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Question:- Biogeochemical cycle ko chitra sahit varnan kare?

Answer:- In ecology and earth science, a biogeochemical cycle or substance turnover or cycling of substances is a pathway by which a chemical substance moves through biotic (biosphere) and abiotic (lithosphere, atmosphere, and hydrosphere) compartments of earth. The are biogeochemical cycles for water and silica; macroscopic cycles such as the rock cycle; as well as human-induced cycles for synthetic compounds such as polychlorinated biphenyl (PCB). In some cycles there are reservoirs where a substance remains for a long period of time.

Systems:-

Ecological systems (ecosystems) have many biogeochemical cycles operating as a part of the system, for example the

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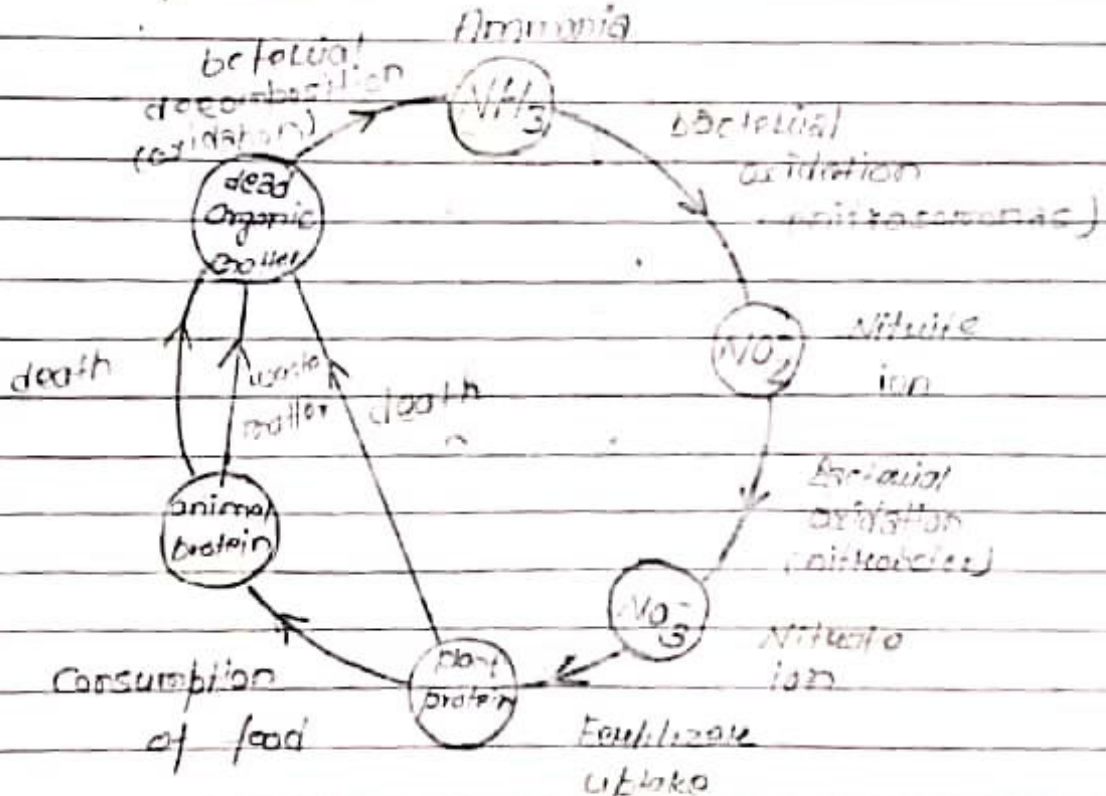
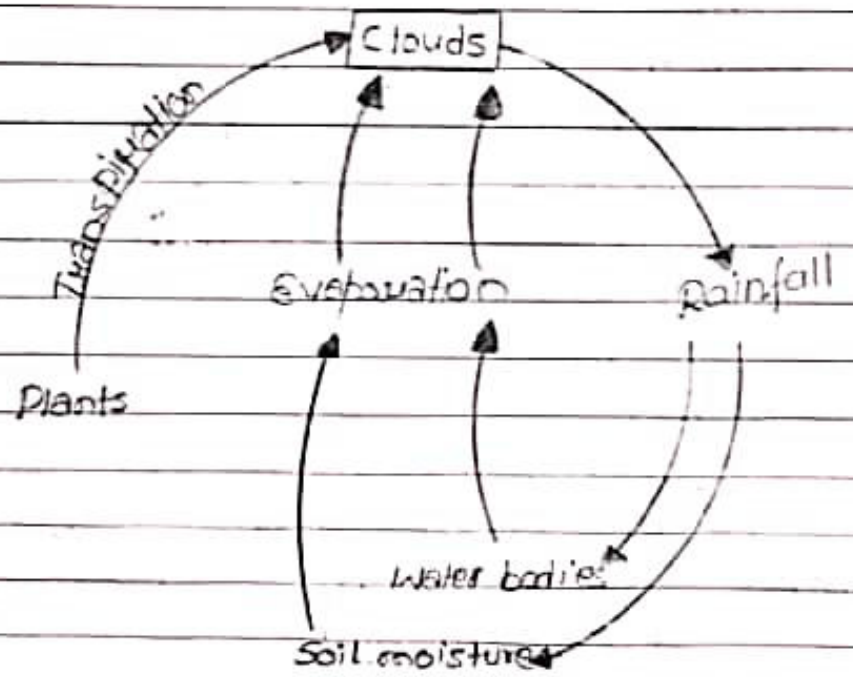
water cycle, the carbon cycle, the nitrogen cycles, etc. All chemical elements occurring in organisms are part of biogeochemical cycles. In addition to being a part of living organisms, these chemical elements also cycle through abiotic factors of ecosystem such as water (hydrosphere), land (lithosphere), and/or the air (atmosphere).



