



Name:

Form:

See **pages 8 and 9** of *The Mountain Book*

Mountain chains

1. Select an atlas map of Asia, or find the Himalayas map on the web site under 'In-depth... for projects' or on *The Mountain and Volcano Project* CD. (Go to Himalayas and then click 'Map'.)
2. Lay a large tablecloth on a flat surface.
3. You are going to make the cloth crumple up into folds in the shape of the Himalayas and the other mountain ranges of Asia.
4. Each person should put their hands flat on the cloth, as shown on page 9 of *The Mountain Book*.
5. Place your outstretched hands palm-down on the cloth and push the cloth so that it crumples into folds. Now compare the shape you have made with the mountain ranges shown on the atlas map. Push the cloth until you have a curved mountain chain, similar to the pattern shown in the atlas.
6. Now work out who has their hands on 'Northern Asia' and who has their hands on 'India'.
7. Now repeat the activity, forming mountain chains from other continents.

Answers

This is a practical and ideally needs groups of 4 or more. Before starting on this activity, everybody should have looked at picture 4 on page 9 of *The Mountain Book*.

In this demonstration, students can learn how to make quite complex shapes. They learn that by pushing a cloth they cause it to crease and form folds. They can see that by pushing in a number of directions, the folds can be made to form an arc.

Notes

From this demonstration it is possible to see that it is common to find arc-shaped patterns of mountains. Students can imagine which pieces of the earth's crust had to move to make this shape. For example, the Alps and the Himalayas are both arc-shaped, and so were formed by a small piece of crust moving faster and farther than its neighbours. In the case of the Alps it was Italy; in the case of the Himalayas it was India.

Some mountain chains, such as the Rockies, are almost straight. This suggests that the whole side of North America moved uniformly against the Pacific Ocean.

Students can thus come to some very profound scientific conclusions just by pushing a tablecloth about!