Worksheet 4

1 Changing river environments

**1.1 The main hydrological characteristics and processes that operate in rivers and drainage basins**

**A diagram of a diagram of a structure

AI-generated content may be incorrect.**

**Figure 1** The processes of transportation

1 As a river travels downstream it changes the landscape through river processes. There are four types of erosion and transportation. Figure 1 illustrates transportation processes.

a Draw your own diagram to explain the four types of erosion along a river bed and banks.

b Name the factors that cause a river to deposit its load.

c In which stages of the river (upper/middle/lower) would you expect to find each process?

**A drawing of a mountain with a red arrow pointing to the ground

AI-generated content may be incorrect.**

**A map of a river

AI-generated content may be incorrect.**

**Figure 2** Vertical and lateral erosion

2 Along the course of the river there are two main types of erosion that the river is involved in. Using Figure 2, explain what is meant by:

a Vertical erosion

b Lateral erosion

3 Use the words below to apply appropriate processes to the knowledge matrix. Try to add an explanation in the last column to explain the result of the process(es).

Hydraulic action Abrasion Attrition Solution Traction Saltation Suspension Abrasion

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **PROCESS 1** | **PROCESS 2** | **PROCESS 3** | **PROCESS 4** | **Explanation (optional)** |
| **Process of erosion** | Hydraulic action | Attrition |  | Solution | All of these processes result in the breaking down and wearing away of materials. |
| **Process of transportation** |  |  |  |  |  |
| **Does not involve the banks or bed** |  |  |  |  |  |
| **Materials become smaller, smoother and rounder** |  |  |  |  |  |
| **Does not require force/energy** |  |  |  |  |  |