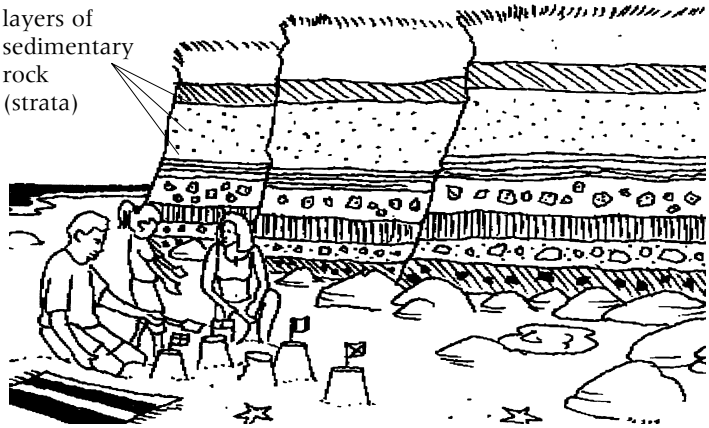
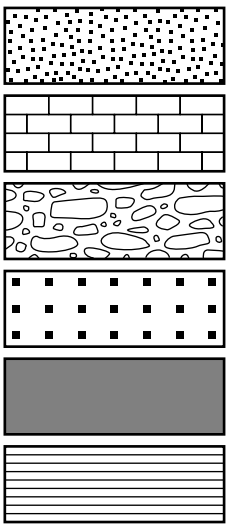
8Ha/6 Layers of sediment 2

Sedimentary rocks are formed from layers of sediment. These layers of sediment can be laid down over a very long period of time. If the type of sediment which is deposited changes, then the type of rock which is formed will also change. If different layers of rock are formed on top of one another, we get rock **strata** (layers) like those shown in the cliff face.



Imagine that the area where you are sitting was once covered by a sea. Water from a river was flowing quite quickly into the sea, and the first layer of sediment to be deposited was gravel, made up of fragments of other rocks. Over a period of time, the river water slowed down, and smaller rock fragments were deposited, forming a layer of sand. Shellfish lived in the water, and their shells formed a layer of sediment when they died. The sea level dropped and the water became much shallower and deposited a layer of very small clay particles. Trees and plants grew along the edge of the shallow water and as these died they fell into the water. Over a long period of time they formed a layer of sediment. There was a change in sea level and the shallow marshy area became flooded. Microscopic organisms called plankton lived in the warm waters. As they died, their remains formed another layer of sediment.

Symbols can be used to represent rocks:



8 H a

1 Draw out the layers of rock formed, as described in the passage above. Use the symbols above.

2 Why do you think scientists often show different types of rock with symbols rather than just drawing what the rock looks like?

3 Which layer of rock will be under the most pressure? Explain your answer.

4 What are layers of rock properly called?

5 Some limestone is not composed of many bits of shell. Draw out a symbol that could be used to represent this type of limestone.

6 **a** What does the word 'deposited' mean?

b Explain why the river no longer deposited gravel when it had slowed down.

7 When sand is squashed (compacted) by layers of sediment above it, the grains are pushed together.

a What happens to the water between the grains?

b How do the grains become 'glued' together to form sandstone?

c What is the proper term for this 'gluing together'?

S knowledge