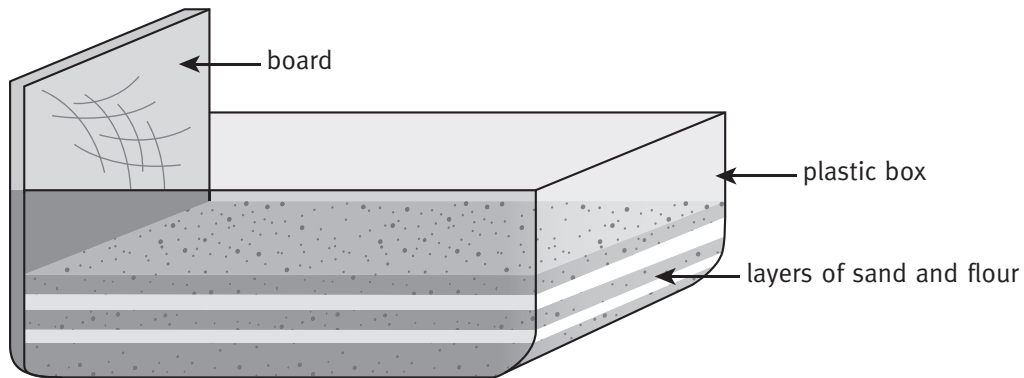


# Worksheet 8.11 Folding rocks



You are going to make a model to investigate one way in which different ages of rocks can end up together on the Earth's surface.

- 1 Find a plastic box. It doesn't matter exactly how big it is, but about 30 cm would be good.
- 2 Very carefully, build up several thin layers of sand and flour, as shown in the diagram. Stop when you get about half way up the sides of the box.



- 3 Now push the board, very carefully, across the box. You are modelling what happens when one tectonic plate pushes into another, crumpling the rocks.
- 4 Make a drawing of what you can see through the **side** of the box.



- 5 Over long periods of time, rocks at the surface of the Earth are weathered and eroded. Tall mountains are eroded faster than low-lying surfaces.

You may have made a 'mountain' in your model.

Take a piece of card, and slide it through the 'mountain', cutting off its top. Carefully remove the sand and flour that you have cut away.

Make a drawing of what you can see, looking down on the top of the box.

**Questions**

- 1 Which of the layers of sand and flour in your model represented the oldest rocks?

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- 2 Describe what happened to the layers of rocks when they were pushed by a moving 'tectonic plate'.

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**3** Use your model to explain how rocks of different ages and types can end up next to each other on the surface of the Earth.

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**4** Mount Everest is the highest mountain on Earth. Fossils of animals that once lived in the sea have been found near its summit.  
Find out how these fossils got there.