The flow of energy in an ecosystem is an open system; the sun constantly gives the plant energy in the form of light while it is

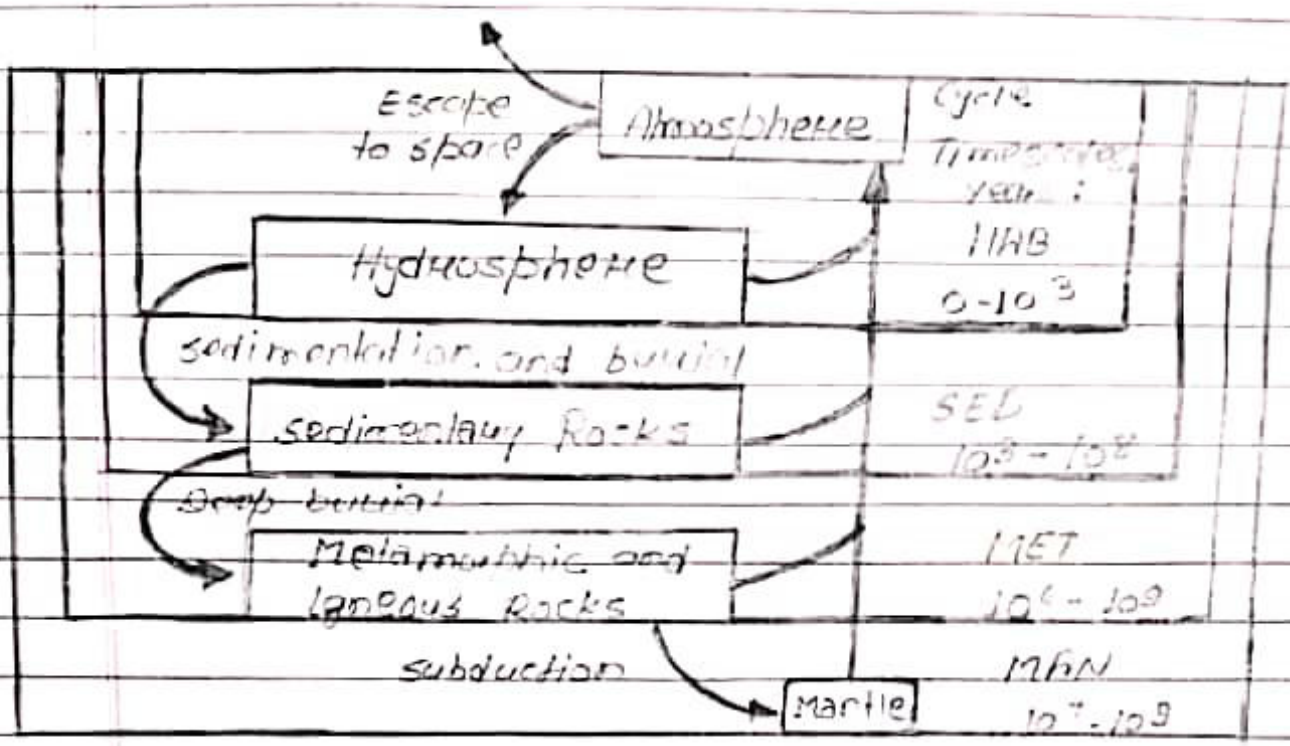
eventually used and lost in the form of heat throughout the trophic levels of a food web. Carbon is used to make carbohydrates, fats and proteins, the major source of food energy. These compounds are oxidized to release carbon dioxide, which can be captured by plants to make organic compounds. The chemical reaction is powered by the light energy of the sun.



Water cycle.

Sunlight is required to combine carbon with hydrogen and oxygen

into an energy source, but ecosystems in the deep sea, where no sunlight can penetrate, obtain energy from sulfur.



Hydrogen sulfide from hydrothermal vents can be utilized by organisms such as the giant tube worm. In the sulfur cycle, sulfur can be released through the oxidation and reduction of sulfur compounds (e.g., oxidizing elemental sulfur to sulfite and then to sulfate).

Although the earth constantly receives energy from the sun its chemical composition is essentially fixed.