



How do waterfalls get made?

Fact

- The short answer to how waterfalls get made is “slowly” 😊
- There are three main ways that a waterfall can get made. One is when a riverbed flows along it washes away the soft earth or rock from around harder rock. This is called erosion. If the softer rock is downstream from the harder rock it will erode the soft rock away and a waterfall will form.
- Another common way that waterfalls form is when a glacier - a very slow moving huge river of ice – grinds it’s way down a valley making the valley much bigger than it was. When smaller valleys that had been running into the glacier valley are left behind they empty any water that was flowing out of them into the air and a waterfall is formed.
- Sometimes in an earthquake a piece of land can be lifted up about the land around it. If there was a river flowing over that land an instant waterfall can form.

Do you know

- Maruia Falls on the West coast of the South Island was formed in an earthquake
- The Sutherland Falls, in the South Island was formed by a glacier chiselling a path through a valley. The Sutherland Falls are the highest falls in New Zealand
- The soft earth and rock have been eroded away at Rainbow Falls in Kerikeri so the hard rock is exposed and is all that is left.

Experiments you can do

Make your own waterfall. We made ours out of ice cream and milk but that can be a bit messy and a bit expensive so make yours in a sandpit, at the beach or in a part of the garden that you’ve checked it’s ok to use.

With a waterfall the water has to... fall. So you’ll need to build one piece of land up higher than the rest. Use flat stones like a real waterfall to give your river a solid base to run over to become a waterfall and you can cover the rocks with dirt for the water to erode away.

Other Investigations

Are there any waterfalls near where you live? Perhaps your teacher can organise a class visit for you to find out how the waterfall was made. But you can do some investigation before you even get there. Have there ever been any glaciers in your area? What about earthquakes?

Jokes

What did the river say to the waterfall? Flow carefully, you might fall.