



## SECOND TERM E-LEARNING NOTE

**SUBJECT: GEOGRAPHY**

**CLASS: SS 1**

### SCHEME OF WORK

WEEK	TOPIC
1	REVISION / MOUNTAINS
2	PLATEAUX
3 - 4	LOWLAND (PLAINS)
5	THE ENVIRONMENT
6 - 7	WEATHER AND CLIMATE
8	COMPONENTS OF GEOGRAPHIC INFORMATION SYSTEM (GIS)
9	INTRODUCTION TO MAP READING: DEFINITION, TYPES OF MAP, AND SCALE
10	MAP DISTANCES (CONVERSION, DIRECTION AND BEARING)
11	REVISION

### REFERENCE MATERIAL

Essential Geography for Senior Secondary Schools, O.A. Iwena.

### WEEK ONE

#### TOPIC: MOUNTAINS

Mountains are great elevated land surfaces resulting from intense action of internal forces. They have steep slopes and show distinct peaks. Mountains are classified according to **their mode of formation**, resulting in four major types of mountains. These are (i) Fold mountain (ii) Block Mountain (iii) Volcanic Mountain (iv) Residual mountain

#### (a) Fold Mountains

**Characteristics:** They contain old hard rocks with steep sides. They have wrinkling or folding appearance and show distinct peaks of great heights. Fold Mountains exist in layered form. They are soft, and have anticlines and synclines.

Folding shortens the earth's crust. They form most wide spread type of Mountains and are noted for active volcanoes. They form the highest Mountain ranges. Examples of Fold Mountains include **Himalayas, Rockies, Andes, Alps and Atlas Mountains.**

**Mode of formation:** They are formed by large-scale horizontal earth movement as a result of stress and compressional forces which cause expansion or contraction of some parts of the earth. Such stresses therefore subject the rocks to compressional forces.

The compressional forces produce wrinkling or folding of the earth. The up folds of the wrinkles are **anticlines** while the down folds are called **syncline**.

A fold may be **simple**, but where the compressional forces are complex, it results in **asymmetrical folding**. When pushed further, it forms an **over-fold**. An over-fold later forms a **recumbent fold**. In some cases, faults or cracks result in extreme folding to form **over thrust fold**.

#### Evaluation Questions

1. What is a mountain?
2. State the types of mountains.



**(b) Block Mountains**

**Characteristics:** Block Mountains are made up of old hard rocks with flat or slightly sloping surfaces. They have steep sides. They are associated with rift valleys. Examples of Block Mountains include **Hunsruck Mountain, Voges Mountain and the Black Forest of the Rhine land**. Example of rift valley is the East African rift valley system which is about 4.800km.

**Mode of formation:** Block Mountains are formed when the earth cracks due to **faulting**. Faulting may result from tensional forces or compressional forces. Tensional forces are those that tend to pull the earth's crust apart and they result in a **normal fault** while the Compressional forces are those that shorten the crust to produce a **reverse or thrust fault**. Therefore, if a block of rock between two normal faults rises or the land on either sides of the block subsides, a **Block mountain or Horst** is formed. At times, a block in between two faults may subside so that **rift valley or graben** is formed. The slopes and height of Block Mountains are modified by agents of denudation.

**Evaluation Questions:**

1. Mention any three types of mountain.
2. Block mountain is also called.....
3. Rift valley is associated with .....Mountain?

**(c) Volcanic Mountain**

**Characteristics:** Volcanic Mountains are made up of lava. They have irregular sides with conical shape. Materials that make up volcanic mountains include ash, volcanic bombs, and cinders which are arranged in layers. Examples include **Mt. Fuji (Japan), Mt. Mayon (Philippines), Mt Kilimanjaro, Kenya, Elgon, Ruwenzori and Cameroon** (all in Africa).

**Mode of formation:** Volcanic Mountains are formed from volcanoes which are built from materials (molten magma) ejected through fissures or vents in the earth's crust. The materials also include molten lava, volcanic bombs, cinders, ash, dust and liquid mud. They fall around the vent in successive layers, building up an extensive volcanic cone. Volcanic mountains are also called **mountain of accumulation**.

**(d) Residual Mountain**

**Characteristic:** Residual Mountains are formed from...