

Our wonderful ocean



Age 14-16



60 minutes

Curriculum links

- Understand the distribution of marine ecosystems
- Identify the interrelationships within a marine ecosystem

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



Subject Update:
Learn more: How many oceans are there?

Lesson 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.

Lesson steps

Learning outcomes

1. Ocean habitat introduction (5 mins)

Students are introduced to the marine environment and share their prior knowledge.

- Review prior knowledge of the ocean

2. The blue planet (30 mins)

Students study atlases and globes to map the world's oceans, their physical features and the important marine ecosystems.

- Describe the physical features of the ocean

3. Competing creatures (10 mins)

Using information about a variety of marine species and habitats, students compare their features.

- Compare and contrast the features of marine species

4. Humans and the oceans (10 mins)

Students list the different ways humans use the ocean and start to consider the consequences of human impact.

- Explain how humans use the ocean

5. Reflection (5 mins)

In pairs students recall three new things they learnt today. Students reflect on what else they would like to know and share questions with a partner.

- Reflect on learning

Extension or home learning

Students create a fact-file about UK marine environments, including information about the species found in UK waters and how humans use those waters.

Step Guidance

Resources

1
5
mins



Step 1 introduces students to the marine environment and asks them to share their prior knowledge about the ocean and the creatures that reside there.

- Use slides 2-4 to introduce the lesson and the learning outcomes.
- Ask students to share what they know about the ocean with their partner. Take feedback.
- Explain that in pairs, students will have 30 seconds to name as many marine species as they can think of, keeping a tally on mini-whiteboards or in their books. Encourage them to avoid repetition.
- Students share how many they listed.

Slideshow 1:
Slides 1-4

2
30
mins



Step 2 involves students locating the world's oceans and describing marine ecosystems.

- Choose students to answer the questions on the board. It is imperative that students understand how important water is to humans.
- Hand out Student Sheet 1a and atlases. Students identify and label the oceans.
- Extension – Students identify and label some of the world's seas.
- Using Student Sheet 1b and laptops or tablets students access the online galleries.
- Students annotate their world maps with information about the different marine species and habitats. Students then colour in the map showing where different species and habitats are found.
- Students should include a number of physical features such as the location of ocean ridges such as the Mid-Atlantic ridge, linking to prior knowledge about plate tectonics.

Slideshow 1:
Slides 5-12

Student Sheet 1a:
World map

Student Sheet 1b:
Marine ecosystems

Gallery:
Living reef

Gallery:
Deep-sea creatures

Gallery:
The Great Barrier Reef

Diagram:
Deep Ocean Poster

3
10
mins






Step 3 asks students to compare and contrast different marine animals.

- Hand out Student Sheet 1c and 1d.
- Working in pairs students read the information about a variety of marine species.
- Students compare similar marine species, for example stag horn coral and sea anemone or mantra ray and green turtle. Student shouldn't compare two extremely different animals like a great white shark and an anemone. They then write informative paragraphs comparing and contrasting the species.
- Following this, students pick their favourite five species and locate where they live on their world maps.

Slideshow 1:
Slide 13

Student Sheet 1c:
Competing creatures

Student Sheet 1d:
Coral life

Step	Guidance	Resources
4 10 mins	 <p>Steps 4 asks students to consider the impact humans have on the world's oceans.</p> <ul style="list-style-type: none">· In pairs, students list what humans do and what resources we use that involve the ocean e.g. fishing, surfing etc.· Ask students to share their answers.· Following this students think about how the actions of humans could affect the ocean. Examples are shown on slide 15.	Slideshow 1: Slides 14-15
5 5 mins	 <p>Step 5 asks students to reflect on their learning and think of questions that they would like to find out more about.</p> <ul style="list-style-type: none">· Choose students to express how they met the learning outcomes. For each question bounce it to at least one more student to assess learning.· Give students the opportunity to ask questions, this can be used as an opportunity to clear up any misconceptions or write a list of further questions for investigation.	Slideshow 1: Slides 16-18
H/L 30 mins	 <p>Students create a fact-file about UK marine environments, including information about the species found in UK waters and how humans use those waters.</p>	