

# 5. Landforms of the Earth

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## EXERCISE

**A. Answer the following questions :**

1. What are Plains?

**Ans.** Plain is an extensive tract of flat land, a gently undulating terrain without prominent hills or depressions.

2. What is Orogenesis?

**Ans.** Orogenesis is the process of mountain building that occurs on large scale. It is also called, the birth of mountain.

3. Name the different types of mountains. Describe each of them with examples.

**Ans.** There are four major types of mountains:

(i) **Fold mountains:** Classified as young-fold and old-fold mountains.

- Young-fold are the newest group of fold mountains which include the Himalayas, the Alps, the Rockies and the Andes.
- Old-fold mountains have been subjected to the forces of denudation for long time. Hence, they are much lower and less rugged. For example, the Appalachian and the Aravalis.

(ii) **Block mountains:**

The movement of the Earth's crust causes cracks or faults.

Where such movement leaves a block of higher land standing between two areas of lower land, the highland is known as a 'Block Mountain' or Horst. For example, the Vosges.

(iii) **Residual mountains:**

When an area of highland remains standing above the general level after rivers and other natural agents have lowered the surface of the surrounding area, the term residual mountain is used.

For example, Highlands of Scotland.

(iv) **Volcanic mountains:**

Most of the active volcanoes are found in the neighbourhood of fold mountains. All around the Pacific Ocean there are many active and extinct volcanoes are present.

4. What are Plateaus?

**Ans.** Plateau is an elevated tract of relatively flat land usually limited on at least one side by a steep slope falling abruptly to lower land.

5. Name the various types of plateaus with examples.

**Ans.** Various types of Plateaus are:

(a) **Intermontane Plateau:** They are surrounded by mountains.

E.g. Plateau of Tibet.

(b) **Piedmont or Border Plateau:** They border the mountain ranges.

- (c) **Dissected or Domed plateau:** When running water of streams cut enough deep valleys in different parts of plateau. E.g., Mesas in Spain.
- (d) **Volcanic plateau:** The lava erupted from the volcanoes has resulted into numerous volcanic plateaus. E.g., Snake river region of Idaho.

6. State a few advantages of plains.

**Ans.** Advantages of plains are:

- (a) Construction of settlements, rails, roads, etc., is easy on flat and soft surface.
- (b) Fertile soils of alluvial plains are granaries of the world.
- (c) Most of the big cities are situated in plains.

7. Explain the types of depositional plains.

**Ans.** Types of depositional plains are:

- (a) **Alluvial plains:** Formed by gradual accumulation of silt brought down by rivers.
- (b) **Flood plains:** Formed when the river widens its valley or overflows its banks during floods, the clay and sand are deposited over large area. For example, Mississippi plain.
- (c) **Delta plain:** At the mouth of a river, triangular shaped plain of deposited material is called a delta plain. For example, plains formed by big rivers like Hwang Ho.
- (d) **Eolian Loess Plains:** Formed by the material which has been transported and deposited by winds.eg. Loess deposits of North China.
- (e) **Lacustrine Plains:** Formed from the filling of lake beds. For example, Plain of Hungary

8. State the main uses of mountains.

**Ans.** Main uses of mountains are:

- 1. Mountains are effective climatic barriers. Some places may have equable climate and some have extreme climate.
- 2. The swift streams of mountains are frequent sources of hydro-electric power.
- 3. They are rich sources of mineral wealth. For example, the Western Cordilleras provide gold, copper etc.
- 4. Mountain pastures have been utilised most extensively for cattle rearing.

5. It helps in setting up lumbering industries. Eg. The Himalayan slopes.

9. Differentiate between intermontane plateau and volcanic plateaus.

**Ans.**

<b>Intermontane plateau</b>	<b>Volcanic plateau</b>
They are surrounded by mountains.	The lava erupted from the volcanoes has resulted into numerous volcanic plateaus.
E.g., Plateau of Tibet.	E.g., Snake river region of Idaho.

10. Define a plain. How does it differ from a plateau?

**Ans.**

<b>Plain</b>	<b>Plateau</b>
Plain is an extensive tract of flat land, a gently and undulating terrain without prominent hills depressions.	Plateau is an elevated tract of relatively flat land usually limited on at least one side by a steep slope falling abruptly to lower land.

11. What are mountains?

**Ans. Mountains :** A portion of land surface rising considerably above the surrounding country, either as a single eminence, or as an extensive mountain chain.

12. State any two characteristics of young fold mountains.

**Ans.** Two characteristics of young fold mountains are:

1. Most of the active volcanoes are found here.
2. The mountains are characterised by ruggedness of relief in contrast to the smooth and rounded contours of mountain areas which had been subjected to weathering agents.

13. How are the young fold mountains useful? State one example.

**Ans.** They form a natural wall in northern India, which is difficult to cross. One example is the Himalayas in Asia.

14. How are alluvial plains formed?

**Ans.** Alluvial plains are formed by gradual accumulation of silt brought down by rivers. For example, the Ganga plain in India.

15. Give an example each of the following :

- (i) Fold mountains
- (ii) Block mountain
- (iii) Volcanic plateau
- (iv) Structural plain

**Ans.** Give an example:

- (i) **Fold:** Himalayas, Aravalis, etc.
- (ii) **Block mountains:** Vosges and Black Forest Mountains.
- (iii) **Volcanic mountains:** active and extinct volcanoes of Japan.
- (iv) **Structural plains:** The Great Plains of USA.

