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WELCOME TO VIRTUAL CLASS-IX

SUBJECT : (GEOGRAPHY)
CHAPTER NUMBER: 4
CHAPTER NAME : CLIMATE

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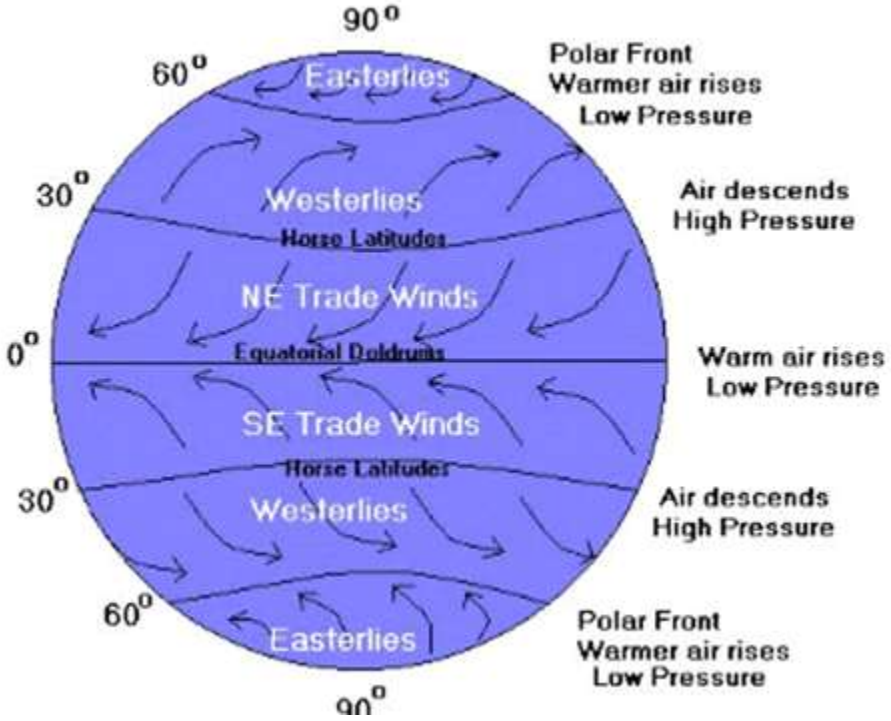
CLIMATIC CONDITIONS

- Ocean Currents Along with onshore winds, the ocean currents (warm or cold) affect the climate of coastal areas. For example, cold onshore currents bring coolness in coastal areas.

- Relief Features High mountains stop cold or hot winds from reaching a location..It can also cause rain or snow if the place is on the windward side of the mountains. The leeward side of the mountains are.



Pressure and wind

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Factors Affecting India's Climatic

Latitude

The Tropic of Cancer (23°3 CV N) divides the country into the tropical zone (South of this line) and the sub-tropical zone (North of this line). The line runs from the.Rann of Kuchchh (West) to Mizoram (East). All the remaining area, North of Tropic, lies in sub-tropics. So, India's climate has characteristics of tropical as well as sub-tropical climates.

Altitude

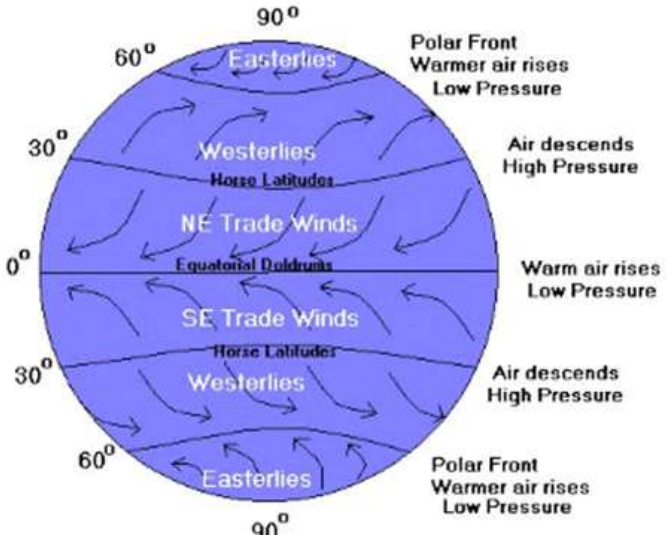
Mountains- in the North of India have an average elevation of about 6000 m, whereas on the coastal areas as well as islands, maximum elevation is about 30 m.

The Indian sub-continent experiences milder winters as compared to Central Asia because of the Himalayas which prevent the cold winds from entering the sub-continent.

Pressure and Winds

The following atmospheric conditions govern the climate and associated weather conditions in In

- Pressure and surface winds
- Upper air circulation
- Western cyclonic disturbances and tropical cyclones



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- **Types of wind:-**
- **Premanent wind(moves in one direction)**
- **Seasonal wind (according to seasons, Example – monsoon season)**
- **Local wind (depending on weather ondition)**

- **Coriolis f**orce An apparent force that as a result of the Earth's rotation, deflects moving objects like air currents to the right in the Northern Hemisphere and to the left in the Southern hemisphere. This is known as Ferrel's law. This law states that a wind in any direction tends to deflect towards right (West to East) in the Northern Hemisphere and to the left in the Southern Hemisphere with a force that is directly proportional to the mass of the wind in question, its velocity, the sine of the latitude and the angular velocity of the Earth's rotation.
- **Jet stream** These are a narrow belt of high altitude (above 12,000 m) westerly winds'in the troposphere. Their speed varies from about 110 km/h in summer to about 184 km/h in winter. A number of separate jet streams have been identified. The most constant are the mid-latitude and the subtropical jet stream.

THANKING YOU

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