

Terrestrial Biomes

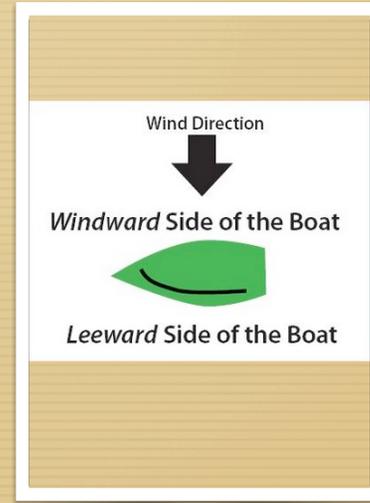
Biome

- ~ Biomes are climatically and geographically defined as similar climatic conditions on the Earth, such as communities of plants, animals, and soil organisms, and are often referred to as ecosystems. Some parts of the earth have more or less the same kind of abiotic and biotic factors spread over a large area, creating a typical ecosystem over that area.

Climate

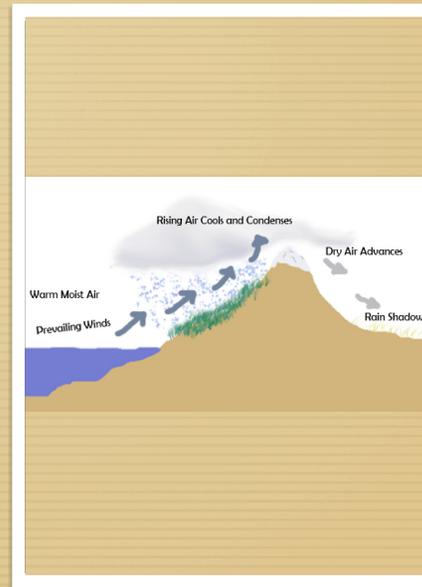
- ~ The climate of a location is affected by its latitude, terrain, and altitude, as well as nearby water bodies and their currents. Climates can be classified according to the average and the typical ranges of different variables, most commonly temperature and precipitation.

Windward and Leeward



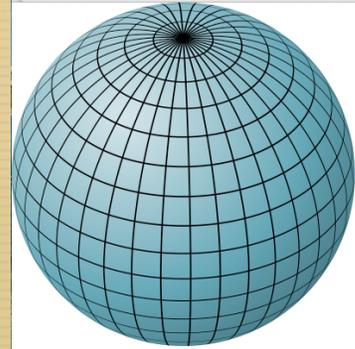
Rainshadow

A rain shadow is a dry area on the leeward (back side) of a mountainous area. The mountains block the passage of rain-producing weather systems casting a "shadow" of dryness behind them.



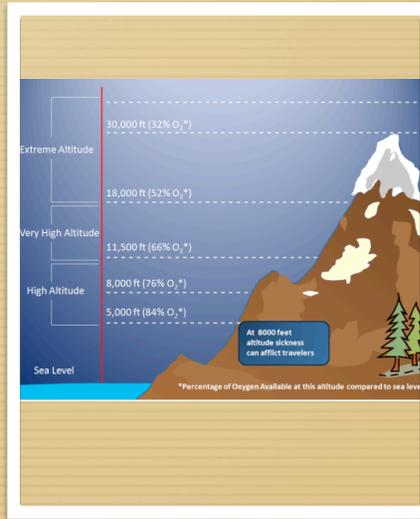
Latitude

In geography, latitude is a geographic coordinate that specifies the north-south position of a point on the Earth's surface. Lines of constant latitude, or parallels, run east-west as circles parallel to the equator.



Altitude

Altitude or height is defined based on the context in which it is used (aviation, geometry, geographical survey, sport, and more). The term altitude is commonly used to mean the height above sea level of a location

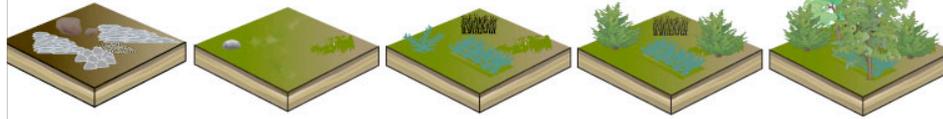


Primary Succession



- ~ Primary succession is one of two types of biological and ecological succession of plant life, occurring in an environment in which new substrate devoid of vegetation and usually lacking soil, such as a lava flow or area left from retreated glacier, is deposited. In other words, it is the gradual growth of an ecosystem over a longer period.

Primary Succession Following Glacial Retreat



TIME

Bare rock left after the retreat of a glacier

In time mosses and lichens start to colonise the rock

As they die organic matter is added to weathered rock particles making simple soils

As the soils develop grasses and small herbaceous plants start to grow

More organic matter is added and roots of plants aid break up of rock material

Deeper soils hold more water. Small shrubs colonise these better soils

Nutrient availability increases
More root action

Eventually trees establish leading to the development of a climax community on mature soils

Secondary Succession

- ~ As opposed to primary succession, secondary succession is a process started by an event (e.g. forest fire, harvesting, hurricane) that reduces an already established ecosystem to a smaller population of species. Secondary succession occurs on preexisting soil.

Secondary Succession

- ~ Simply put, secondary succession is the succession that occurs after the initial succession has been disrupted and some plants and animals still exist. It is usually *faster* than primary succession as:
- ~ Soil is already present, so there is no need for pioneer species;
- ~ Seeds, roots and underground vegetative organs of plants may still survive in the soil.

Tropical

- ~ "Tropical" is sometimes used in a general sense for a tropical climate to mean warm to hot and moist year-round, often with the sense of lush vegetation.

Temperate

- ~ In geography, temperate latitudes of the globe lie between the tropics and the polar regions. The changes in these regions between summer and winter are *generally relatively moderate*, rather than extreme hot or cold.
- ~ However, in certain areas, such as Asia and central North America, the variations between summer and winter can be extreme *because these areas are far away from the sea*, causing them to have a continental climate. In regions traditionally considered tropical, localities at high altitudes (*e.g. parts of the Andes*) may have a temperate climate.

Desert

- ~ An area that features this climate usually experiences less than 250 mm (*10 inches*) per year of precipitation and in some years may experience no precipitation at all. In some instances, an area may experience more than 250 mm of precipitation annually, but is considered a desert climate because the region loses more water via evapotranspiration than falls as precipitation (*Tucson, Arizona is an examples of this*).

Polar

- ~ Polar region receive less intensive solar radiation because the sun's energy arrives at an oblique angle, spreading over a larger area, and also travels a longer distance through the Earth's atmosphere in which it may be absorbed, scattered or reflected, which is the same thing that causes winters to be colder than the rest of the year in temperate areas.