

G3-C: Regional metamorphism

Name: _____

Read this to answer the questions

Regional Metamorphism and Moree



Moree sits on the flat, rich, black-soil plains of the Gamilaroi people. The rich black soil washed down from the mountains further east, in the region we now call New England.

Some of Moree's Gamilaroi families originally lived in the granite regions in the New England region. The granite rocks there are the roots of ancient mountains called the New England Fold Belt.

How the New England Fold Belt was made

The New England Fold Belt is a huge area of mountains and folded rocks in eastern Australia.

Imagine two tectonic plates slowly crashing into each other. This is how the New England Fold Belt was made. An ocean tectonic plate was slowly pushed down and under the Australian tectonic plate. (When one tectonic plate goes under another one it is called subduction).

As the ocean plate slid under the Australian plate, mud, sand, and bits of rock were scraped off. This material piled up into mountains.

The crashing plates squeezed all these layers together incredibly hard. This pressure and the heat deep underground heated the rocks and squashed them. The rocks got huge, wavy folds, like wrinkles in a rug. When a big region of rocks gets hot and squashed, it is called **regional metamorphism**.

The tops of those mountains were weathered and eroded. Rivers carried the sediment west to the plains of Moree and other places.

What we see in New England today—places like Tingha, Glen Innes, Tenterfield and Armidale—are the tough, eroded roots of those ancient, giant folded rocks.

Questions

1. Where did Moree's rich black soil come from?

2. What is the New England Fold Belt?

3. What is subduction?

4. Which of the two tectonic plates in the text was pushed down under the other one?

5. What material was piled up into mountains?

6. Explain how the rocks got folded.

7. Define regional metamorphism

8. What part of the ancient mountains can we still see today in New England?