**B. Define the following terms :**

- 1. Intermontane plateaus

**Ans. Intermontane plateaus:** They are surrounded by mountains. For example, Plateau of Tibet.

- 2. Block Mountains

**Ans. Block mountains:** The movement of the Earth's crust causes cracks or faults. Where such movement leaves a block of higher land standing between two areas of lower land, the highland is known as a 'Block Mountain' or Horst. For example, Vosges.

**C. Diagrams :**

- 1. Draw a neat diagram to show the formation of Block Mountains.
- 2. With the help of a neat diagram show the formation of a flood-plain.

**Ans.** Students to do these themselves.

**D. Give a reason for the following Statements.**

- 1. Plateaus are called tablelands.

**Ans.** As they have flat top with steep sided slope.

- 2. Residual mountains are called the mountains of denudation.

**Ans.** As these mountains are formed and lowered down by the long term denudation & erosion by various agents of gradation.

- 3. The alluvial plains are called the granaries of the world.

**Ans.** Alluvial plains are formed by the deposition of alluvium by the rivers; therefore they have fertile soil which enhances the cultivation of grains.

4. The plateau of Tibet is called the intermontane plateau.

**Ans.** As Tibet is enclosed by Kunlun Mountain from the north & Himalayas from the south.

5. The old fold mountains are much lower and less rugged than young fold mountains.

**Ans.** The old fold mountains have been subjected to the forces of denudation for a longer geological period than the young fold mountains.

6. North western Deccan is an example of Lava plateau.

**Ans.** As the North western Deccan was formed by the cooling & solidification of lava. It has enormous accumulation of basaltic rocks.

**E. Choose the correct option.**

1. The systematic study of the earth's relief features is called\_\_\_\_\_.

- |               |                   |
|---------------|-------------------|
| (a) Geology   | (b) Pedology      |
| (c) Hydrology | (d) Geomorphology |

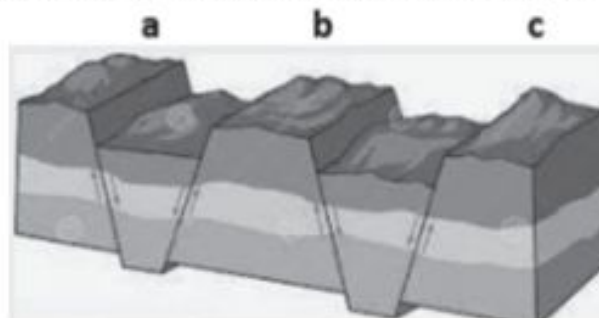
2. The Vosges & Black Forest Mountains are the examples of

- |                       |                       |
|-----------------------|-----------------------|
| (a) Fold Mountain     | (b) Volcanic Mountain |
| (c) Residual Mountain | (d) Block Mountain    |

3. Which of the following mountain is called the mountain of denudation?

- |                       |                       |
|-----------------------|-----------------------|
| (a) Fold Mountain     | (b) Volcanic Mountain |
| (c) Residual Mountain | (d) Block Mountain    |

4. Identify the type of mountain in this Image marked as a, b, c.

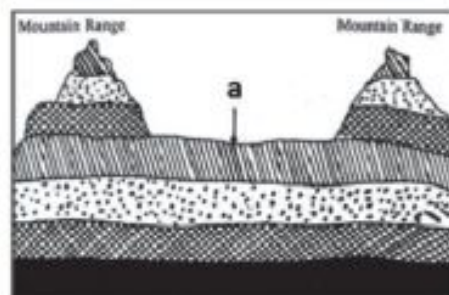


- |                       |                       |
|-----------------------|-----------------------|
| (a) Fold Mountain     | (b) Volcanic Mountain |
| (c) Residual Mountain | (d) Block Mountain    |

5. Which of the following is an example of young fold mountain?

- |                       |                    |
|-----------------------|--------------------|
| (a) Appalachians      | (b) Ural Mountains |
| (c) Aravali mountains | (d) Alps           |

6. Which of the following is an example of intermontane plateau?
  - (a) Ethiopian plateau
  - (b) Bolivian Plateau
  - (c) South African Plateau
  - (d) The Deccan Plateau
7. Which of the following is an example of structural plain?
  - (a) Plains of Northern China
  - (b) Hungary plain
  - (c) Great Plains of USA
  - (d) The Western European Plain
8. The plain which is formed at the foothills of mountain in the shape of fan is called \_\_\_\_\_.
  - (a) Flood plain
  - (b) Bhabhar
  - (c) Glacial Plains
  - (d) Piedmont alluvial plain
9. Refer to the image & identify the relief feature.
  - (a) Lava plateau
  - (b) Intermontane plateau
  - (c) Piedmont alluvial plain
  - (d) None of these



10. Which of the following relief feature is formed by the squeezing & wrapping of the sediments of the crust?
  - (a) Block mountain
  - (b) Fold Mountain
  - (c) Plateaus
  - (d) Plains
11. The plain which is formed as a result of emergence of sea bottom near coast is called
  - (a) Piedmont alluvial plain
  - (b) Flood plain
  - (c) Karst plain
  - (d) Structural plain
12. Orogenesis is the process of
  - (a) Hill formation
  - (b) Mountain building
  - (c) Rift valley formation
  - (d) Trench building

1. d    2. d    3. c    4. d    5. d    6. b    7. c    8. d  
 9. b    10. b    11. d    12. b.

