Major Landforms and Their Economic Significance

Lesson No.	Title	Activity
7	Major Landforms and Their Economic Significance	Make a list of mountains and plateaus found in your nearby areas.

Meaning

The soft rocks are easily worn down by these forces. While the relatively harder rocks are not so easily torn down. Therefore, rocks have a great influence on the landforms developed in an area. The internal forces are perpetually elevating the earth's surface and the external forces about which you will study in the next lessons are constantly wearing down such elevations to make ,the surface level. This is how various landforms are formed by constant action of agents of gradation. These landforms are not only the physical features of the earth's surface but also the basis of human civilization.

Mountain

- A **landform** is a feature on the Earth's surface that is part of the terrain.
- Mountains, hills, plateaus, and plains are the major types of **landforms**.
- The uplifted portions of the earth's surface with steep slopes and small summit area rising above 1000 metres and formed over a period of million of years are called mountains .
- About 27% of the earth's surface is covered by the mountains.

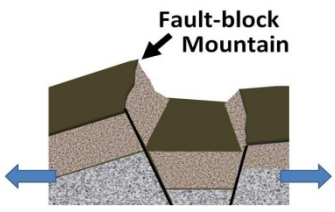
Classification of mountains

On the basis of their mode of formation, the mountains have been classified as:

(a) Fold Mountains

- Mountain ranges mainly consisting of uplifted folded sedimentary rocks are called **fold mountains**.
- When two plates move together (a compression plate margin), the movement of the two plates forces sedimentary rocks upwards into a series of folds.
- Fold mountains are usually formed from sedimentary rocks.

(b) Block Mountains



- Block mountains are also formed by the internal earth movements.
- When the forces of tension act on the rocks, they create faults in them. When the land between thetwo almost parallel faults is raised above the adjoining areas, it forms a**block mountain**.

(c) Volcanic Mountains

- When this molten rock material is ejected to the earth's surface during volcanic eruption, it accumulates around the vent and may take the form of a cone.
- The height of the cone increases with each eruption and it takes the form of a mountain.

(d) Residual Mountains

- The weathering and different agents of erosion constantly act on the earth's crust. These agents level down the elevated mountain ranges on the earth's surface.
- After thousands of years, soft rocks are worn down and the hard rocks are left but have been reduced in height. These are called **residual mountains**.

Economic Significance of Mountains

i. Storehouse of Resources
ii. Generation of Hydroelectricity
iii. Source of Water
iv. Formation of Fertile Plains
v. Natural Political Frontiers
vi. Effect on Climate
vii. Tourist Centres

Plateau

- The plateaus cover about 18% of the earth's surface.
- This landform has a large elevated area on its top unlike a mountain and has nearly even surface out

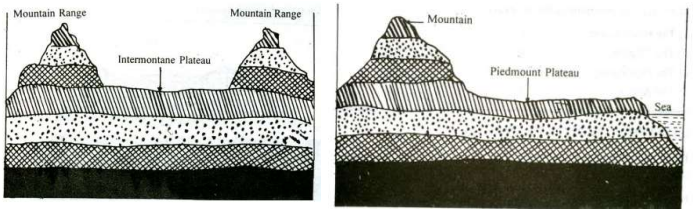
there and affected by rivers or streams to cut out deep valleys and gorges.
- Though normally 600 metres above sea level, there are plateau of Tibet and Bolivia, more than 3600 metres above sea level.

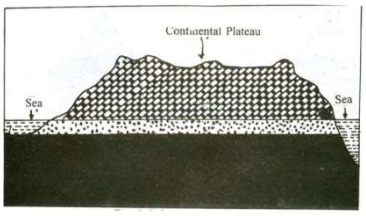
Classification of Plateaus

Intermontane Plateaus
- Wide tablelands that are situated between mountain ranges, when a plateau is surrounded by mountains on all sides.

Piedmont Plateaus
- Situated at the foot of the mountains and are bounded on other sides by a plain or an ocean are called piedmont plateau.

Continental Plateaus
- These are formed either by an extensive continental uplift or by the spread of horizontal basic lava sheets completely covering the original topography to a great depth.





Economic Significance of Plateau
- Storehouse of Minerals
- Useful for Animal-rearing and Agriculture:
- Generation of Hydel-power
- Cool Climate

Plains
- A low lying relatively flat or slightly rolling land surface with very gentle slope and minimum local relief is called a **plain**.
- Plains occupy about 55% of the earth's surface.
- Plains have an average height of less than 200 metres.

Classification of Plains
- **Structural plains:** These plains are mainly formed by the uplift of a part of the sea-floor or continental shelf.
- **Erosional plains**: These plains are formed by the continuous and a long time erosion of all sorts of upland.
- **Depositional plains**: Fragments of soil, regolith, and bedrock that are removed from the parent rock mass are transported and deposited elsewhere to make on entirely different set of surface features, these are **depositional landforms**.

Economic Significance of Plains
- **Fertile Soil-** The plains generally have deep and fertile soil.
- **Growth of Industries-**The rich agricultural resources especially of alluvial plains have helped in the growth of agro-based industries.
- **Expansion of Means of Transport**- Since the plains have an even surface it favours the building of roads, airports and laying down of railway lines.
- **Centres of civilization-** The plains have been the centres of many modern and ancient civilizations.

Evaluate Yourself
1. How plateaus are significant for human?
2. Why are the plains called 'cradles of civilization'?
3. Describe the significance of mountains.
4. Differentiate between:
   i. The intermontane plateau and the continental plateau.
   ii. The block mountain and the volcanic mountain.
5. Describe the types of mountains.