

[9:17 AM] BREIF RECAP

[9:26 AM] MOUNTAINS OF THE WORLD:

- **Based on the formation age, there are four types of Mountains:**
- **Precambrian Mountains (540 million years ago):**
- These are the oldest mountains.
- Example Laurentian plateau (eastern Canada)
- **Caledonian Mountains approximately 400 million years ago (Old Fold Mountains):**
- These are called as **old fold mountains**
- Example 1, is Appalachian Mountain (USA), rich in iron ore and coal reserves.
- Example 2, Aravalli in India
- Example 3, Great Dividing Range of Australia
- **Hercynian Mountains (Block Mountains):**
- Formed during (300 to 250 Mya - Carboniferous period) **aka block mountain.**
- Example 1, Black Forest (on the border of Germany and France). It's the horst and graben in Rhine valley, Vosges (France) is block mountain (horst)
- Example 2, Ural mountain between Siberian and Eastern Russia
- Example 3, Altai Mountain and Altai Mountain are block mountains in China
- Example 4, Vindhya and Satpura (India)

- **Alpine Mountains (Young Fold Mountains):**
- They are **young fold mountains** (recent origin and they are still growing), they all formed in the last 65 million years in the **Tertiary period**.
- **Example 1, Mountains of Asia:**
- Pamir Knot (Kazakhstan),
- The Himalayas extend up to Arunachalm, Karakoram (trans-Himalayas), Kailash, Kunlun Shan (Tibet), Arakan Yoma, and Pegu Yoma (Myanmar)
- Hindukush (Afghanistan), Sulaiman (Pakistan), Kirthar Range (Baluchistan)
- This region is called the third pole of the earth
- **Important passes** - Khyber Pass (Between Afghanistan and Pakistan, located on Hindukush mt.), Bolan Pass (Baluchistan and Pakistan)
- **Armenian Knot -**
- Caucasus Mountain, Elburz and Zagros (Iran), Taurus (Turkey - recently in the news due to EQ)
- **Example 2, Mountains in Europe:**
- Alps Mountains (a major part of France), Mont Blanc is the highest peak of the Alps (4808 mts), and Matterhorn (erosional glacial landform, at the border of Switzerland and Italy)
- Apennines Mountain (Italy, known for limestone topography or karst topography)
- **Example 3, Africa:**
- Atlas Mountain fold mountain surrounding Morocco
- [Note: Other mountains of Africa the highest peak in Africa is Mt Kilimanjaro (Tanzania), and Mt Kenya Ruwenzori (border between Uganda and DRC) - all three are covered with snow throughout the year despite they are situated near the Equator it is due to their altitude]
- **Example 4, North America:**
- Rocky Mountains, Cascade Mountains, Coast Mountains,
- Alaska Range (Highest peak is Mt McKinley aka Mt Denali)
- Cascade extended into Mexico is known as the Sierra Mountains (Sierra Madre and Sierra Nevada)

- **Example 5, South America:**
- Andes Mountain In South America and the **highest peak is Aconcagua** (Argentina).
- There are 7 countries through which the Andes pass: Venezuela, Colombia, Ecuador, Peru, Bolivia, Chile, and Argentina.
- The Andes is the **longest mountain range** on the Continent and the **2nd highest mountain range** in the world.

- Example 6, Newzealand:
- Southern Alps, important peak Aoraki aka Mount Cook.



[10:22 AM] IMPORTANT VOLCANOES OF THE WORLD:

- **Types of Volcanos:**
- **Based on their occurrence:**
- **Active-** erupted at least once in the human history
- **Dormant** (Not erupted in human history) but has a link with a magma chamber
- **Extinct** – cut-off from the Magma chamber.
- **Based on the Magama:**
- Shield Volcano - formed by basaltic magma, a wide volcano
- Composite or strato volcano - formed by acidic magma (andesitic), it is explosive
- **Example 1, North America:**
- Mt St Halen's (the most disastrous volcano in the USA, active volcano)
- Popocatepetl - Mexico, erupted in 2022.
- **Example 2, Hawaii Island:**
- Mona Loa (erupted recently, largest volcano by area in the world) and Mauna Kea (highest volcano by height), Kilauea (erupted recently) - all three are shield volcanoes and are active volcanoes
- **Example 3, South America:**
- The Andes has the Highest active volcano in the world **Ojos del Salado**
- Cotopaxi, Chimborazo, and Sangay (erupted in 2021) are active volcanoes in Ecuador
- **Examples 4, Africa:**
- Ruwenzori, Mount Nyiragongo (DRC, erupted in 2021, extremely fluid and watery magma)
- **Example 5, Europe:**
- Mt Vesuvius, Mt Stromboli (very violent volcano), and Mt Etna in Italy near Sicily island (all three are active volcanoes)
- Mt Cumbre vieja (la Palma) canaries island of Spain (Dec 2021)

