Schedule for one week

15 NOV → 21 NOV

9:30 – 11:30

KHAN GLOBAL STUDIES

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UPPSC – 2023

LIVE CLASSES

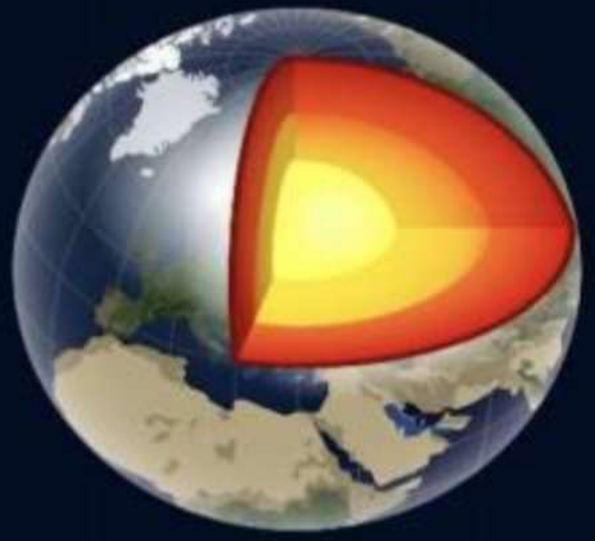
GEOGRAPHY

BY – AJEET SIR

आंतरिक एवं वाह्य बल

Pre.
Mains

ENDOGENIC & EXOGENIC FORCES



Endogenic

Exogenic

आंतरिक एवं वाह्य बल | Endogenetic and Exogenetic Forces

- भूआकृतिक प्रक्रिया | Geomorphic Process
- आंतरिक एवं वाह्य बल / Endogenetic and Exogenetic forces
- आंतरिक बल के उत्पत्ति के कारण | Causes of Endogenetic forces
- आंतरिक बल का वर्गीकरण / Classification of Endogenetic
- वाह्य बल का वर्गीकरण / Classification of Exogenetic

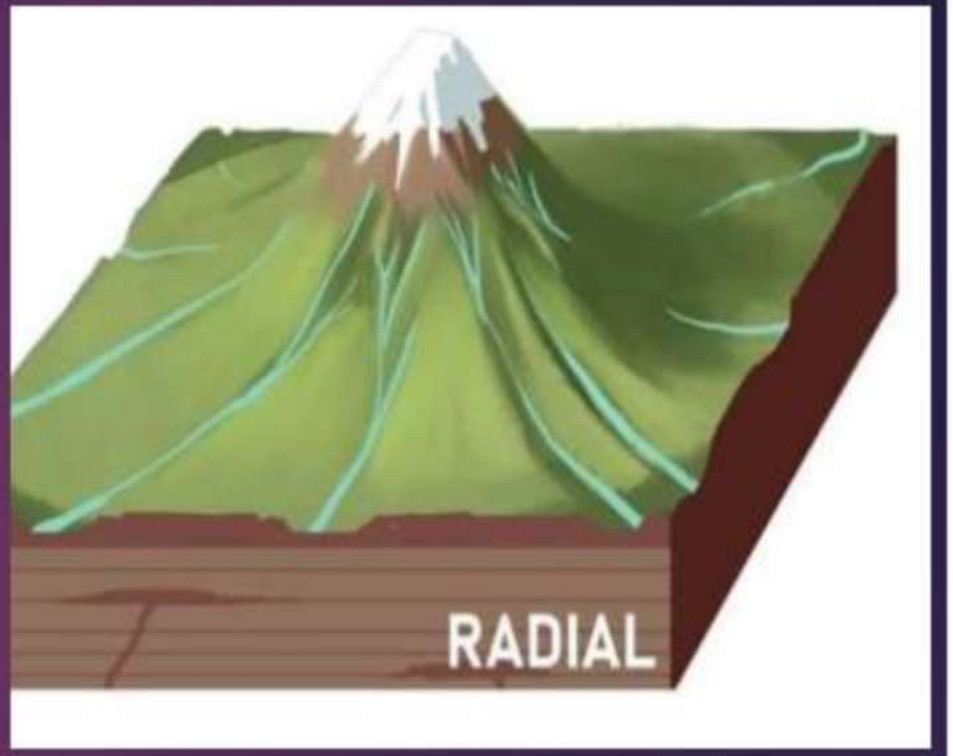
GEOMORPHIC PROCESS | भूआकृतिक प्रक्रिया

Geomorphic

- Geo → पृथ्वी / Earth
- Morphic → Landform (आकृति / Topography / Relief)

Process

- प्रक्रिया → कैसी



भूआकृतिक प्रक्रिया

↓

एक ऐसी प्रक्रिया जिसके कारण पृथ्वी सतह पर आकृतियों का विकास होता है।

Geomorphic Process

The Process that is responsible for formation of Land form at the Earth Surface.

