

As geologists and geographers examine the photographs:

Describe what you see in each photo

Look at the rocks and the plants what evidence is here

Describe what you see; how that helps you explain what has happened to create the set of images

2 minutes

Discuss in groups of 5 what you think has happened here and create a story to explain a sequence in the photos and the links

8 minutes

Share your stories with the other groups and question each other about the stories to create a clearer story of these photos

Explanation

This is a photo taken on Doctors Flats Road on the way to Little Jasper NW of Canberra in Australia.

The sculptured limestone outcrops of the Wee Jasper Valley are highly scenic. They have significant scientific and educational values associated with their structural geology, caves and diversity of marine fossils.

The predominantly sedimentary rocks around Wee Jasper have been folded significantly by movements of the tectonic plates. This can be seen by the layers standing upright.

The Wee Jasper Valley is cut into a western arm of a huge U-shaped synclinal fold. The complex folding of the limestones is clearly visible in extensive rock exposures, which are obvious as these layers of rocks on the surface.

Wee Jasper has two different types of limestone:

- Taemas Limestone, overlying non-carbonate rock units;
- Cavan Limestone.

The hilliness of the terrain forces well laden rain clouds to rise and the rain falls from the clouds to wet the plains of the Wee Jasper area creating a good agricultural area.

The limestone forms many caves which can become reservoirs and helps to store water and this will flow out as streams and rivers to water the land and make it green.

These caves also become aquifers which are stores of water underground, away from the glare and heat of the sun which would make the water evaporate. These can be many years old stores of water.

To get to the water the farmers have drilled down to the aquifers and formed artesian wells

The open plains were, and are, still used for the farming of sheep and cattle.

Recent months have seen a drought. The farmers have relied upon artesian wells to get down to the water in the ground and bring it to the surface where it is stored in water holes so cattle and sheep can drink.