The Work of Rivers

Geography – Junior Cert

Quick Notes

The Work of Rivers

There are certain terms associated with river erosion. Hydraulic action occurs when the weight and speed of the river opens cracks and loosens rocks from the beds and sides of the valley. Abrasion is the wearing away of the beds and sides by the scouring action of the load. Attrition is the friction within the load and the friction between the load and the riverbed. Solution is the dissolving of minerals within the rock. The amount of erosion depends on volume, velocity, underlying rock and the load. Rivers transport their load by rolling the heavier rocks along the riverbed, hopping the lighter stones along the bed, carrying fine particles above the bed and dissolving other materials. Rivers will deposit material when there is a reduction in speed, a reduction in volume or a change in the nature of the load. Rivers, like humans, go through a life-cycle. The youthful stage (AKA the upper course) has certain features such as V-shaped valleys, interlocking spurs, potholes and waterfalls. The mature stage (AKA the middle course) has features such as meanders and Ox-bow lakes. The old-age stage (AKA the lower course) has leeves and deltas along its course. Rivers are very valuable in that they can be used to produce hydro-electric power (HEP), or to provide good sites for settlement, or to provide fertile soils for agriculture or to produce natural routeways for importing and exporting goods.