भूआकृतिया Landform
- → Mountains | पर्वत
- → Plateaus | पठार
- → Plain | मैदान
- → Valley | घाटी

Land forms. → formation | निर्माण

↓

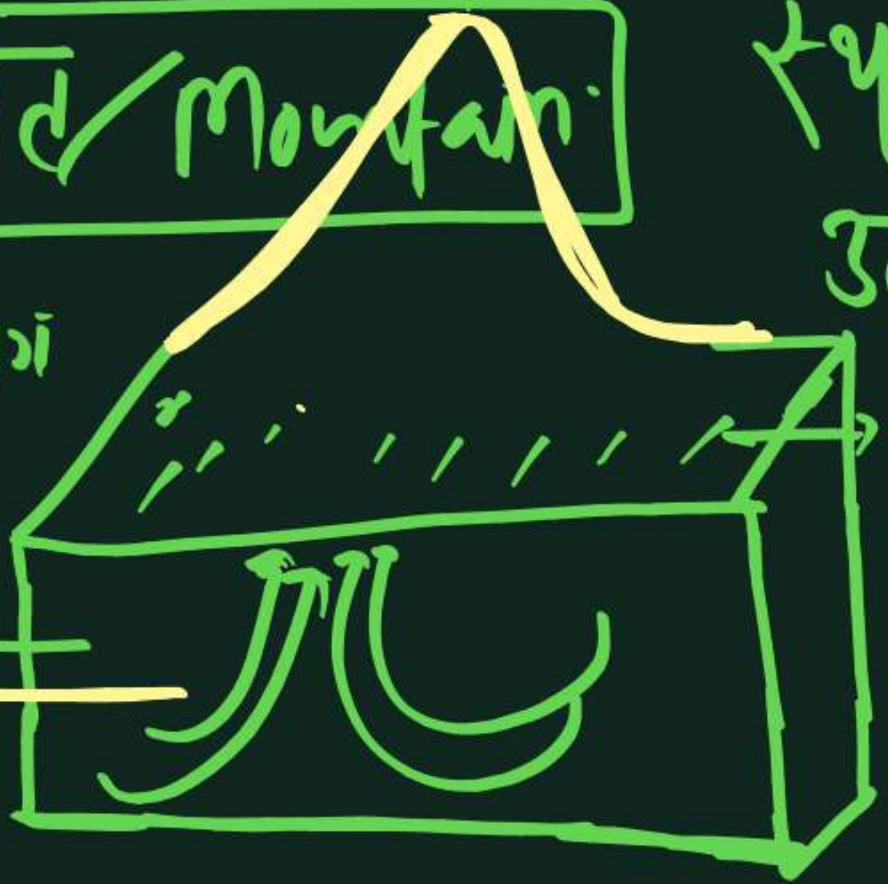
कैसे

- पर्वत / Mountains
- पठार / Plateaus
- मैदान / Plains
- घाटी / Valleys

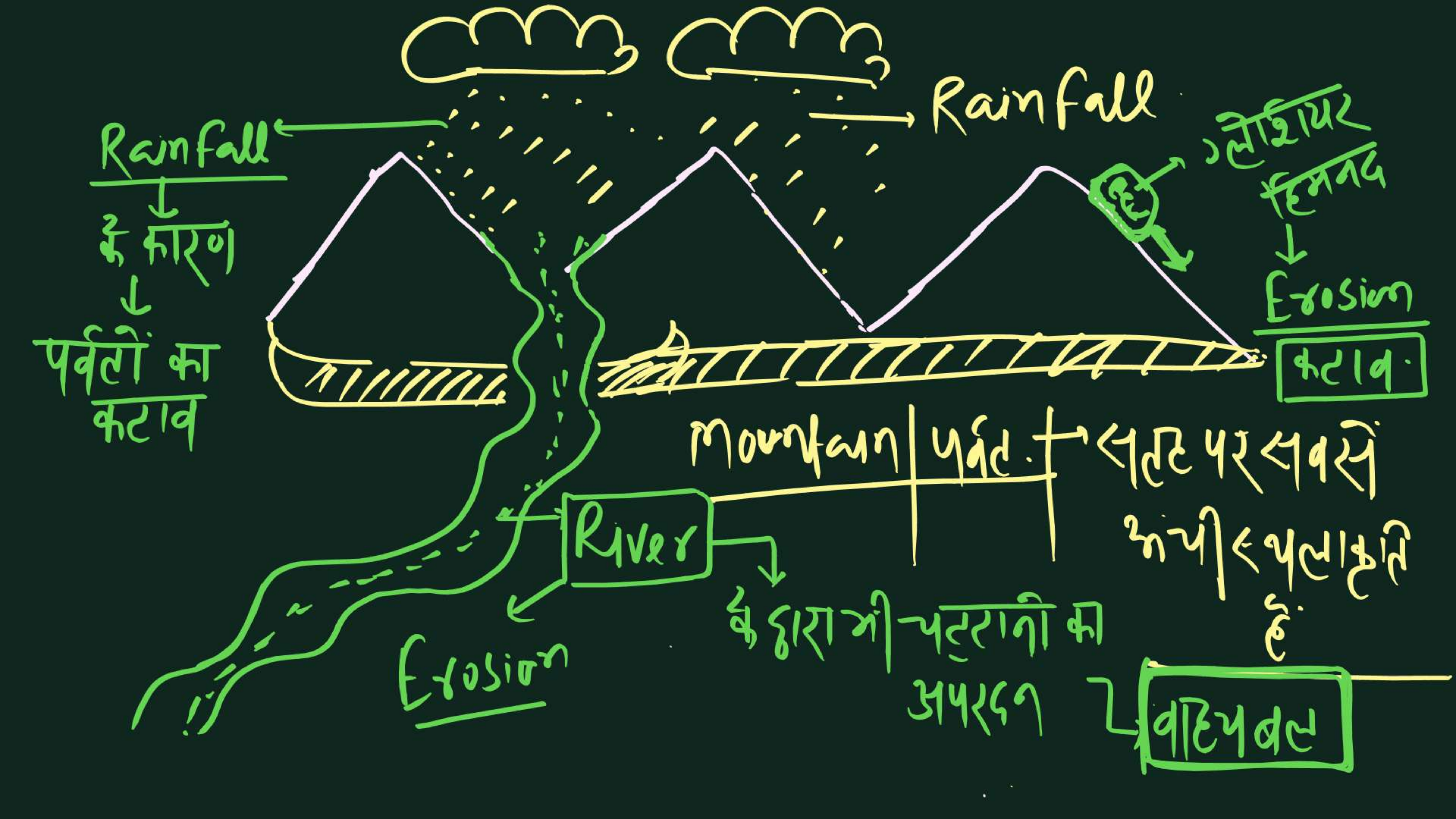
Endogenetic Force — आंतरिक बल

पर्वत / Mountain → धरातल पर ऊंची स्थलाकृति का उदाहरण है।

आंतरिक भाग Inner Parts



धरातल / Surface


Rainfall
Rainfall
के कारण
पर्वतों का कटाव
ग्लेशियर
हिमनद
Erosion
कटाव
Mountain
पर्वत
सतह पर सबसे ऊँची उठी भूआकृति है
River
Erosion
के द्वारा भी चट्टानों का अपरदन
बाह्य बल

Geomorphic Process भूआकृतिक प्रक्रम

Endogenetic Force
आंतरिक बल

Exogenetic Force
बाह्य बल

both work together.

but intensity can be different

किन्तु दोनों की तीव्रता अलग-अलग हो सकती है।

अलग-अलग कार्य ना करके एक साथ कार्य करते है।

Case 1 → आंतरिक बल > बाह्य बल

Endogenetic Force > Exogenetic Force

उत्तल | Convex

↓

Slope / ढाल → Convex उत्तलढाल का निर्माण

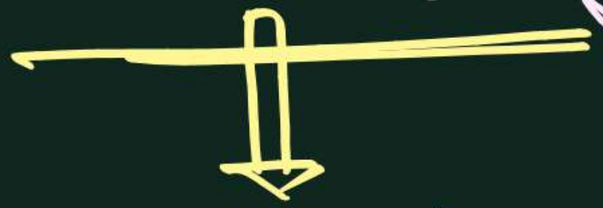
