

6.3 Rivers at work

In this unit you'll learn how rivers shape the land, by picking up material in one place and dropping it in another.

What work does a river do?

A river never sleeps. It works non-stop, day and night, cutting and shaping and smoothing the land.

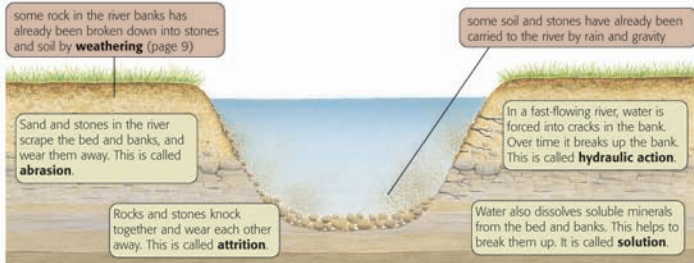
Rivers do their work in three stages:

- 1 they pick up or **erode** material from one place
- 2 they carry or **transport** it to another place
- 3 then they drop or **deposit** it.

Now we will look at each of these in more detail.

Erosion

This shows the different ways erosion takes place:



The faster it flows, and the more water it has, the faster the river erodes.

Transport

The material the river carries is called its **load**.



The faster it flows, and the more water it has, the larger the load the river can carry.



▲ Hard at work ...

Deposition

When it reaches flatter land, the river slows down. It no longer has the energy to carry its load, so it deposits it – just like you put things down when you are tired. The deposited material is called **sediment**.

But dissolved material stays in the water and is carried out into the lake or sea.



The slower it flows, the more material the river deposits.

Where does all this happen?



Your turn

- 1 **A** material is carried away material is picked up material is dropped
B erosion deposition transport
- 2 Now look at the photo on page 88.
a What work do you think the river is doing here? Say why you think so.
b What part is being played in this work by:
i the water itself? ii stones in the river?
Give the correct name for each process you mention.
- 3 **a** Look at this photo. What job is the river doing at X?
b Do you think the river is flowing quickly, or slowly, in this stretch? Explain why you think so.
c Is this area in the flood plain? Explain your answer.
- 4 During a heavy flood a river can transport trees and large boulders. Explain why.

