

Learning objectives

Common Seas has worked with partners to create a set of universal Ocean Plastics Learning Objectives, utilising the frameworks developed by UNESCO and those working for Ocean Literacy. These learning objectives are listed below and are subscribed to by Common Seas Ocean Plastics Academy partners. We hope that these overarching learning objectives are useful to other individuals and organisations planning their own education programming to help a plastic waste free future.

Oceans for beginners 14-16 Ocean Plastics learning objective	Lessons		
	1	2	3
Cognitive learning objectives <ul style="list-style-type: none"> The learner understands the fundamental properties of plastics, including the use of additives. The learner understands the scope and geographical scale of plastic use and plastic pollution historically as well as current predictions. The learner understands the pathways through which plastics enter the ocean and marine life. The learner understands the social, environmental and economic cost of plastics across its entire life cycle. The learner can identify and evaluate ways to improve the sustainability of plastics at different stages of the product life cycle¹. 			✓
Socio-emotional learning objectives <ul style="list-style-type: none"> The learner can reflect on their own use of plastics, and how this use might affect the marine environment. The learner actively seeks alternative designs, behaviours and practices that reduce their contribution to plastic pollution. The learner can communicate the societal and environmental impacts of plastic use, referring to the scientific evidence base. The learner is able to influence the behaviours and practices of others in their community in terms of plastic use and management. The learner can collaborate at a range of scales to campaign for the reduction of plastic pollution. 			✓
Behavioural learning objectives <ul style="list-style-type: none"> The learner is able to access and improve waste management systems in their local area. The learner can plan and implement campaigns that lead to a reduction in plastic pollution at a range of scales. The learner is able to evaluate media narratives about plastic pollution and present a balanced judgement to their peers. The learner is able to make informed decisions as a consumer to reduce plastic pollution. The learner is able to research different approaches to design, including circularity and biomimicry. 			

¹ Including improved design, alternative materials, waste management and individual behaviour.

Applicable standards

National Curriculum for England

KS4 Science

Element of the curriculum

Lessons

1 2 3

- How do communities of species and ecosystems interact with each other? ✓
- Positive and negative human interactions with ecosystems. ✓
- Evaluating social, economic and environmental implications. ✓ ✓
- Identify scientific evidence that has been used to support or refute ideas or arguments. ✓

KS4 Geography

Element of the curriculum

Lessons

1 2 3

- Illustrate the concept of interrelationships within a natural system. ✓
- Recognise and describe distributions and patterns of both human and physical features. ✓
- Understand the interdependence of environments and people. ✓ ✓
- Understand the impact of marine environment destruction. ✓
- Interpret and analyse information from a variety of sources. ✓

SCHEME OF WORK

Lesson 1: Our wonderful ocean 14-16

Overview

This lesson will build on prior knowledge of marine environments. Students use globes and atlases to map the locations and key physical features of the oceans. Students will learn the names and notable characteristics of iconic species from different ocean habitats. They then use the information sheets to develop their knowledge and understanding of how humans use the ocean, presenting their findings in a fact-sheet.

Learning outcomes

- Review prior knowledge of the ocean
- Describe the physical features of the ocean
- Compare and contrast the features of marine species
- Explain how humans use the ocean
- Reflect on learning

Resources



Slideshow 1:
Our wonderful ocean



Student Sheet 1a:
World map

Student Sheet 1b:
Marine ecosystems

Student Sheet 1c:
Competing creatures

Student Sheet 1d:
Coral life



Gallery:
Living reef

Gallery:
Deep-sea creatures

Gallery:
The Great Barrier Reef



Diagram:
Deep ocean poster

Lesson 2: Our ocean and us 14-16

Overview

In this lesson students learn about the concept of ecosystem goods and services, following this they will answer GCSE style exam questions which they will peer assess, reflecting on how dependent we are on the ocean.

Learning outcomes

- List and describe the goods provided by the ocean
- List and describe the services provided by the ocean
- Consolidate understanding of ecosystem goods and services
- Evaluate the importance of the goods and services provided by the ocean
- Reflect and build on learning

Resources



Slideshow 2:
Our ocean and us



Student Sheet 2a:
Goods and services factsheet

Student Sheet 2b:
Goods and services worksheet

Lesson 3: Our ocean in crisis 14-16

Overview

In this lesson students will consider some of the myths in the media relating to ocean plastics by completing a true or false activity. They then analyse different news reports considering the motivations different organisations and media outlets may have. Students conduct research about an 'Ocean hero' and create a detailed career plan to emulate the achievements of their chosen hero.

Learning outcomes

- Review prior knowledge of ocean plastic pollution
- Identify facts about ocean plastic pollution
- Analyse a variety of information about ocean plastic pollution
- Evaluate the work of a 'Ocean hero'
- Share knowledge and understanding through making a pledge

Resources



Slideshow 3:
Our ocean in crisis



Student Sheet 3a:
News articles

Student Sheet 3b:
Ocean hero profiles

Student Sheet 3c:
Career profile