ऊँची स्थलाकृति का विकास → पर्वत, पठार

Formaling of Mountains and Plateaus

Case 2.

आंतरिक बल = वाह्य बल

Endogenetic force = Exogenetic force.



Slope/ढ़ाल → Plain
समतल ढ़ाल.

Formation of Plain Surface
समतल स्थलाकृति का निर्माण/विनाश

Case 3. आंतरिक बल < बाह्य बल

Endogenetic Force < Exogenetic Force

Slope/ढ़ाल

↓

अवतल ढ़ाल | Concave Slope |

नीची/गहराई वाली स्थलाकृति का निर्माण → Valley घाटी

Mains → पृथ्वी सतह पर उपस्थित स्थलाकृतियां आंतरिक एवं वाह्य बल का परिणाम होती है।

Land Form at the Earth's surface is the Result of Endogenetic and Exogenetic forces → 150 Words

Land Form
स्थलाकृति

① Core → किसके बारे में पूछा गया है? → Central Part of the Question

② How/कैसे → प्रश्न किसके बारे में क्या पूछा गया है → Demand of the Question

आंतरिक एवं वाह्य बल स्थलाकृति निर्माण का कारण है।

Demand

Intro → स्थलाकृति / Land form.

पृथ्वी सतह समतल सतह ना होकर असमरूप / उबड़-खाबड़ सतह का उदाहरण है जिसका प्रमुख कारण पृथ्वी सतह पर उपस्थित प्रमुख स्थलाकृतियां हैं ये स्थलाकृतियां पर्वत, पठार, मैदान, घाटी, महाद्वीप, महासागर इत्यादि हैं।

