

# Eliminating Erosion

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Materials needed

- Ice-cream container
- Water
- Sand
- Wooden skewer
- Wooden or hard plastic ruler
- Wooden blocks
- Materials to test to reduce erosion: wooden sticks, plastic, aluminium foil, leaves etc.

## Steps

1. Place about three centimetres of water in the bottom of your ice-cream container.
2. Add sand to one side of your container until it reaches just about the water line. Place wooden blocks on the sand to act as houses.
3. Record the height of the sand using your wooden skewer and ruler.
4. Draw a diagram of what your model looks like.
5. Record the height of the sand using your wooden skewer and ruler.

Height of the sand: \_\_\_\_\_ centimetres (cm)

## Diagram of Erosion Model

6. List the materials in order of efficiency for reducing coastal erosion. (i.e. most efficient first).

\_\_\_\_\_

7. Choose one material to test its ability to reduce coastal erosion.

Material chosen: \_\_\_\_\_

8. Use a ruler to make small waves at the other end of the ice-cream container for 10 seconds.
9. Record the height of the sand again using your wooden skewer and ruler.

**After creating waves in the water the height of the sand was \_\_\_\_\_ cm.**

10. Test another material in repeat steps 7 and 8.

**Material chosen:** \_\_\_\_\_

**After creating larger waves in the water the height of the sand was \_\_\_\_\_ cm.**

11. Test another material and repeat steps 7 and 8 again.

**Material chosen:** \_\_\_\_\_

**After creating larger waves in the water the height of the sand was \_\_\_\_\_ cm.**

**Diagram of Erosion Model with an erosion reducing material**

**Question:** Which material (placed at the base of the sand) was the most effective at reducing erosion? How do you know?

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**Question:** Using the findings from your experiment, what could be done to help reduce coastal erosion at a sandy beach?

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