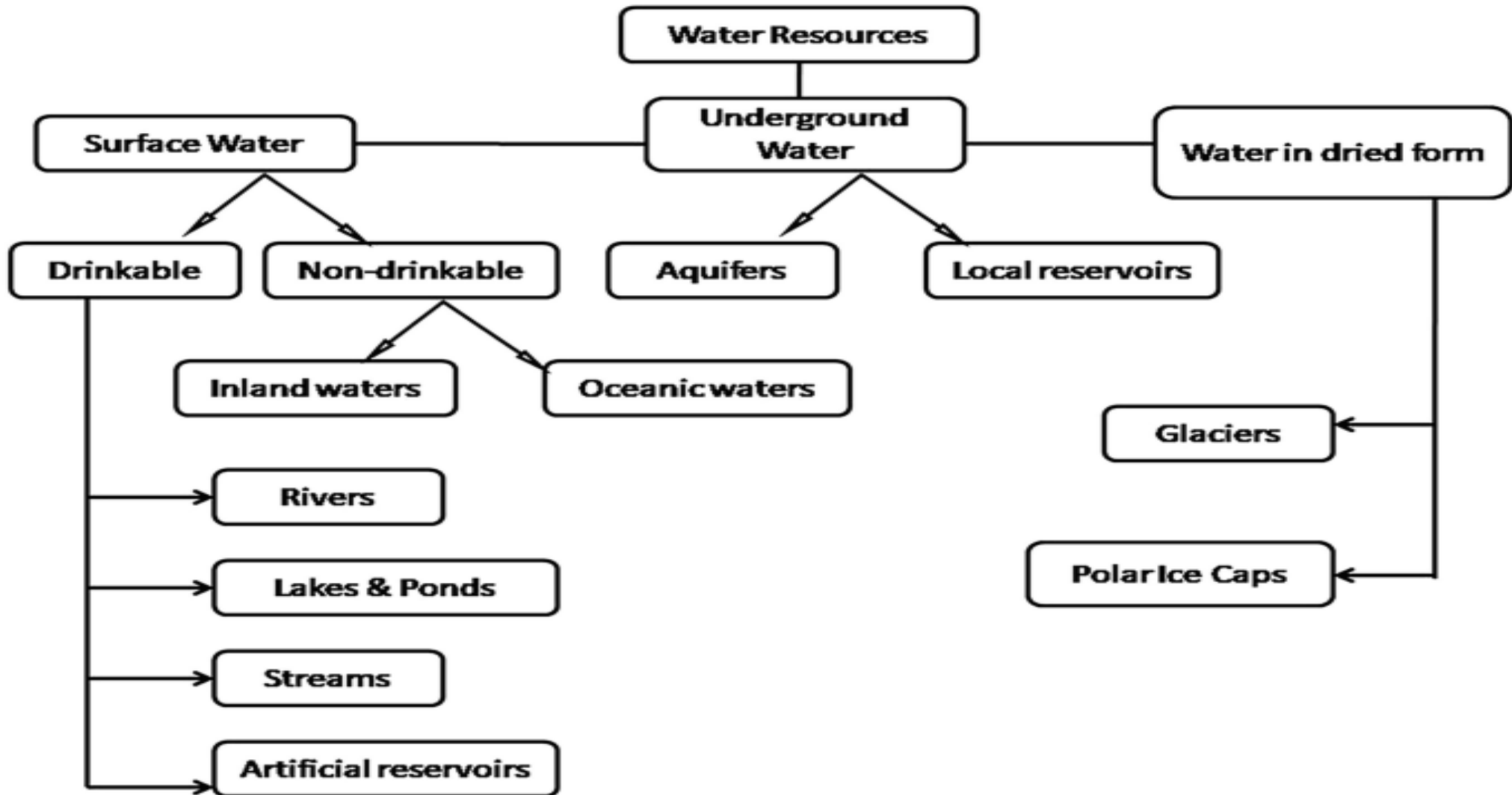


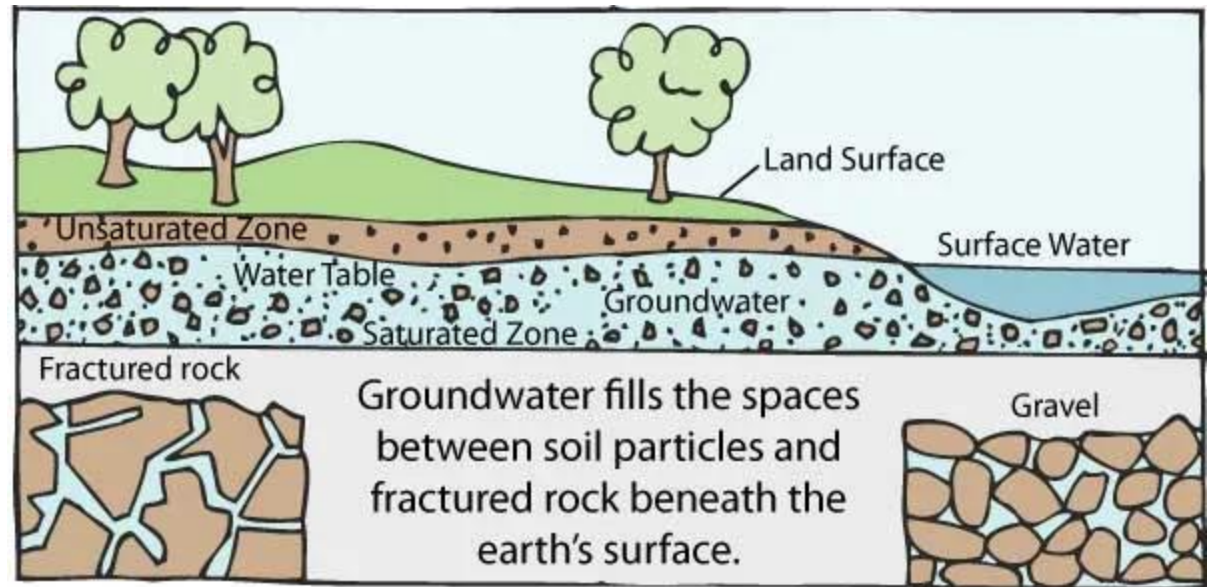
Classification and Characteristics of water resources

Flow chart of classification



Classification of water resources

- Water resources occur in various forms, but the three most common are surface water, and groundwater.
- **Groundwater** is the water found underground in the cracks and spaces in soil, sand and rock. It is stored in and moves slowly through geologic formations of soil, sand and rocks called aquifers. .



- **Surface water** is water located on top of land, forming terrestrial (surrounding by land on all sides) waterbodies, and may also be referred to as *blue water*
