

Where is Timor-Leste and why does it have coral reefs?



Age 14-16



60 minutes

Curriculum links

- Ecosystems have distinct distributions and characteristics.
- There are major coral reefs in the world.

Resources



Slideshow 1:

Where is Timor-Leste and why does it have coral reefs?



Student Sheet 1a:

Timor-Leste and Coral Triangle info sheets

Student Sheet 1b:

Where is Timor-Leste and the Coral Triangle?

Student Sheet 1c:

Where are coral reefs located?

Student Sheet 1d:

Blank world map



Video:

Coral expedition: Wonders of coral

Video:

Seaview science: Biodiversity

Video:

Welcome to Timor-Leste

Lesson overview

This lesson introduces Timor-Leste, the case study for this scheme of work and coral reefs. Students will locate Timor-Leste and other important coral reefs on a map. They will also learn what conditions are needed for a coral reef to grow and the global distribution of coral reefs.

Lesson steps

Learning outcomes

1. Introduction to unit (5 mins)

Go through the scheme of work with the students making it clear to them that at the end of the 8 lessons they will complete a GCSE style exam paper.

- Understand the aim of this scheme of work

2. Introduction to Timor-Leste and the Coral Triangle (20 mins)

Students use the information sheets about Timor-Leste and the Coral Triangle placed around the classroom, to complete the Student Sheet. This task includes mapping the location of Timor-Leste and the Coral Triangle and making notes.

- Locate Timor-Leste on a map
- Give reasons why coral reefs are important

3. Key facts about coral reefs (15 mins)

Students to watch the videos. When the videos have finished students to complete the reflection table. Students then read the information about the Picky Polyps and shade the area they think coral reefs will be found on the Prediction Student Sheet.

- Describe the global location and distribution of coral reefs
- Describe and explain the global distribution of coral reefs

4. Where are the other warm coral reefs in the world? (10 mins)

Students to use an atlas and locate the different coral reefs on the blank world map.

- Identify different warm coral reefs

5. GCSE style questions (10 mins)

Students complete several GCSE style exam questions.

- Describe and explain the global distribution of coral reefs

Step Guidance

Resources

1
5
mins



Step 1 introduce students to the scheme of work. It is important that the links between the lessons and the OCR GCSE Geography A Specification are identified.

- Go through the learning objectives for the lesson.
- Select students at random and ask them to list any information they may know about coral reefs.

Slideshow 1:
Slides 1-3

2
20
mins



Step 2 introduces the class to Timor-Leste and the Coral Triangle. The aim of this task is for the students to develop their knowledge and understanding of both Timor-Leste and the Coral Triangle.

- Play the Welcome to Timor-Leste video students to annotate the worksheet – Where is Timor-Leste and the Coral Triangle?
- While the video is playing stick the information sheets on Timor-Leste and the Coral Triangle, around the room.
- While students are walking round the room making notes ask them questions about the information they are reading, ensuring they understand how unique and significant the Coral Triangle is.

Slideshow 1:
Slides 4-6

Video:
Welcome to Timor-Leste

Student Sheet 1a:
Timor-Leste and Coral Triangle info sheets

Students Sheet 1b:
Where is Timor-Leste and the Coral Triangle?

3
15
mins



Step 3 introduces coral reefs to the class.




- Play the Wonders of coral, and the Seaview Science: Biodiversity videos. Ask students to reflect on what they have learnt about coral reefs so far using the reflection table on slide 10.
- Give out the Where are coral reefs located? sheet. Students use the information about Picky Polyps to predict where coral reefs are found in the world.
- Go through the conditions needed for coral polyps to survive and flourish. Students to make notes on the Where are coral reefs located? Student Sheet 1c.

Slideshow 1:
Slides 7-12

Student Sheet 1c:
Where are coral reefs located?

Video:
Coral expedition: Wonders of coral

Video:
Seaview Science: Biodiversity

Step	Guidance	Resources
4 10 mins	 <p>Step 4 focuses on the distribution of coral reefs.</p> <ul style="list-style-type: none">· Go through the distribution of coral reefs, focus on areas on high concentration – what are the conditions in these areas that may mean there is such a high number of coral reefs?· Where are there anomalies? What could cause these to occur?· Go through the sea surface temperature picture and the discuss the clear link between sea surface temperature and the distribution of the coral reefs.· Hand out atlases, students to identify the location of the different coral reefs using only the latitude and longitude coordinates on slide 14.· Students find out the names of the identified coral reefs.	<p>Slideshow 1: Slides 13-14</p> <p>Student Sheet 1d: Blank world map</p>
5 10 mins	 <p>Step 5 GCSE style exam questions.</p> <ul style="list-style-type: none">· Students to answer questions in their books.· Extension - Students to use the mark scheme to peer asses another students work.  <p>To be completed for homework if not finished in lesson.</p>	<p>Slideshow 1: Slides 15-16</p>