

Activity2: Investigating the resistance of rocks to erosion

The relative resistance to erosion of rocks on the same coastline affects the shape of the coastline. In areas where there are areas of alternating less resistant and resistant rock headlands and bays form. Headlands form where the rocks are more resistant to erosion. This activity allows pupils to test a variety of rocks and see how some may be more resistant to erosion.

Equipment:

Optional – balance to measure the mass of the rock fragments before and after each shake in the activity.

Plastic pot with a close-fitting lid

Fragments of different rock types (approximately 1cm in size)

Sheets of white paper

Stop watch

Coloured paper

Method:

Optional – use a balance to measure the mass of the rock fragments before and after each shake in this activity.

1. Put the rock fragments of one type in the plastic container and close the lid.
2. Shake the plastic container for 20 seconds.
3. Wait for the dust to settle and then open the plastic container and tip out the contents onto a sheet of coloured paper to see the resulting amounts of rock dust produced.
4. Pick out the larger pieces of rock and put them back into the plastic container and repeat steps 1 to 3, but leave the rock fragments on the sheet of paper.
5. Choose another rock type and repeat steps 1 to 4 for this second rock type.
6. Compare the sizes of the piles of dust and decide which rock type was most resistant to erosion.