- **Example 6, Aisa:**
- **Indonesia** - Krakatoa (volcano between Java and Sumatra) erupted in 1884, Mt Merapi (Java, erupted in 2020), Mt Sinabung (the most active volcano, in Sumatra), Mt Semeru (the highest volcano in Indonesia, in Java, erupted in 2021, also UNESCO biosphere reserve)
- **Philippines** - Taal volcano (huge crater, the active volcano erupted in 2020)
- **Japan** - Mt Fuji (dormant, Japan's highest volcano), Mt Aso (**Kyushu island**, erupted recently in October, Caldera)
- **Russia** - Mt Bezmyanni (erupted in 2022)
- **Example 7, Tongo Island:**
Hunga Tonga Volcano, recently erupted.



[10:18 AM] PLATEAUS AND PLAINS OF THE WORLD:

- **North America:**

- Great Plains - it is known for wheat cultivation, prairies (temperate grasslands)
- Columbia Plateau and Colorado Plateau - intermontane plateau
- Death Valley - the lowest point of N. America, has the highest recorded temperature on earth.

- **South America:**

- Guiana islands
- Brazilian highlands - known for coffee plantation
- Bolivian Plateau - a part of it called Altiplano (2nd largest plateau in the world), it covers 4 countries Chile, Bolivia, and Argentina.
- Plains - Llanos (savannah grasslands of Venezuela), Selvas (rainforest of Brazil), Matogrosso (savannah grassland Brazil), Gran Chaco and Pampas (temperate grasslands of Argentina)

- **Africa:**

- Katanga Plateau - famous for the deposits of copper and diamond
- Drakensberg - South Africa
- Ethiopian highlands - famous for coffee cultivation

- **Europe:**

- North European plains

- **Asia:**

- The upper part of Turkey - Anatolia Plateau (aka Asia Minor)
- Potwar Plateau - Border of India and Paksitan
- Tibetan Plateau - highest (avg height 4500 mt) and largest plateau in the world - aka **roof of the world**.
- Iraq - Mesopotamia plains
- China - Manchuria plains

- **Australia:**

- Kimberley Plateau
- Downs - temperate grasslands of Australia - rivers flowing through this region are the Darling and Murray and these are aka Darling downs
- Uluru rock - largest sandstone monolith in the world.

[11:42 AM] DESERTS:

- **North America:**
- Mojave Desert (near California, death valley is inside this), Sonoran or Arizona desert
- **South America:**
- Atacama desert (driest desert in the world), Patagonian Desert (cold desert, Chile and Argentina),
- **Africa:**
- Namib desert (largest sand dune in the world), Kalahari desert (famous for bushman tribe), Sahara desert (largest desert in the world), Sahel region (semi-arid region below Sahara desert, an initiative of the great green wall in this region when it will complete it will be the longest living structure in the world),
- Part of Sahara Desert: Erg (Algeria), Libyan desert, western and eastern desert along the Nile river, and Nubian desert
- **Australia:**
- Great Victoria Desert, Gibson Desert, Great Sandy Desert, Simpson Desert, Tanami Desert
- **Asia:**
- Rub al Khali in Arabian Peninsula, Dusht-e Kavir and Dusht-e Lut are salt deserts (Iran), and Karakum desert is a cold desert in Turkmenistan, Thar desert in India, Taklamakan desert, the Gobi Desert in China

[12:00 PM] RIVERS OF THE WORLD:

- **North America:**

- Alaska - Yukon River draining into Bering Sea (it is known for gold placer deposits)
- Columbia River (drains into the Pacific Ocean) and Colorado River (Drains into the Gulf of California, Grand Canyon)
- Mackenzie River (drains into the Arctic Ocean)
- Great lakes form a river that drains into the Atlantic Ocean - St. Lawrence River (Niagara waterfalls)
- Hudson River - drains into the Atlantic Ocean
- Mississippi River - drains into the Gulf of Mexico (forms bird's foot delta)
- Rio Grande - forms the boundary between USA and Mexico

- **South America:**

- Orinoco River - Venezuela, drains into the Atlantic ocean
- Amazon River - covers half of S.America by Area, originated from the Andes, largest volume, 2nd longest river in the world after Nile River. it is also the widest river in the world (40km widest stretch)
- Negro River - the largest tributary of the Amazon River
- Parana River (Brazil), Paraguay River, and Uruguay River - combine to form the La Plata River
- Iguazu Waterfalls is on the Parana River

NEXT CLASS TOPICS - CONTINUATION OF WORLD RIVERS