# AS Geography 1.2 Fluvial Environments   *Student Notes*

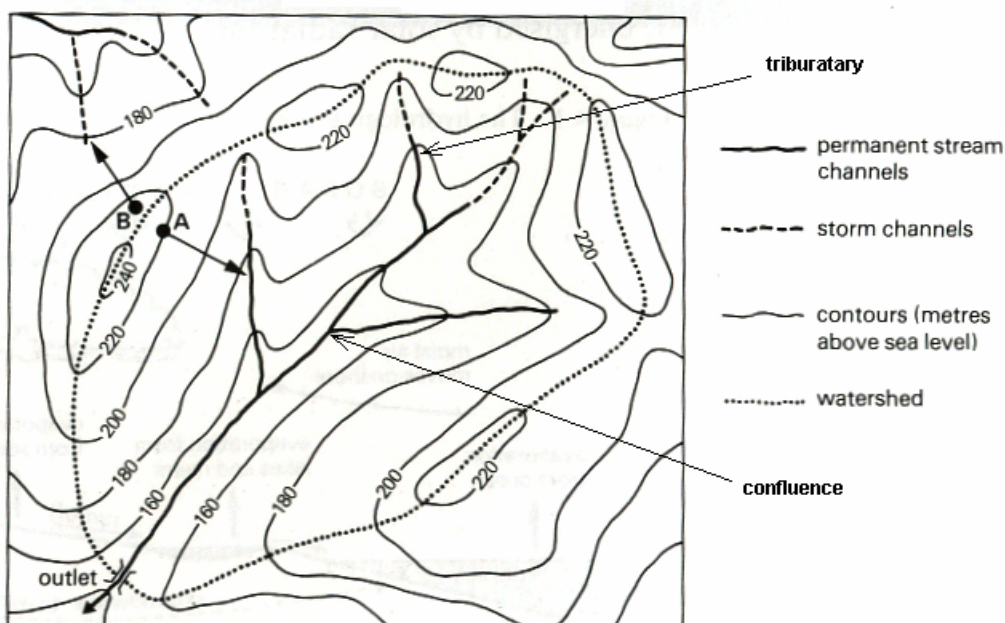## ⊛ The Drainage Basin as an Open System

Drainage basins (or river catchments) are part of the overall hydrological cycle. They have a single input in the form of precipitation and two outputs in the form of evapotranspiration and runoff. The variation in the amount of storage within the system can determine whether there is a balance between the inputs and outputs. This can be expressed as the Water Balance Equation:

Precipitation = Evapotranspiration + Run-off $\pm$ Changes in Storage
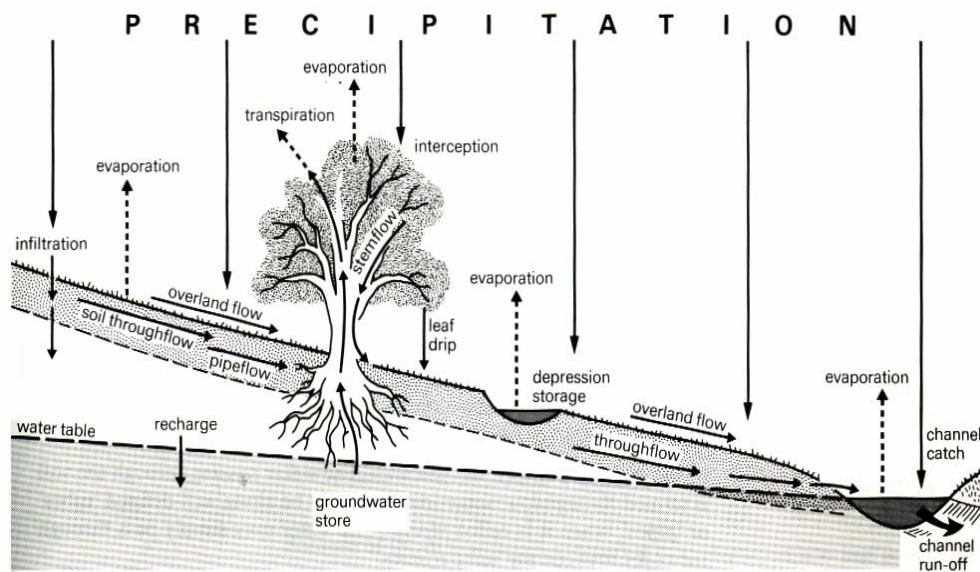
A simplified diagram of a drainage basin system.

A Sketch Map Showing the Characteristics of a Drainage Basin

To test your understanding of a drainage basin open system, complete the labels in the following flow diagram. The missing terms are **throughflow, evaporation, infiltration, transpiration, interception, soil storage, groundwater flow, overland flow, channel catch (direct precipitation in the channel) surface storage** and **channel storage.**