- *Types of surface water*
- Salty Water.
- Fresh Water.



Aquifer

- **aquifer** is an underground layer of water-bearing, permeable rock, rock fractures, or unconsolidated materials (gravel, sand, or silt).
- The classification of aquifers is as follows: Saturated versus unsaturated; aquifers versus aquitards; confined versus unconfined;

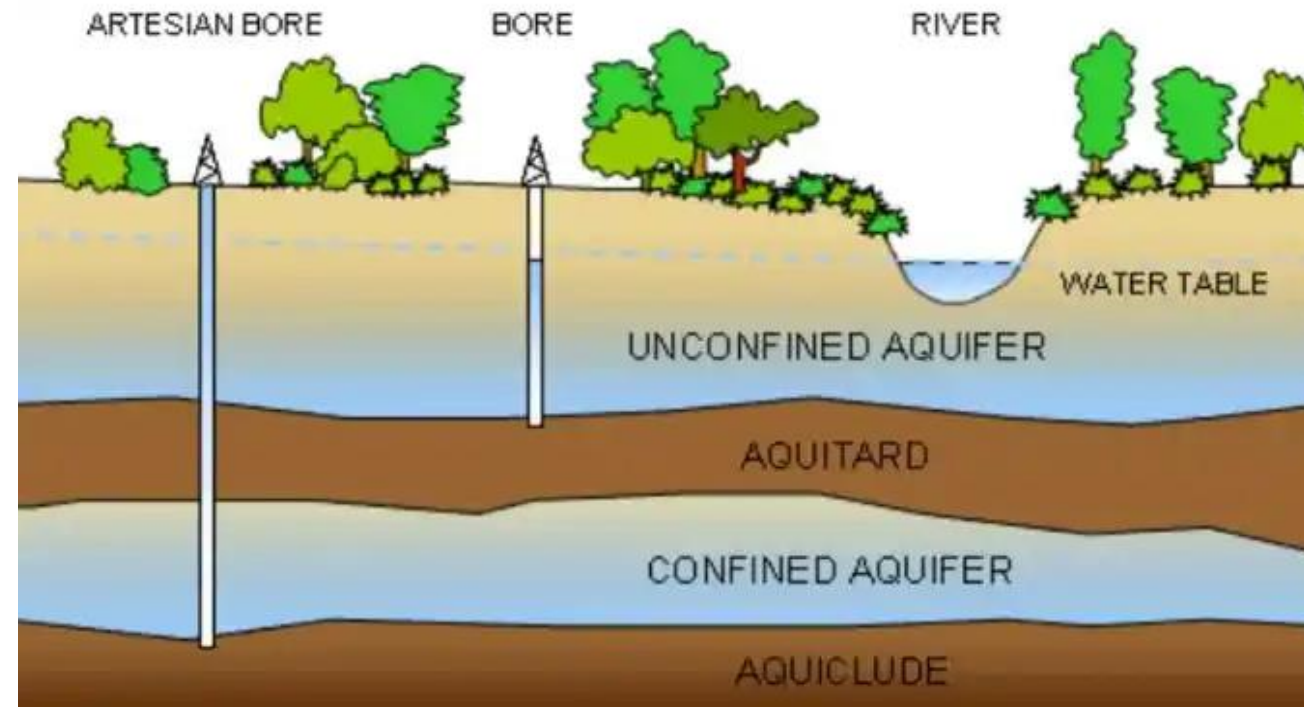


Aquitard

An aquitard is also a saturated formation. It permits the water through it but does not yield water in sufficient quantity as much as aquifer does. It is because of their partly permeable nature .ex sandy clay