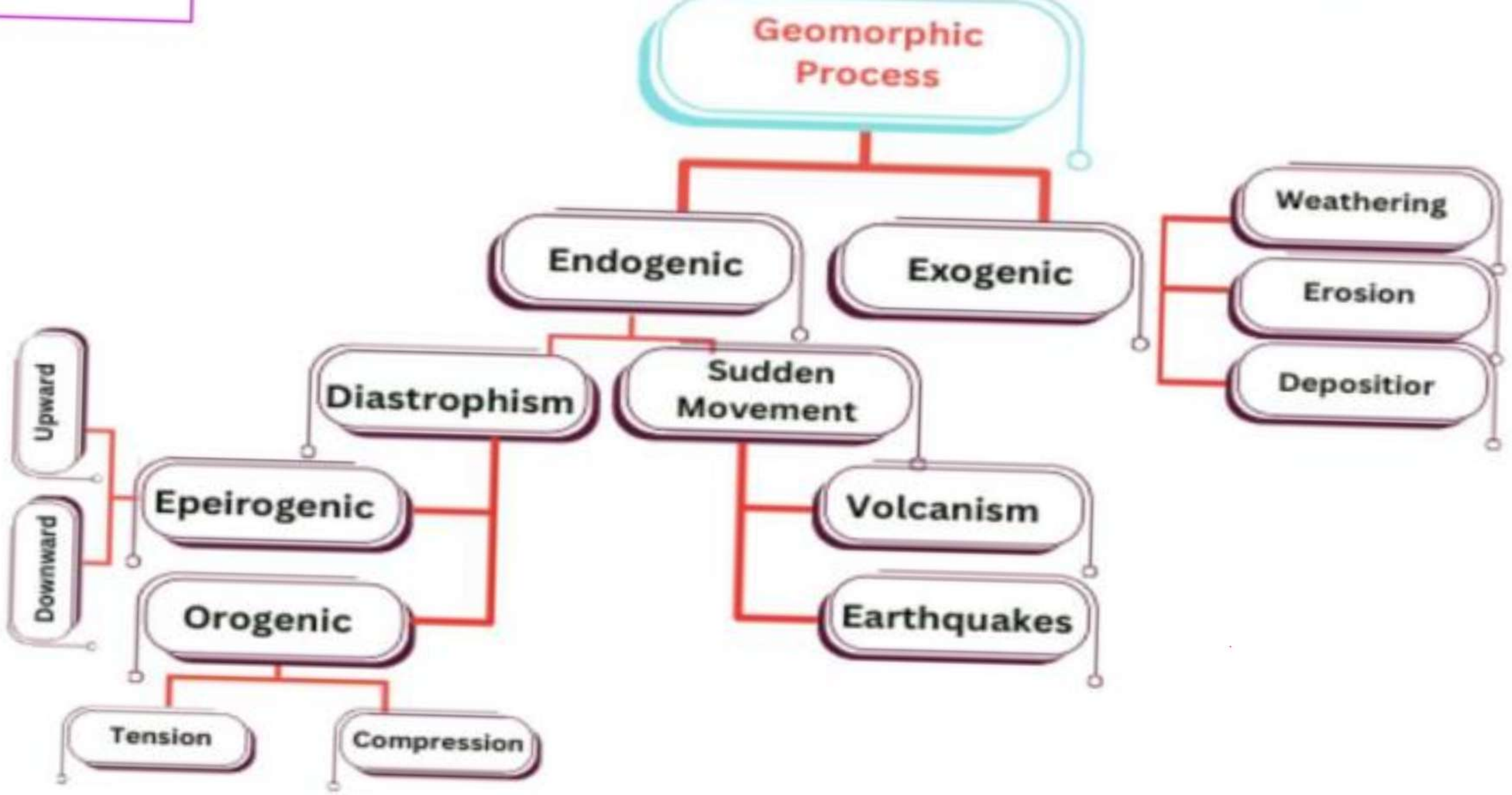
↓

सतह पर उपस्थित ये स्थलाकृतियां दो बलों आंतरिक एवं वाह्य बलों का परिणाम होती है ये बल निम्न रूपों में स्थलाकृति का निर्माण करते हैं।

Case 3 - आंतरिक बल < वाह्य बल ⟶

Conclusion →

इस प्रकार यह स्पष्ट होता है कि सतह पर उपस्थित अलग-अलग स्थलाकृतियों का विकास का कारण आंतरिक एवं वाह्य बल है अर्थात स्थलाकृतियां आंतरिक एवं वाह्य बलों का परिणाम होती है


Geomorphic Process
Endogenic
Exogenic
Weathering
Erosion
Depositior
Diastrophism
Sudden Movement
Upward
Downward
Epeirogenic
Orogenic
Volcanism
Earthquakes
Tension
Compression

Epirogenic

↓

वह बल जिसके कारण महाद्वीपों का निर्माण होता है।
The Force That is Responsible for Formation of Continents.

