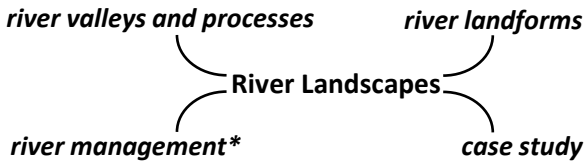
River Landscapes

Flood Risk

read

quiz

The Big Picture



Key Terms

Agriculture – Farming, including growing crops and rearing animals.

Deforestation – The action of clearing an area of trees.

Flood risk – The probability of flooding and the impact if it occurred.

Greenfield site – Land that has not been built upon previously.

Geology – The composition and structure of the Earth.

Infrastructure – The built environment including transport, buildings and services.

Relief – The shape of the land including height and steepness.

Urban sprawl – The growth of urban areas into rural surroundings.

Physical Causes

Heavy rainfall – water arrives too quickly to infiltrate the soil increasing surface run-off. Water rapidly reaches river channel.

Prolonged rainfall - Soil becomes saturated. This increases surface run-off as rainfall can no longer infiltrate the soil. Flood risk increases.

Geology - Impermeable surfaces e.g. clay and granite reduce infiltration leading to greater surface run-off. The risk of flooding increases as water reaches the river channel quickly, increasing discharge and the risk of flooding.

Relief - The steeper the slope the more rapid the flow of water into a river channel, increasing the risk of flooding.

Human Causes of Flooding

Disappearing gardens
The growth in the use of impermeable surfaces increases run off e.g. installing new drives and paving gardens.

New infrastructure
Urbanisation leads to new roads, houses, and other developments. This increases surface run off.

Agriculture
Field sizes have increased, loss of hedges means there is less interception increasing the risk of flooding.

Disappearing fields
Large scale farming leads to fields being replaced by huge sheds.

Forestry
Deforestation reduces interception and and roots no longer take water from the soil.