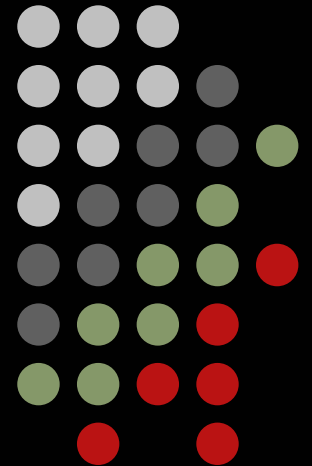




Geology



Study of the Earth





Types of Rocks

Rock Type	Igneous	Sedimentary	Metamorphic
Formation	Consolidation of magma or molten rock material	From weathering, erosion, deposition and compaction through agents of erosion	Changes in existing rocks due to pressure and temperature
Example	Basalt	Sandstone	Schist





Rocks and Groundwater

Groundwater **accumulation and movement** depends upon the nature of openings in the rock.



**Horizontal openings
keep water in an aquifer**



**Vertical openings take
away water from an aquifer**

Water Accumulates and Flows through



Groundwater accumulates and flows through openings (pores and fractures) in rocks.

Pores



Fractures



- Nature openings decide ground water flow through the rock.



Horizontal openings



Vertical openings



Inclined openings

Fractures may be...



Local

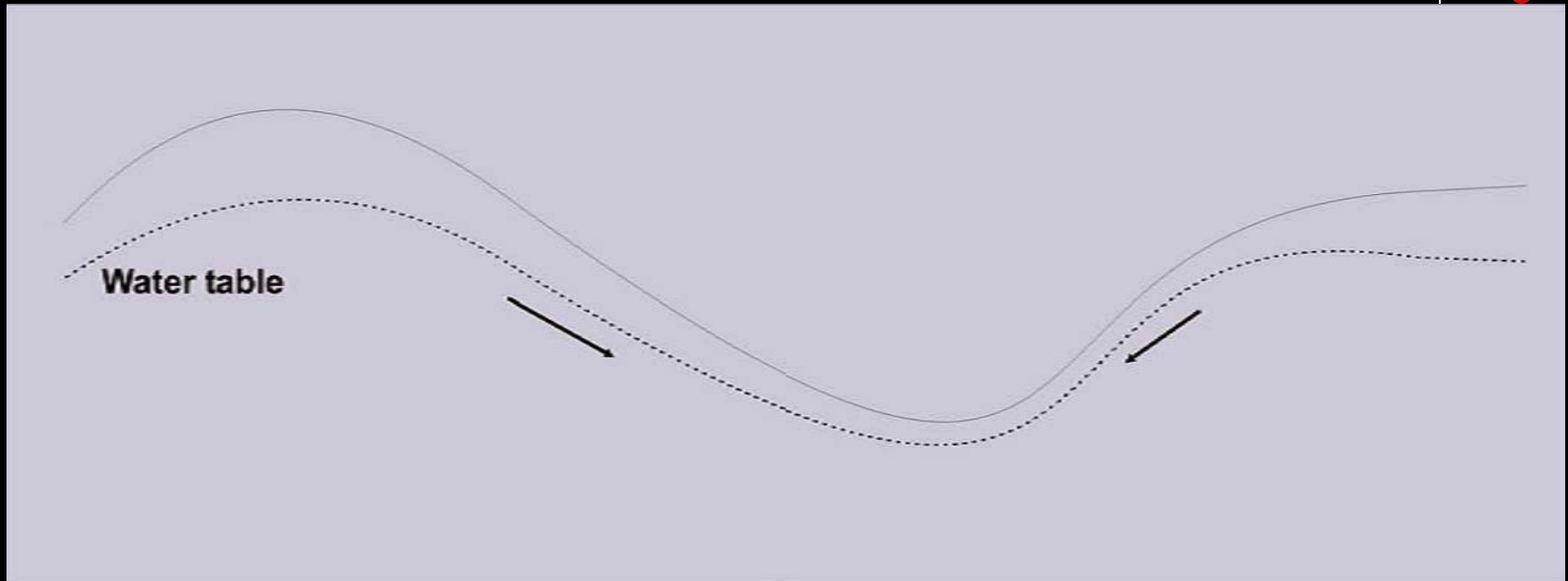


Regional



Shape of ground decides how water will flow
below and above it ...





On the other hand, water is an important agent in shaping ground surface...



Action of Water on the ground

Weathering: Process of disintegration of existing rocks

- Erosion: Transportation of weathered material

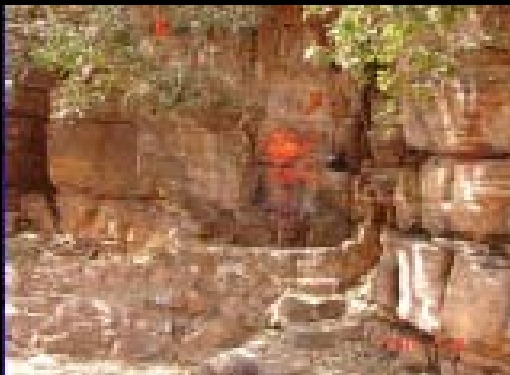
BOTH THESE PROCESSES WORK HAND IN HAND





Lessons

- Groundwater **accumulation and movement** depends upon the **nature of openings** (pores and fractures) in the rock.
- Nature of openings depends upon the **type of rocks.**



Identifying hydrological properties of rocks:



Texture-

- **Granular:** Sedimentary rocks may be with intergranular spaces.
- **Course:** Hard rock, secondary opening.

Openings-

- **Primary:** Pores within grains of rocks.
- **Secondary:** Fractures/cracks/joints or due to weathering.