

How do we mitigate coral reef destruction?



Age 14-16



60 minutes

Curriculum links

- Management of ecosystems sustainably.
- Bio-diverse ecosystems are under threat from human activity.

Resources



Slideshow 7:

How can we mitigate coral reef destruction?



Student Sheet 7a:

Blank world map

Student Sheet 7b:

Mitigation strategies information sheet

Student Sheet 7c:

MPA Knowledge organiser

Student Sheet 7d:

MPA information sheet



Video:

Stakeholder on the reef - Community

Video:

Stakeholder on the reef - Local Tourism

Video:

Stakeholder on the reef - Government

Lesson overview

In this lesson you will look at the different strategies implemented in places across the globe and the main strategy used in Timor-Leste. Students will be assessing the need for the mitigating strategies such as the MPA in Timor-Leste but also evaluating the strategies.

Lesson steps

Learning outcomes

1. Introduction to the lesson (5 mins)

Students to review the learning objectives.

- Understand the wider context and learning outcomes

2. Are mitigating strategies needed? (10 mins)

Students to discuss the threats and impacts learnt about in previous lesson and consequently the need to protect the coral reefs.

- Identify the links between the threats and the need for the mitigating strategies

3. Strategies used in other places in the world (15 mins)

Students to locate and describe the mitigation strategies used around the world.

- Map and describe different strategies to mitigate the threats to coral reefs

4. MPA in Timor-Leste (15 mins)

Students to use the MPA information sheet to create a fact file about the MPA used in Timor-Leste.

- Map and describe different strategies to mitigate the threats to coral reefs

5. Evaluate the effectiveness of the MPA in Timor-Leste (10 mins)





Students to judge the effectiveness of the MPA in Timor-Leste. Watch the videos Community, Government and Local tourism to include the view of the residents in Timor-Leste.

- Evaluate the effectiveness of the MPA strategy used in Timor-Leste, including the positives and negatives of the strategy

6. Consolidate the SOW (10 mins)

Students to consolidate the SOW into a 60 second speech.

- Reflect on learning

Step	Guidance	Resources
1 5 mins	 <p>Step 1 introduces the students to the lesson.</p> <ul style="list-style-type: none"> · Pick a few students to read out the learning objectives. · Ask students questions related to the previous lessons such as: Why are feral pigs a threat to coral reefs? Why are there no coral reefs found in the Thames estuary? 	<p>Slideshow 7: Slides 1-2</p>
2 5 mins	 <p>Step 2 begin to think about mitigation strategies.</p> <ul style="list-style-type: none"> · Students to copy the definition of mitigation into their books. · Lead discussion with class, ask students to give their opinions about the importance of mitigation strategies and example they learnt about during the home learning task from lesson 5. 	<p>Slideshow 7: Slide 3</p>
3 15 mins	 <p>Step 3 different examples of mitigation strategies used around the world.</p> <ul style="list-style-type: none"> · Hand out Student Sheet 7a one for each student and Student Sheet 7b one between 2 or one per group depending on how tables are laid out. · Students to use the mitigation strategies information sheet to annotate the world map. The students should identify the country and then add a description of what the mitigation strategy is used there. · Extension - Evaluate the effectiveness of the strategies, are they transferable, can each strategy be used in a completely different location? Explain answer. 	<p>Slideshow 7: Slide 4</p> <p>Student Sheet 7a: World map</p> <p>Student Sheet 7b: Mitigation strategies information sheet</p>
4 15 mins	 <p>Step 4 mitigation strategy used in Timor-Leste.</p> <ul style="list-style-type: none"> · Hand out Student Sheet 7c one for each student and Student Sheet 7d one between 2 or one per group depending on how tables are laid out. · Students to read the MPA information sheet and complete the MPA knowledge organiser. Through this they will learn about the mitigation strategy, Marine Protected Area (MPA) used in Timor-Leste. · Ask students to evaluate the use of an MPA and to suggest what other methods should be used alongside the MPA or instead of the MPA in Timor-Leste. 	<p>Slideshow 7: Slide 5</p> <p>Student Sheet 7c: MPA Knowledge organiser</p> <p>Student Sheet 7d: MPA information sheet</p>

Step Guidance

Resources

5

10
mins



Step 5 evaluate the MPA in Timor-Leste.

- Students to initially make some notes about the positives and negatives of the MPA in Timor-Leste, using the information they have just learnt.
- Play the three videos, students to make notes about what is said regarding the effectiveness of the MPA.
- Students to write a paragraph evaluating the MPA in Timor-Leste.

Slideshow 7:

Slide 6-9

Video:

Stakeholder on the reef - Community

Video:

Stakeholder on the reef - Government

Video:

Stakeholder on the reef - Local Tourism

6

10
mins



Step 6 summarise the SOW in 60 seconds.

- Students to work in pairs. The students need to review the whole SOW and condense it all down into just 60 seconds. This is a good way to start revision for the exam style assessment next lesson. It will identify areas of weakness within their knowledge of the SOW.
- Ask for volunteers to come up and read out their speech. If the student(s) is feeling very confident ask the other students sitting down to quiz them on their knowledge and understanding of the SOW by putting their hands up.
- Example of questions that could be asked:
 - What is a coral polyp?
 - What is the global distribution of coral reefs?
 - Where is the Coral Triangle?
 - Why are coral reefs important for biodiversity?

Slideshow 7:

Slide 10