

TENDER HEART HIGH SCHOOL

Section 33 B, Chandigarh

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Subject: Geography

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Chapter 6

Rocks (continue)

(Sedimentary Rocks)

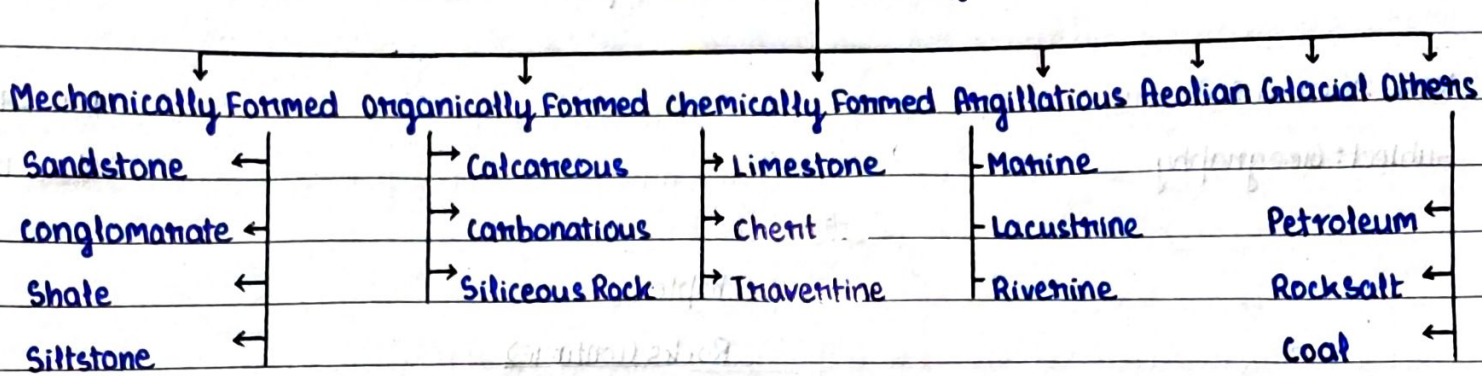
(B) Sedimentary Rocks:

- These are those rocks that are formed due to deposition of organic particles on the Earth's surface.
- Moreover, when weight and pressure of the overlying layers consolidates the organic particles that is deposited, it forms sedimentary Rocks.
- These rocks are formed in layers and they are deposited in or near the waterbodies.
- These rocks are also known as stratified Rocks, Layered Rocks or Secondary Rocks.
- eg: Limestone, Dolomite etc.

Features of Sedimentary Rocks

- These Rocks are formed from the sediments of Older Rocks, Plants and Animal Remains.
- These Rocks are found in layers.
- These Rocks are found in or near the waterbodies.
- These Rocks possess different size of joints.
- These Rocks are formed perpendicular to bedding plane.
- Folds and Faults are the special feature of Sedimentary Rocks.
- Most of the Sedimentary Rocks are permeable and porous.

Classification of Sedimentary Rocks



(1) Mechanically Formed Sedimentary Rocks:

These rocks are formed by fragments of pre-existing rocks with the help of process of weathering and Erosion. Moreover, these rocks are sub-divided according to their Grain Size.

Some important Sedimentary Rocks are:

(a) Sandstone:

- It is formed due to deposition, cementation and consolidation of Sand Grains.
- The grains of Sandstone vary in size and they can be coarse, medium or fine in texture.
- eg: Silica, Iron Oxide etc.

(b) Conglomerate:

- It is formed due to cementation and consolidation of Pebbles of various size together with sand.
- eg: Crestone Conglomerate.

(c) Shale:

- It is formed due to deposition and cementation of Fine Sediments of Silt and Clay.
- It is least affected by weathering and it is also insoluble in nature.
- eg: Bakken Shale (North Dakota), Eagle Ford Shale (Texas) etc.

(d) Silt Stone:

- It is a clastic Sedimentary Rock that has more content of silt and less content of clay.

(2) Organically Formed Sedimentary Rock:

- These rocks are formed from the remains of plants and animals.
- These rocks are also called fossils.

Some Important rocks of this type are:

(a) Calcareous

- They are formed due to deposition and consolidation of sediments that is derived from the skeletons and Lime containing Animals.
- These rocks are also known as carbonate rocks.
- eg: Limestone, calcium carbonate etc.

(b) Carbonaceous Rocks:

- These rocks are dominated by carbonic materials.
- They are formed due to transformation of vegetation inside the earth under weight and pressure.
- eg: Lignite, Bituminous etc.

(c) Silicious Rocks:

- They are formed due to aggregation and compaction of wastes that is derived from radiolarians, Organisms, Diatom plants etc.
- eg: Diatomite etc.

3. Chemically formed Sedimentary rocks:

- These rocks are formed when chemically active water comes in contact with substance.
- Some rocks of these type are:

(a) Gypsum:

- It is a soft rock that forms in lagoons where ocean water with high calcium content slowly evaporates.
- It is very useful in cement Industry, Plaster products etc.

(b) Chert:

- It is a hard fine grained rock that is composed of Microcrystalline and Cryptocrystalline quartz.
- This rock is found in different colours like grayish Brown, Light green etc.

(c) Travertine:

- This rock is formed due to chemical precipitation of calcium carbonate minerals from fresh water source like Rivers, lakes etc.
- It is mostly used in building material.

(4) Angillatious Rocks:

(a) Marine Angillatious Rocks:

→ These rocks are formed due to deposition and consolidation of sediments in oceans and seas.

→ eg: Sandstone, Limestone, dolomite etc.

(b) Lacustrine Angillatious Rocks:

→ These rocks are formed due to deposition and consolidation of sediments in the floor of lakes.

→ eg: Siltinite, Argonite etc.

(c) Riverine Angillatious Rocks:

→ These rocks are formed due to deposition and consolidation of Sediments in the floor of rivers on flood plains.

(5) Aeolian Sedimentary Rock:

→ These rocks are formed due to deposition of sediments that are brought by winds.

→ eg: Loess deposits.

(6) Glacial Sedimentary Rocks:

→ These rocks are formed due to deposition of sediments that are brought by glaciers.

→ eg: Terminal Moraines, Medial Moraines, Ground Moraines etc.

(7) Other Sedimentary Rocks:

<u>Petroleum</u>	<u>Rock Salt</u>	<u>Coal</u>
→ Petroleum means Rock Oil.	→ This salt is formed after the	→ Coal is a Sedimentary Rock that
→ This Rock Oil is found in the	evaporation of water in	has high amount of carbon and
Sedimentary Rocks, especially	Saline Lakes.	hydrocarbons.
in shallow marine environment.	→ Sambhar Lake, Aral Sea etc.	→ It is used as energy resource.

Uses of Sedimentary Rocks: (i) Limestone is used to produce cement and bricks.

(ii) Sandstone is used in construction work.

(iii) Rocksalt is used for consumption.

(iv) Petroleum and coal is used as energy resource.