students to brainstorm different types of litter and make a list on the board, then ask: What happens to litter? Where does it go? How could litter end up in the ocean?

Show students the Marine Litter Infographic and elicit from students that rubbish that does not make it to a landfill can eventually end up in the ocean. Emphasize that wind, streams, and ocean currents carry litter throughout the globe, including to the ocean and coasts where it becomes marine debris.

2. Impacts of debris on marine and coastal animals

Watch the following the video 'Message in the waves' then ask the following questions:

- What is the main ocean threat discussed in this video?
- Where in the world are they happening?
- How does the threat affect marine animals?
- What actions are people taking to address those threats?

3. Oil spills

Students will work together to research oil spills, predict the effects of an oil spill on a marine environment, and establish a list of solutions to avoid unnecessary oil pollution such as spill kits.

Protecting our rivers and oceans

Aim: To learn how about environmental responsibility

Subject links:

Citizenship: To take part in discussions and debates about the issue

Science: To learn about living things in the environment and how to care for the environment

Resources:

Resource 1: P1 Planet animation: www.youtube.com/watch?v=xK9Tluq90WY

Resource 2: P1 Planet quiz

Teaching Activities:

1. Finding Solutions

Ask students to suggest ideas that would help reduce marine debris in the marine environment.

2. Environmental Stewardship

Watch the P1 Planet animation and ask students to complete the quiz.

3. Art Competition

Ask students to create an environmentally friendly race boat. Winner will be announced at the Environmental Alley during the Powerboat P1 race event in Jacksonville on the 7/8 June.