

Sea level rise



Details

What you need

- 2 full cans of food
- 2 clear containers (ideally slightly wider and taller than the cans)
- Some ice
- Marker pen

Introduction

This activity will show you how the melting of different types of ice impacts sea level rise. A common misconception is that melting sea ice in the Arctic will cause sea levels to rise. This demonstration shows how the melting of different types of ice in the Arctic and Antarctica will affect sea level rise in different ways.

Activity steps

1. Place the two cans of food in the clear containers (ideally the height of the containers should be higher than the cans).
2. Into one container put a mixture of ice and water, until it comes up to about 1cm below the top of the can. This is the Arctic Ocean model. The ice in the water represents the sea ice.
3. In the other container pour water (again until it comes up to about 1cm below the top of the can). Then place the same amount of ice used on top of the can. This is the Greenland or Antarctica model, where there is an ice sheet on top of the land.
4. Label each container and mark a line at the water level. What will happen to the water (sea) level as the ice melts?
5. Leave the cans for a time (up to 2 hours). The melt rate will of course vary with the warmth of the room and the amount of ice used.
6. Mark the level of the water after all the ice has melted. What difference can you see between the two containers? How could this affect people living in the UK or USA?

STUDENT SHEET

Results table

	Starting number	Finishing number	Change in number
Arctic Model (Ice in the sea)			
Greenland / Antarctica Model			

Summary question

Name one example where sea ice can be found

A _ _ _ _ C

Name two examples where land ice can be found

AN _ _ _ _ _ C _

G _ _ E _ _ _ _ D

Describe what happened to the water level in each model

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