

PART 1 - INSTRUCTIONS:

Part 2 has to be done in parallel with part 1

- 01 Place the object representing Earth in the container, in a way enabling you to place ice cubes on top of the object. For example, if you are using a bowl, you need to place it upside down, with the opening facing down.



- 02 Fill the container with water. It represents the ocean.



MATERIALS:



A glass



Transparent
container



An object (for
example, a bowl) to
represent the planet



Ice cubes



Water



Inspiration

MELTING ICE

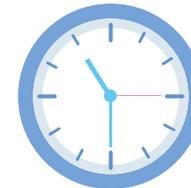
- 03 Place the ice cubes on top of the object representing Earth. The ice cubes now represent the Arctic ice.



- 04 Mark the water level in the container.



- 05 Simply wait for the ice to melt, and check how it changes the water level!



IS THE WATER LEVEL HIGHER? IS THE BOWL MORE UNDERWATER THAN BEFORE?

MELTING ICE

PART 1 - CONCLUSION:

In this experiment, the ice cubes melting mimic the melting of ice in the Arctic. It is an example to show the impact of the melting ice on sea water levels and on cities located near shores! As Earth warms up due to climate change, ice is melting more than ever. Important quantities of water coming from the melted ice pours out in the seas, rising their level as we can see in the experiment!

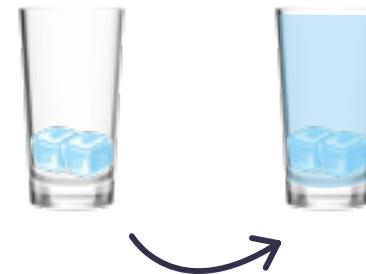
PART 2 - INSTRUCTIONS:

To be done in parallel with part 1

01 Put a lot of ice cubes in a glass.

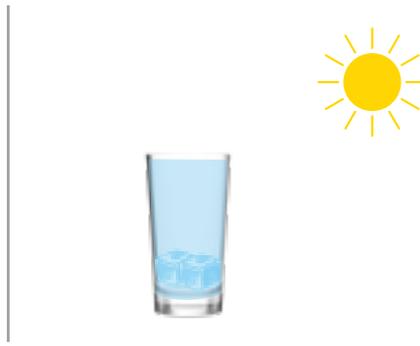


02 Fill the glass to the rim with water.



MELTING ICE

03 Leave the glass at room temperature, or in a warm place.



WHAT CAN YOU SEE?

PART 2 - CONCLUSION:

Why the glass did not overflow? When water is frozen, it takes up a certain space, but the fact is that the frozen water (the ice cubes) was already in the glass filled with water! No more water was added. Therefore, the space taken up by the ice is the same once the ice has melted.

If that is true, why are we worried about sea level rise? Because on Earth, ice is mostly found on continents, not in the oceans.

As the first part of this experiment shows, once the ice melts on Earth, it pours out into the seas. Which means that the water from the continents is actually added to seawater. Therefore, melting ice on continents will eventually cause sea level to rise.