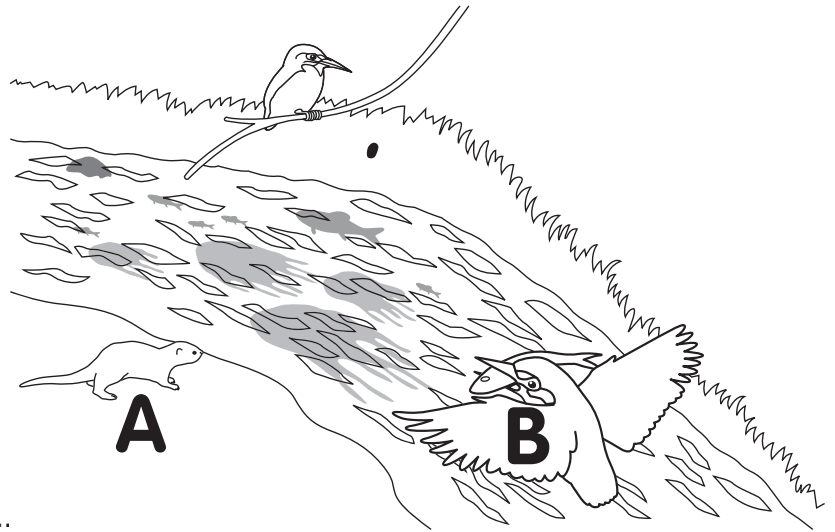


River and valley habitats

Rivers often begin as fast-flowing streams with rocky beds, then get slower and flow over muddy beds as they near the sea. As a result, rivers contain many different types of life.



Q1. (a) What is animal A?

.....

(b) State three ways in which its body is adapted to its way of life.

.....

Q2. (a) What is animal B?

(b) How is its beak adapted to catching its food?

.....

Q3. Why are there only a few plants in the upper part of a river?

.....

Q4. How is the tidal part of a river different from the middle reaches?

.....

Answers

Q1. (a) Otter.

(b) Webbed feet, waterproof coat, sharp claws and teeth to catch fish, closes its ears to keep water out.

Q2. (a) Kingfisher.

(b) Beak is strong and pointed for stabbing fish.

Q3. Because the water is fast flowing and there is a rocky bed which does not allow roots to grow.

Q4. It has mudflats and sandbanks which contain large numbers of animals. Large numbers of plants grow there. The water is salty.

river water. Students might consider chemical changes to the water, and also temperature changes, such as those that occur near to power plants;

- The way that many habitats are lost as river floodplains are turned over to cultivation, or upland valleys are dammed for flood control, hydroelectric power, or irrigation.

Background support

The three parts of the river form three different river habitats. In the upper part, the water is very cold. This allows it to take up more oxygen as it splashes over the rocks. The animals that live here are very sensitive to a high oxygen concentration and would perish if swept lower down where the oxygen level is lower. The animals here are adapted to clinging to rocks and feeding on items that fall into the river. Some caddis flies spin nets to catch small food particles as they are carried along with the current. The dipper is capable of walking underwater to feed.

In the middle part, the water is warmer and holds less oxygen. Plants that grow here are adapted to withstanding the currents. They have strong roots which grip the bank. Those plants immersed in the water have flexible stems that move with the water currents, and leaves which overlap, and point in the direction away from the current source, so they are not pulled off the stem.

In the tidal part of the river the water is somewhat salty and brackish. Plants and animals that live here must be adapted to the brackish conditions. Animals swept here from higher up the river would die.

Across the curriculum

Using this material you can link:

- Ideas of conserving areas of each type of habitat as national parks or similar. You may want to discuss what makes an area worth conserving in addition to its habitat;
- The impact of pollution of towns, industry, and farming whose wastes may get into the