

Live investigation: Sea level rise



Age 7-14



45 minutes

Prep resources



Lesson

Arctic live preparation lesson

Unit

Frozen Oceans Science /
Geography



PD Collection

Live lesson support

Encounter Live support

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

Live resources



Encounter Live

Live lesson homepage



Student Sheet

Sea level rise

Safety and Guidance



Participants should work in the centre of the table.

Carry containers with two hands, carefully observing the surroundings.

Live lesson overview

This activity is a great way of learning about sea level rise. This is a good way to clear up common misconceptions such as how melting sea ice in the Arctic will cause sea levels to rise. This investigation will provide students an opportunity to observe over time and compare how the melting of different types of ice in the Arctic and Antarctic will affect sea level rise.

Preparation

Live lessons work best when students have some prior knowledge and have prepared questions. Either teach a lesson from one of the Frozen Oceans units at <https://encounteredu.com/teacher-resources/topics/polar> or choose a one-off Arctic Live Preparation lesson, available to download on each live lesson web-page.

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

Check that you can view live chats by testing any YouTube Live video. Ensure you have the correct materials for the Live Lesson.

Learning objectives

- Make a prediction
- Describe how melting sea and land ice will affect sea levels

Session steps

1. Introduction (5 mins)

The presenter will open the session with a welcome and brief introduction to the expedition including any shout-outs to registered classes. During this time students to get into their allocated groups and set up their experiments.

2. Subject knowledge (5 mins)

The presenter will then proceed to speak about how the Arctic is changing and the importance of working scientifically to better understand changes in the environment. Then the team will do a resources check with your students before guiding them in the steps to set up the experiment.

3. Activity (25 mins)

The presenter will ask students to predict what will happen to the water (sea) level as the ice melts. Students should then share with a partner. They will then discuss more about how the Arctic is changing, what causes sea level rise and why it is an issue. In this exposition, they will discuss the physical states of water and its transition points. Students should observe and describe what happened in their two models, although this may happen later.

4. Q&A (10 mins)

After completing the activity, the presenter will be able to answer pre-submitted questions and take part in the live chat.