

Our ocean and us



Age 11-14



60 minutes

Curriculum links

- Understand the interdependence of organisms in an ecosystem
- Understand economic activity in the primary sector

Resources



Slideshow 2:
Our ocean and us



Student Sheet 2a:
Goods and services factsheet



Student Sheet 2b:
Goods and services worksheet

Subject Update:
Learn more: What are ecosystem goods and services?

Extension or home learning

Students conduct research about the fishing industry in the UK, creating a fact-sheet covering the following questions: Where do people fish, what is the value of the industry, how many people are employed in the industry and are there any restrictions?

Lesson 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.

Lesson steps

1. Ocean goods (10 mins)

Students are asked to reflect on how we rely on the oceans describing some of the ways such as for food and transport.

2. Ocean services (15 mins)

Students learn about key services provided by the ocean such as climate regulation and how marine environments such as mangrove forests prevent coastal erosion.

3. Letter to the Secretary of State for the Environment (20 mins)

Students write a letter to the Secretary of State for the Environment (inform students who this currently is) expressing their opinions and explaining why more needs to be done to protect the oceans.

4. Quiz (10 mins)

Students take a quiz which challenges their knowledge and understanding of the array of goods and services we use produced by the ocean.

5. Reflection (5 mins)

Students consider how the ocean is used and the subsequent threats to the oceans sharing their concerns with a partner.

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

Step Guidance

Resources

1
10
mins



Step 1 sees students learn about the goods and services ecosystems provide.

- Use slides 1-2 to introduce the lesson and the learning outcomes.
- Slide 3 provides students with definitions of ecological goods and services that they should copy into their books.
- Take some feedback from students of the examples they've thought of.

Slideshow 2:
Slides 1-3

2
15
mins



Step 2 involves students focusing on the services provided by ecosystems.

- Students match the key words to their definitions.
- Check answers by asking students for feedback.
- Using the information on Student Sheet 2a students are to complete Student Sheet 2b.
- Using slide 7, go through the different services that the ocean provides, ask students to further categorise the services, combining them into groups.
- Using slide 8 assess whether students have grouped the services correctly.

Slideshow 2:
Slides 4-8

Student Sheet 2a:
Goods and services factsheet

Student Sheet 2b:
Goods and services worksheet

3
20
mins



Step 3 involves the students writing a letter that is accurate, passionate and uses the correct format.

- Students are to write a letter to the Secretary of State for the Environment.
- Use slides 9-10 to demonstrate the correct letter format before beginning the task.
- Encourage students to use facts included on Student Sheet 2a in their letter as evidence, to make their arguments more convincing.

Slideshow 2:
Slides 9-10

4
10
mins





Step 4 asks students to reflect on their learning by completing a quiz.

- Students answer the questions on the board in their books, in full sentences.
- Students then compare their answers with their partner.
- Take feedback from class, if students are unable to answer the question, then bounce it to another pupil.
- Extension task - ask students to write five questions themselves and quiz their partner.

Slideshow 2:
Slide 11

TEACHER GUIDANCE 2 (page 2 of 2)

| Step | Guidance | Resources |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| 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">· Ask students to share what they've learned and any questions they have.· For each question check with other students to see if they already know the answer. This can be used as an opportunity to clear up any misconceptions or write a list of further questions for investigation. | Slideshow 2: Slides 12-14 |
| H/L 30 mins |  <ul style="list-style-type: none">· Students conduct research about the fishing industry in the UK. Students create a fact-sheet covering the following questions: Where do they fish, what is the value of the industry, how many people employed in the industry, are there any restrictions? | |