↓

महाद्वेशजनक

- उत्थान Upliftement
- अवतलन Submerged

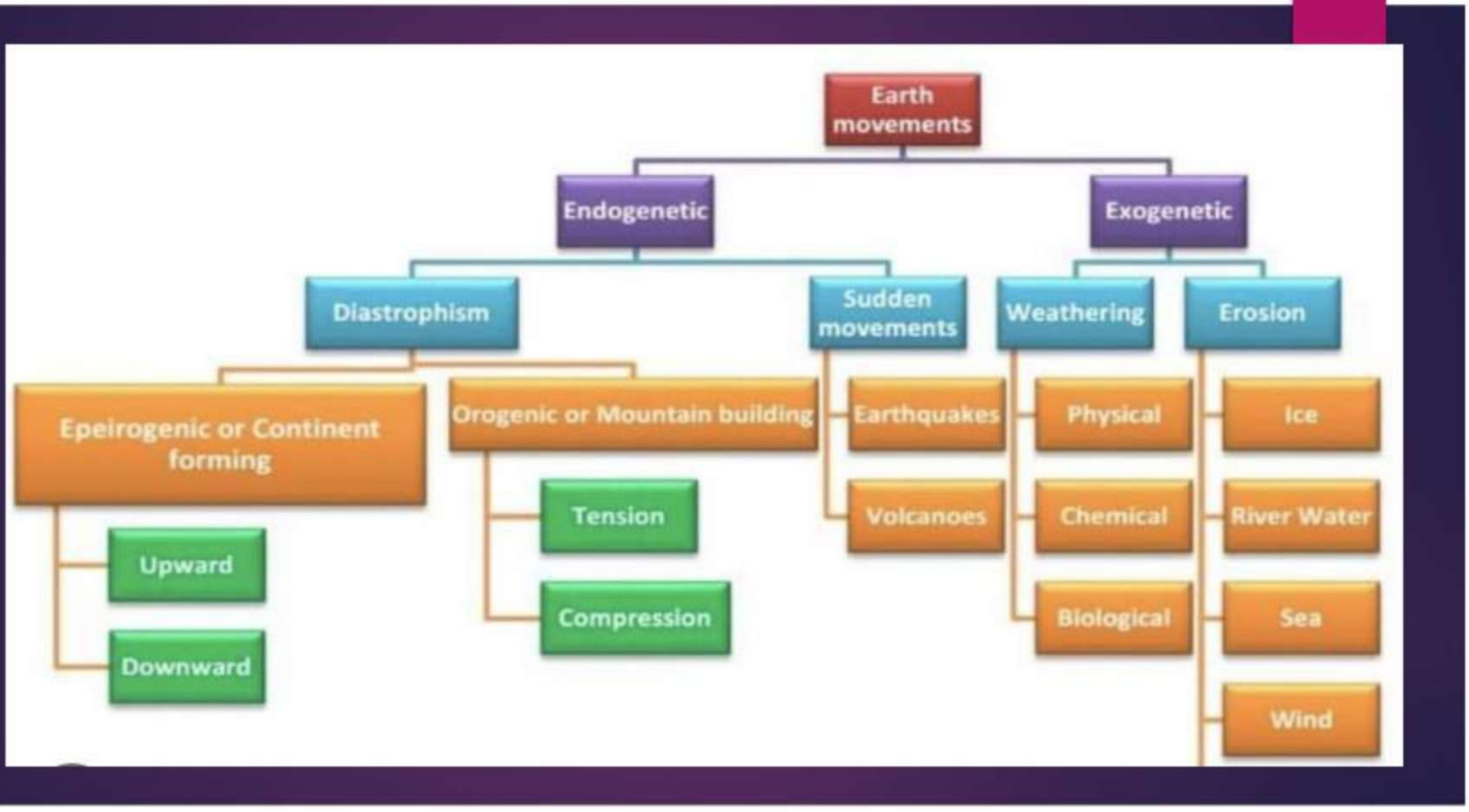
Orogenic force.

वह बल जिससे पर्वतों का निर्माण होता है। The Force That is responsible for formation of Mountain

