

Sea Level Rise



As ice melts on our continents, it flows through the rivers and catchments, eventually ending up in the seas and oceans leading to sea level rise. The oceans around the world are connected and the resulting sea level rise is a global process. But the effects of the rise are not uniformly felt.

This activity helps students understand how the local context (landscape and weather systems) interact with sea level rise and how this can impact people's lives.

TIME REQUIRED

20 minutes

QUESTIONS

- 1 Where will sea level rise be a problem?

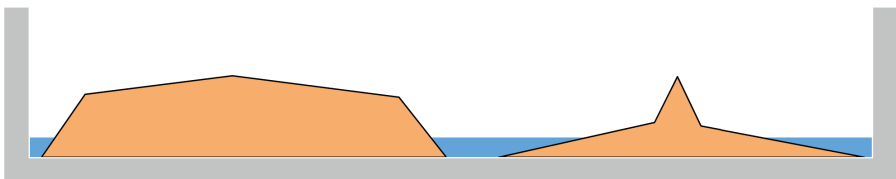
MATERIALS

- Shallow tray
- Water
- Sand, or modeling clay

PROCEDURE

- 1 Using a large shallow tray, have the students make two continents, or islands. These might be made from sand, or modeling clay.
- 2 Have one group make their island with steep sides, and have the other group make one with a relatively flat profile, with gentle slopes.
- 3 Each island should be of similar size, and reach the same height (even though one island has much more of it closer to the sea level).
- 4 Add some water to the oceans, but not too much.

INITIAL SEA LEVEL

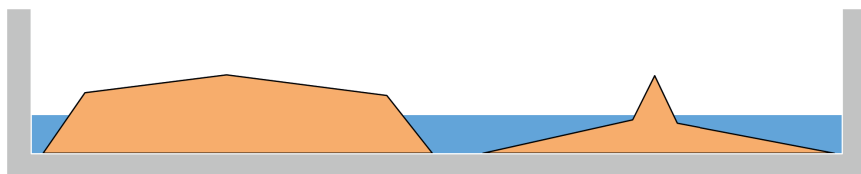


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5) Have the students look and consider what might happen if the sea level rises. Have them experiment to see how little waves made in the water impact the land. If appropriate, have the students estimate how much land area is dry on each island.

6) Have them gently add some more water into the system, and observe and comment on what they see. After the new sea level is established, have them again estimate how much land area is dry, which was most affected.

RAISED SEA LEVEL



VARIATIONS

- Extensions to this activity can include adding “plants” to the island. If the land areas have been made of sand, place some small simple paper plants into the soil, with their bases (roots) going perhaps 5 mm into the soil.
- If the islands are made from sand, the sea water will flow into the soil to a level similar to the sea level. Plants with roots in that soil will absorb the water, which if it has food coloring added) will be easily visible on the plants.
- Salt water kills most crop plants and many other native plants. As the sea level rises more and more of these plants will show the signs of salt water reaching their roots, even if the water is not visible on the surface.

Authors/Source

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