

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 11-14 Ocean Plastics learning objective	Lessons		
	1	2	3
Cognitive learning objectives			
• 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 cycle ¹ .			
Socio-emotional learning objectives			
• 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			
• 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

KS3 Science			
Element of the curriculum	Lessons		
	1	2	3
Animals including humans			
• How organisms affect, and are affected by, their environment.	✓		
• Differences between species.	✓	✓	
• Understand the interdependence of organisms in an ecosystem.		✓	
Working scientifically			
• Identify scientific evidence that has been used to support or refute ideas or arguments.			✓
KS3 Geography			
Element of the curriculum	Lessons		
	1	2	3
Geographical skills			
• Understand geographical similarities, differences and links between places.	✓		
• Understand how human and physical processes interact to influence and change environments and how human activity relies on effective functioning of natural systems.	✓		
• Build on their knowledge of globes, maps and atlases.	✓		
• Understand economic activity in the primary sector.		✓	
• Understand key processes relating to hydrology and coasts.		✓	
• Understand how human and physical processes interact to change environments.		✓	
• Develop geographical skills in analysing and interpreting different data sources.			✓
• Understand how human and physical processes interact.			✓

SCHEME OF WORK

Lesson 1: Our wonderful ocean 11-14

Overview

This lesson introduces the marine habitat and encourages a discussion around what students already know about the ocean. Students will use globes and maps to identify the location of the different ocean basins. They will then learn the names and key features of iconic species from the ocean. Students then use information sheets to discover how humans use the ocean, presenting their findings in a fact-sheet.

Learning outcomes

- Review prior knowledge of ocean
- Name and locate and describe the world's oceans
- Describe the features of iconic 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

 **Gallery:**
Living reef

Gallery:
Deep-sea creatures

Gallery:
The Great Barrier Reef

 **Diagram:**
Deep ocean poster

Lesson 2: Our ocean and us 11-14

Overview

This lesson introduces students to the concept of ecosystem goods and services and allows them to discuss and share their knowledge. Students write a letter to the Secretary of State for the Environment outlining their thoughts on the oceans significance and their concerns about it's health. Students also describe how damaging the marine ecosystem could be detrimental for all of us.

Learning outcomes

- Discuss the ecological goods provided by the ocean
- Describe the ecological services provided by the ocean
- Evaluate the importance of the ecological goods and services provided by the oceans
- Consolidate learning about ocean goods and services
- Reflect 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 11-14

Overview

This lesson challenges students to think about the potential myths we have been led to believe through selective media representation, by completing a true, false or uncertain activity. Students are then asked to think about the different motivations media outlets or organisations might have. Students conduct research about an 'Ocean hero' and create a poster encouraging others to pursue a career in that field. The lesson is concluded by discussing the changes we can implement in our lives which will make a difference to the levels of marine plastic pollution.

Learning outcomes

- Understand facts about plastics pollution
- Review prior knowledge of ocean plastic pollution
- Recall facts about plastic pollution
- Explain why it is important to know the validity of a source
- Create an informative and interesting poster about a 'Ocean hero'
- Share knowledge and understanding of marine plastic pollution by making a pledge

Resources

 **Slideshow 3:**
Our ocean in crisis

 **Student Sheet 3a:**
News articles

Student Sheet 3b:
Ocean hero profiles