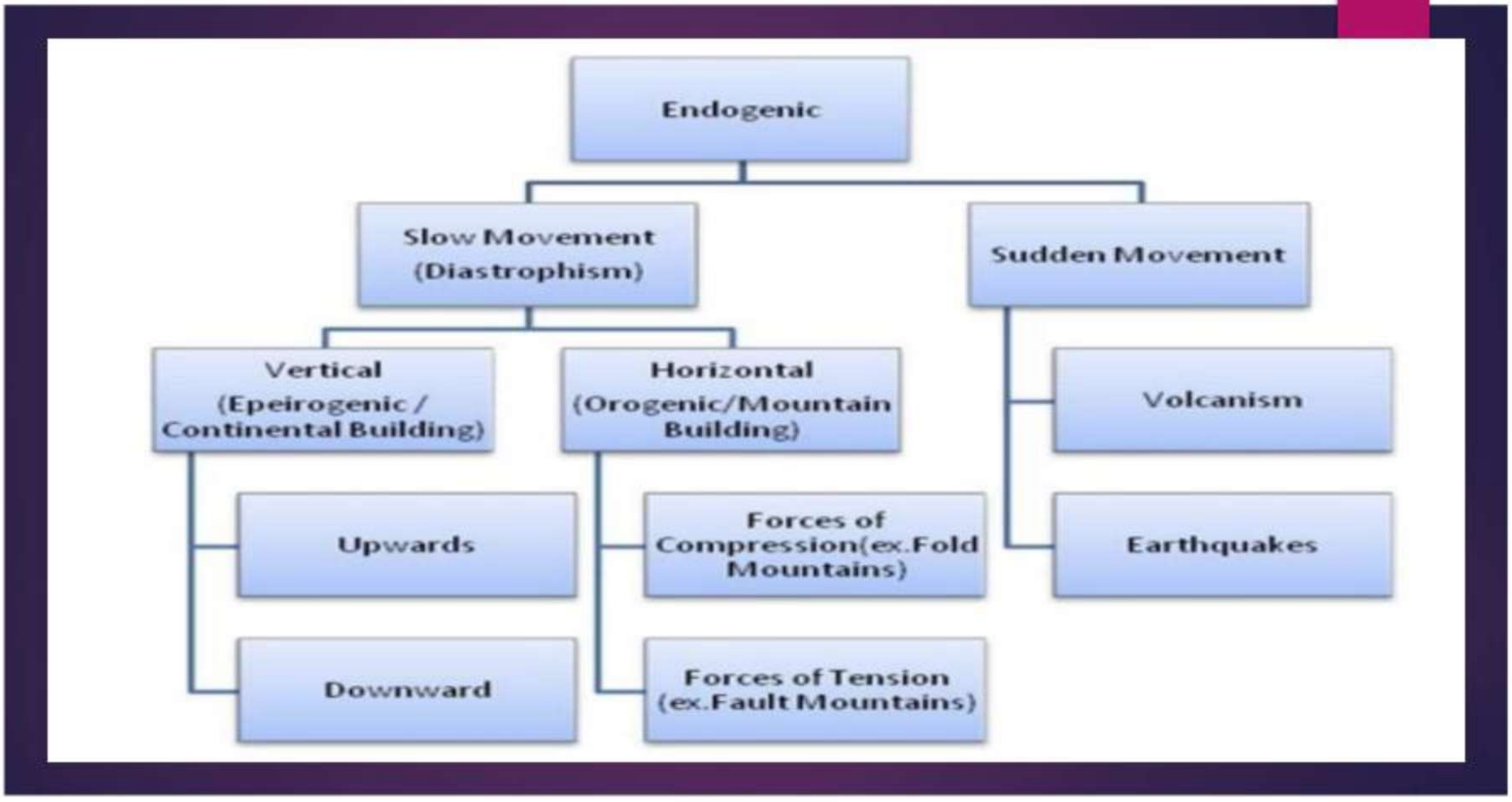
↓

पर्वत निर्माणकारी बल

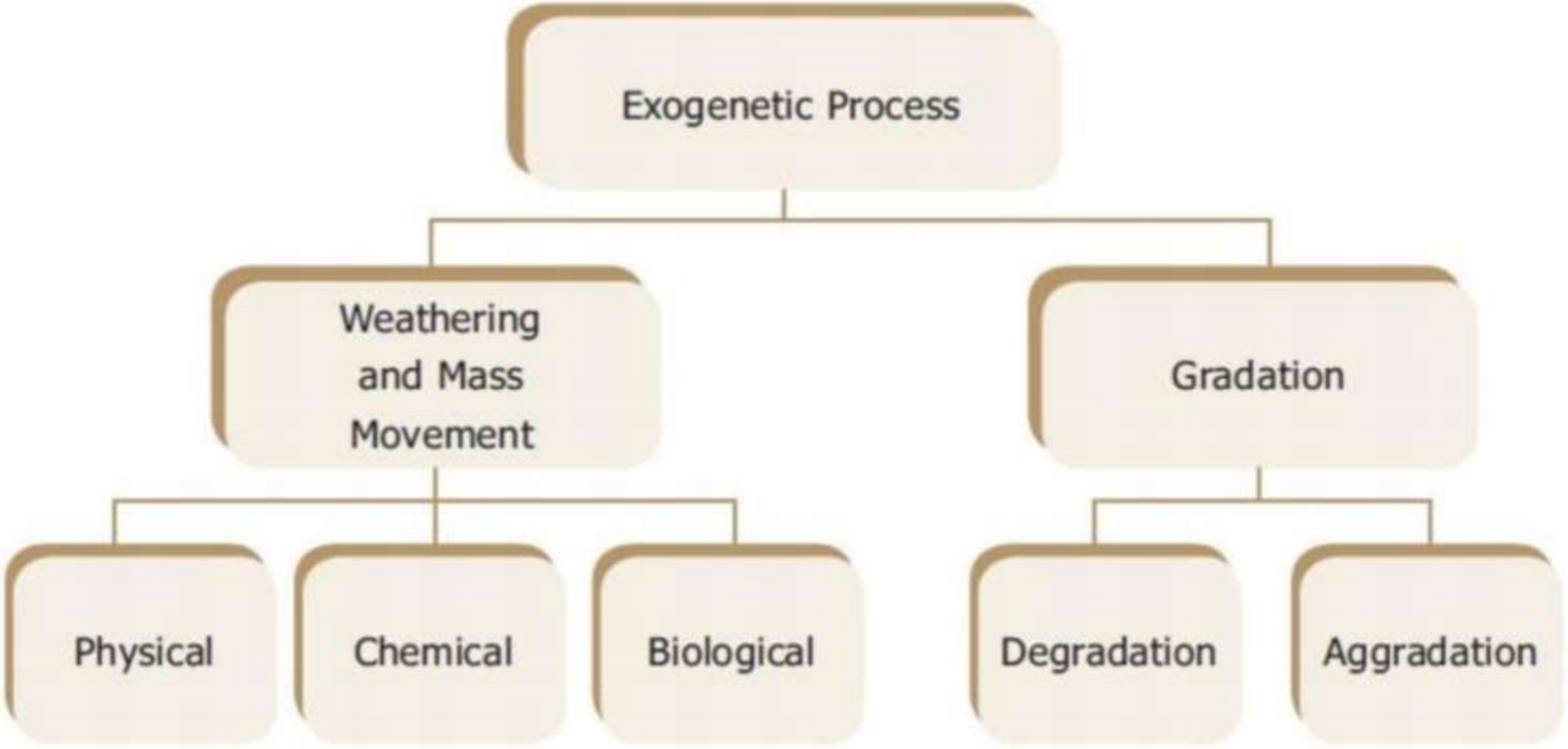
- संपीडन बल Compressive force
- तनाव मूलक बल Tensile force

