

Sea Level Change - Melting Sea Ice

One of the greatest threats to the environment from Global Warming is the effect that an increased global temperature will have on sea level. Many scientists believe that low lying countries, such as Bangladesh will be flooded because of an increase in the Earth's sea level as a result of melting ice.

This activity looks at what effect melting sea ice, or icebergs will have on the sea level. In Melting Sheet Ice , you will investigate what effect melting land ice will have on the sea level.

Materials

- Large bowl
- Ice cubes
- Water

Method

1. Place the ice cubes in bottom of the bowl and place the bowl out into the sun light
2. Carefully fill the bowl with water until the water is level with the top of the bowl
3. Note the amount of ice floating in the bowl
4. Check the water level and the amount of ice remaining every ten minutes throughout the session

Results and Discussion

Record your observations of the water level and the amount of ice remaining in the bowl in the table below:

	Start	5 min.	10 min.	15 min.	20 min.	25 min.	30 min.
Water Level							
Amount of Ice							

1. Did the water level in the bowl change as the ice melted?
2. How can you explain your observation in question 1?
-
-
-

After you have completed the Melting Sheet Ice activity, complete the following question:

1. Will melting sea ice or melting sheet ice have the greatest effect on the sea level? Why?
-
-
-

Sea Level Change - Melting Sheet Ice

All of the world's ice can be divided into two different types: Sea Ice (Icebergs) and Sheet Ice (ice on land). Both types of ice are at risk of melting if there is an increase in the average global temperature of the Earth, but they have very different effects on the global sea level.

This activity looks at what effect melting sheet ice, or land ice will have on the sea level. In Melting Sea Ice activity, you will investigate what effect melting sea ice will have on the sea level.

Materials

- Large bowl
- Flat piece of wood
- Ruler
- Ice cubes
- Water

Method

1. On your block of wood, mark out the compass points around the four edges of the block.
2. Along the N-S edge, draw or score lines every 2 mm so that you can measure the water level.
3. On the E-W face, mark lines every 1 cm.
4. Carefully fill the bowl with water until the water is about 2.5 cm from the top of the bowl.
5. Place the wood in the bowl and place the bowl out into the sun light.
6. Put 1 to 2 blocks of ice on the Northern most edge of the block of wood.
7. Note the level of water on the North and South edges of the block.
8. Re-check the water level and the amount of ice remaining every ten minutes throughout the session

Results and Discussion

Record your observations of the water level on the Northern and Southern edges of the block of wood in the table below:

	Start	5 min.	10 min.	15 min.	20 min.	25 min.	30 min.
Water Level							
North Edge							
South Edge							

1. Did the water level in the bowl change as the ice melted?
2. How can you explain your observation in question 1?

After you have completed the Melting Sheet Ice activity, complete the following question:

1. Suggest some reasons why the melting of the two different ice types have such different effects on the sea level.
.....
.....