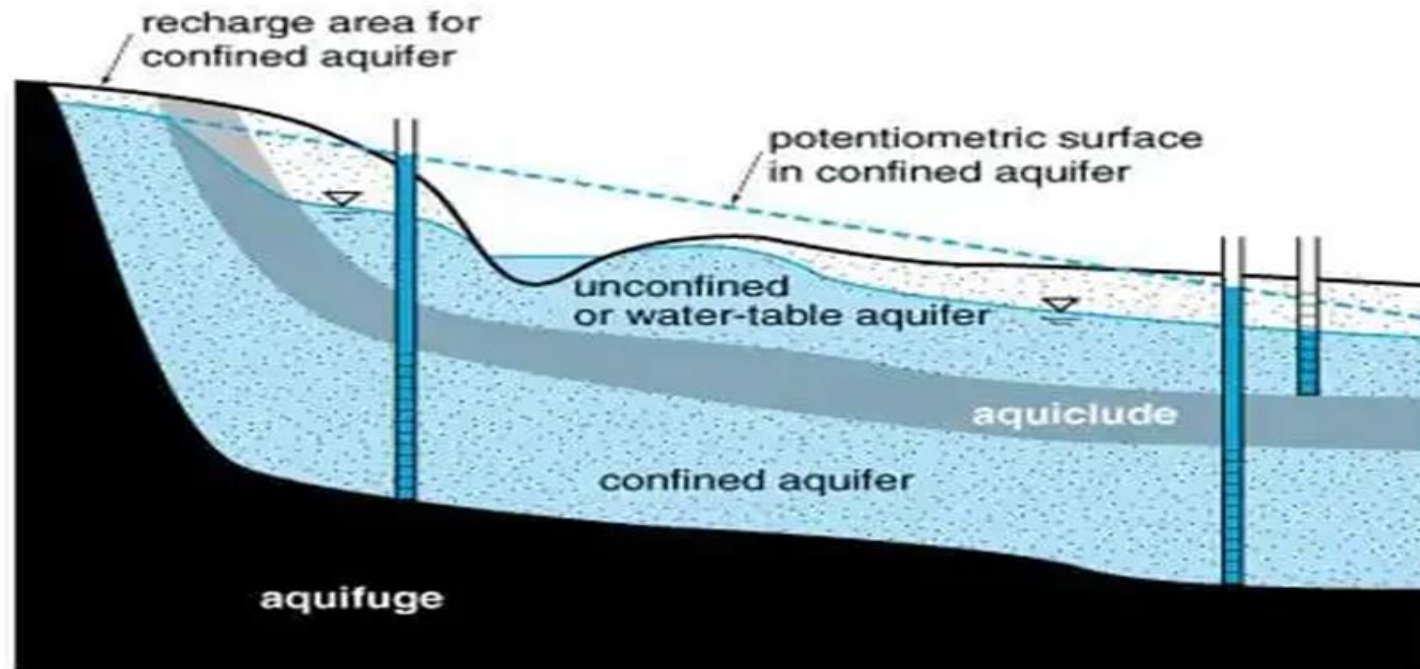
Aquiclude

An aquiclude is a geological formation which is impermeable to the flow of water. It contains a large amount of water in it but it does not permit water through it and also does not yield water. It is because of its high porosity. **Clay** is an example of aquiclude



Aquifuge

An aquifuge is an impermeable geological formation which is neither porous nor permeable - which means it cannot store water in it and at the same time it cannot permit water through it. **Compact rock** is an example of aquifuge.



Characteristics of water

- Three types of water characteristics are:
- Physical - physical parameters define those characteristics of water that respond to the senses of sight, touch, taste or smell.
- Chemical-Properties in which one substance changes to another substance. In this process, the characteristics of the substances change, and this is when chemical properties are observed.
- Biological-Biological Properties represent the direct and indirect influence of the living organisms habituating a particular water body.

Physical characteristics

- Some of the major physical characteristics of water are as follows: 1. Suspended Solids 2. Turbidity 3. Color 4. Taste and Odour 5. Temperature
- Chemical characteristics
- Some of the chemical characteristics of water are :-
- Density ,Melting point, electrical conductivity, Turbidity, Alkalinity, Acidity, hardness
- Biological Characteristics

Some of the biological characteristics of water are:

BOD, microorganism growth,

Thank you...