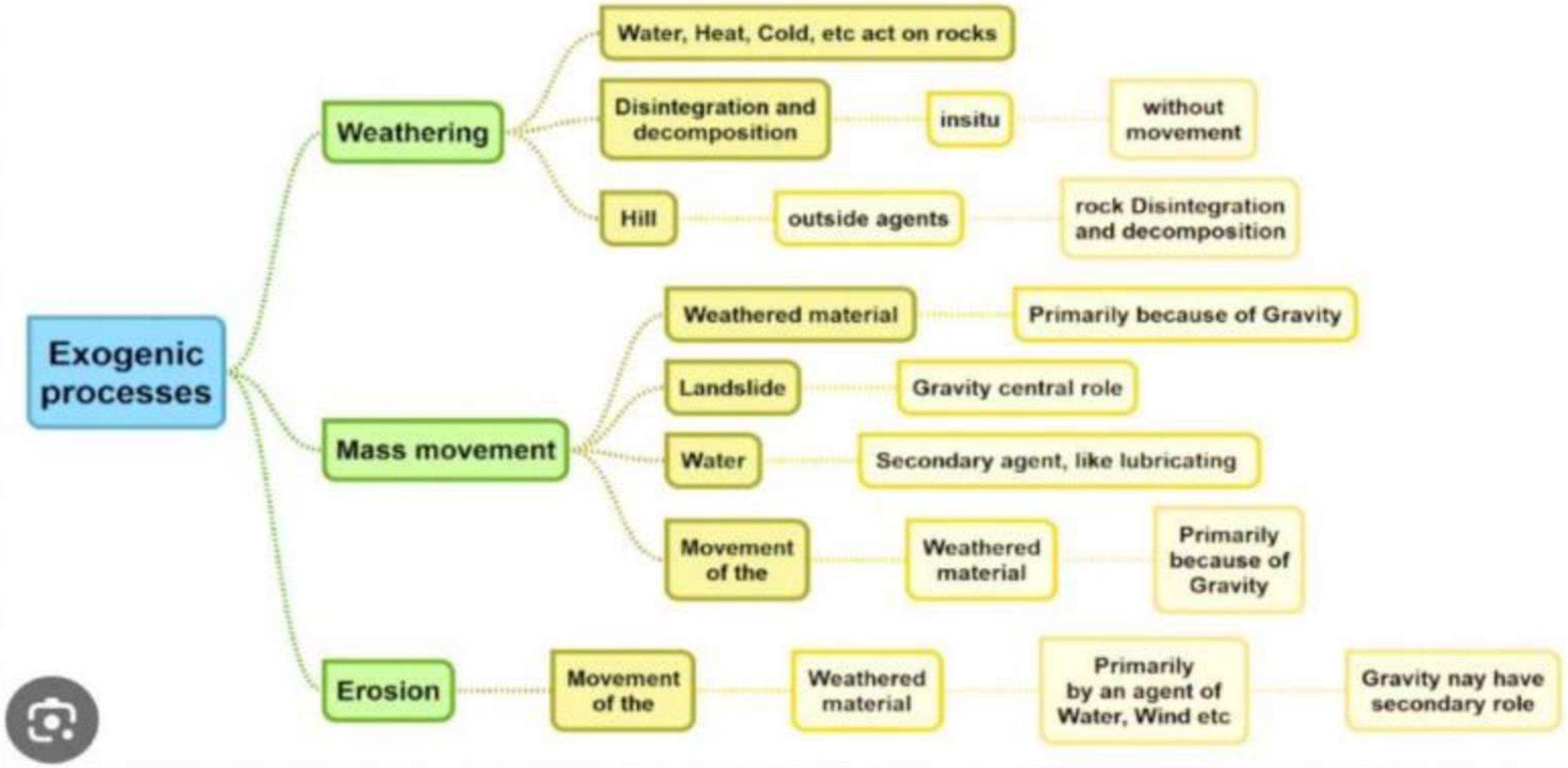

Earth movements
Endogenetic
Exogenetic
Diastrophism
Sudden movements
Weathering
Erosion
Epeirogenic or Continent forming
Orogenic or Mountain building
Earthquakes
Physical
Ice
Tension
Volcanoes
Chemical
River Water
Upward
Compression
Biological
Sea
Downward
Wind

ENDOGENETIC FORCES


Endogenic
Slow Movement (Diastrophism)
Sudden Movement
Vertical (Epeirogenic / Continental Building)
Horizontal (Orogenic/Mountain Building)
Volcanism
Upwards
Forces of Compression(ex.Fold Mountains)
Earthquakes
Downward
Forces of Tension (ex.Fault Mountains)

EXOGENETIC FORCES


Exogenetic Process
Weathering and Mass Movement
Gradation
Physical
Chemical
Biological
Degradation
Aggradation


Exogenic processes
Weathering
Water, Heat, Cold, etc act on rocks
Disintegration and decomposition
insitu
without movement
Hill
outside agents
rock Disintegration and decomposition
Mass movement
Weathered material
Primarily because of Gravity
Landslide
Gravity central role
Water
Secondary agent, like lubricating
Movement of the
Weathered material
Primarily because of Gravity
Erosion
Movement of the
Weathered material
Primarily by an agent of Water, Wind etc
Gravity nay have secondary role

