

Live investigation: Reefs under threat



Age 7-14



45 minutes

Prep resources



Lesson:

Coral live prep 7-11
Coral live prep 11-14

Unit:

Coral Oceans 7-11
Coral Oceans 11-14



PD Collection:

Encounter Live support

Encounter Live support

If you have never joined a live lesson before use the guidance at <https://encounteredu.com/cpd/collections/encounter-live-support>, where you will find technical and educational support.

Live resources



Encounter Live:

Live homepage



Activity:

Ocean acidification in a cup

Activity:

Dissolving 'coral' and 'shells' in vinegar



Student Sheet:

Ocean acidification in a cup

Student Sheet:

Dissolving 'coral' and 'shells' in vinegar

Live lesson overview

This session illustrates how the increase in carbon dioxide in the ocean is impacting marine life. In two activities students learn how water becomes more acidic when carbon dioxide is bubbled through it and how acidic substances can 'dissolve' coral reefs and shells which protect ocean life.

Preparation

Live lessons work best when students have some prior knowledge and have prepared questions. Either teach a lesson from one of the Coral Oceans units linked on the left or choose a one-off Coral Live Prep lesson.

Questions generated by your class can be submitted via the Encounter Live tab in your Encounter Edu profile.

Learning objectives

- Recognise the importance of field research
- State that humans contribute to oceans becoming more acidic
- Describe how ocean acidity impacts marine organisms
- Formulate higher order questions

Session steps

- 1. Setup**
Check that you can view live chats by testing any YouTube Live video. Ensure you have the correct materials for the Live Lesson.
- 2. Introduction (5 mins)**
The presenter will open the session with a welcome and brief introduction to the expedition.
- 3. Subject knowledge (10 mins)**
The presenter will then explain how increased ocean acidity impacts on many living things in the ocean. At this point, distribute the resources to students, and they can make any preparations needed before commencing the activity, such as filling their beakers.
- 4. Activity one (10 mins)**
The presenter will begin demonstrating the activity, students can follow along in real-time. During this time, you can submit your students' questions via the live chat.
- 5. Subject knowledge (5 mins)**
The presenter will explain how acidic substances (in this case, vinegar) can 'dissolve' coral reefs and shells which protect ocean life.
- 6. Activity two (10 mins)**
The presenter will continue demonstrating the activity, students can follow along in real-time.
- 7. Q&A (5 mins)**
After completing the activity, the presenter will be able to answer pre-submitted questions and take part in the live chat.