Laboratory Experiments to try out on rocks

Show what happens when granite is subject to heating and sudden chilling
Apparatus needed for this experiment: a hammer, samples of granite, gauze mat, Bunsen burner, tongs, cold water container

Find several samples of granite on the farm. First try to break up a piece of granite, using a hammer. You will find it very difficult. Granite is an extremely hard rock

Heat up the granite on a gauze mat over a Bunsen burner for several minutes. Carefully remove the hot rock with tongs and plunge into a bowl of cold water. Remove the cold rock from the water and attempt to break it up again. What doe you notice?

If the rock falls apart easily, sort out the minerals into 3 separate piles. Quartz has a glassy shine and is grey in colour. Feldspar is pink or pearly white. Mica is made of small black flakes

Why do you think the rock was much easier to break up after heating and rapid cooling?

What does the experiment suggest about the weathering of rocks?

Why are some minerals bigger than others? What was the percentage of quartz, feldspar and mica?

Abrasion – take several pieces of one type of rock and put in a plastic bottle with water and shaken for several minutes. Compare results with different types of rock.

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