Worksheet 2

1 Changing river environments

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

1 There are three main processes in the hydrological cycle – evaporation, condensation and precipitation.

a Draw a labelled diagram to show the relationship between them.

b List three stores and three transfers (flows) in the hydrological cycle.

c Consider how seasonal changes might affect the hydrological cycle. How might a wet season (a season of heavy rainfall) affect the availability of water within the system?

**A diagram of a river

AI-generated content may be incorrect.**

**Figure 1** The long and cross profiles of the River Tees, UK

2 Look at Figure 1.

a Which figure shows a longitudinal section of a river?

b Describe changes in gradient from the upper course to the lower course.

c Differentiate between the long profile and the cross profile of a river using Figure 1.

d Explain, using Figure 1 and fitting with Bradshaw’s model, how a river’s characteristics change from source to mouth.

3 Look at the textbook, page 4.

a Explain what ‘efficiency of a stream’ means.

b Explain how the efficiency of a stream’s shape is calculated.

c Suggest how friction and channel roughness are related.