ENDO GENETIC FORCES

DIASTROPHISM

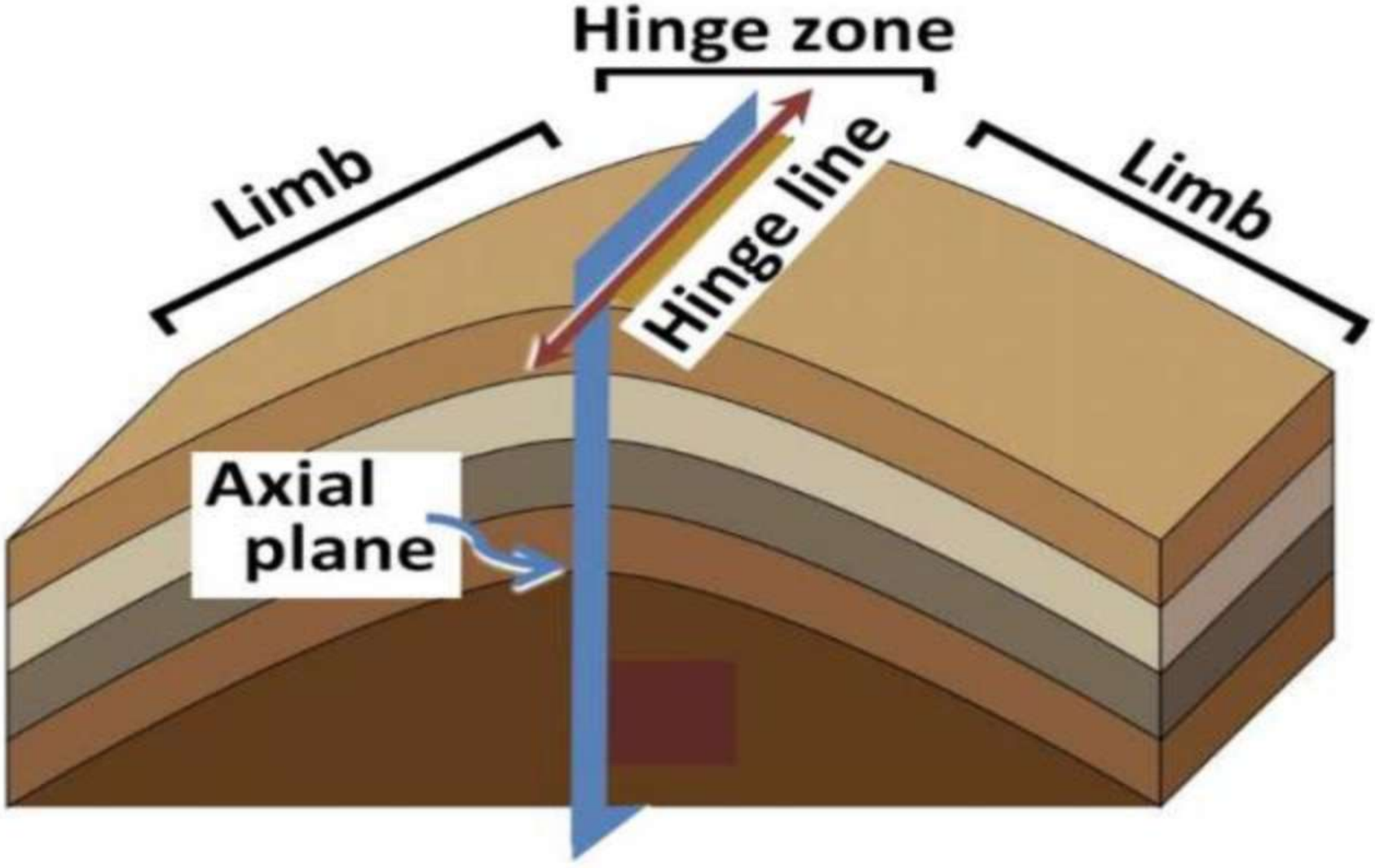
DIASTROPHISM

SUDDEN MOVEMENT

OROGENIC FORCES

COMPRESSIVE FORCES

FOLDING


Hinge zone
Limb
Hinge line
Limb
Axial
plane

TYPES OF FOLD

Symmetrical Fold

These are folds where the axial plane is vertical and both limbs incline uniformly. They are formed when compressive forces regularly act with moderate intensity

Asymmetrical Fold

They are folds where the axial plane is inclined and the limbs of the anticline dip in opposite directions. One limb is longer with a moderate inclination, while the other is shorter with a steep inclination

Overturned Fold

It is a type of fold where the axial plane is inclined and both limbs dip in the same direction but at different angles

Isoclinal Fold

These are folds where two limbs dip at equal angles in the same direction. They are formed when the compressional forces are so strong that the limbs become parallel.

Recumbent Fold

Recumbent folds are characterised by a horizontal axial plane. They are formed when compressive forces are so strong that the limbs become parallel and horizontal. Such recumbent folds are widely found in the Alps

Chevron Fold

These are folds with sharp and angular crests and troughs

Fan Fold

When the limbs of a fold are overturned to such an extent that it looks like a fan, it is called a fan fold

Open Fold

Folds, where the angle between two limbs is usually greater than 90 degrees but less than 180 degrees, are called open folds. The rock beds have the same thickness throughout the fold in such folds. They are formed due to moderate compressional force

Closed Fold

Folds, where the angle between two limbs is usually less than 90 degrees but less than 180 degrees, are called open folds.

Nappes

Nappes

These folds result from complex folding mechanisms due to intense horizontal movement and high compressional forces. They are formed from recumbent folds. The crest of recumbent folds is weak and has cracks. When there is further intense compressional force, one limb of the fold slides forward and overrides the other. Such features are called Nappes

Anticlinorium

An anticlinorium is formed when there is a series of minor anticlines and synclines within one extensive anticline

Synclinorium

A synclinorium is formed when there is a series of minor anticlines and synclines within one extensive syncline