

APES- Terrestrial Biomes Review

Vocabulary

Understand and be able to apply each of these terms.

1. Biome: *climatically and geographically defined, similar climatic conditions on the Earth.*
2. Climate: *Can be classified by its temperature. Vary depends on latitude, altitude, it can be affected.*
3. Rainshadow: *dry area on the leeward of a mountain area, block the passage of rain-producing weather.*
4. Windward: *the side facing the wind.*
5. Leeward: *side sheltered or away from the wind.*
6. Latitude: *coordinate, the north-south position of a point on the Earth's surface.*
7. Altitude: *defined based on the context in which it is used, commonly used to mean the height above sea level of a location.*
8. Primary Succession: *one of two types of biological and ecological succession of plant life, gradual growth of an ecosystem over a longer period.*
9. Secondary Succession: *process started by an event, reduces an already established ecosystem to a smaller population of species.*
10. Tropical: *warm to hot and moist year- round, often with the sense of lush vegetation.*
11. Temperate: *It can be rather extreme hot or cold.*
12. Desert: *Climate usually is 250 Mm/ Per year. the region loses more water via evapotranspiration than falls as precipitation*
13. Polar: *Receive less intensive solar radiation because the sun's energy arrives at an oblique angle. Usually cold.*

Critical Thinking

Read, analyze, and give complete answers to these questions.

1. Describe the **rainshadow effect** and explain how it can alter the climate of the **windward** and **leeward** sides of a mountain range.
The mountains block the passage of rain-producing weather systems casting a shadow of dryness behind them.
2. What effect does living near a large ocean or lake have on average air temperatures? *Why?- Explain.*
It has air temperatures because they are far from dry areas. It makes the air cooler.
3. Complete this summary chart of the land-based ecosystems.

	Equatorial, Polar, or Mid-Latitude?	Precipitation (High, Low, Seasonal)	Average Temperature (High, Low, Seasonal)	Example Animal and Plant Adaptations
Tropical Desert	<i>Mid-latitude</i>	<i>LOW</i>	<i>HIGH</i>	<i>store water in their stems or leaves. Animals: obtain all its moisture from the plants that make up its food supply.</i>
Temperate Desert	<i>Mid-Latitude</i>	<i>LOW</i>	<i>HIGH</i>	<i>spiny leaves, to maintain animals away. animals: seek shelter during the hottest part of the day, either in burrows or in the shade of plants.</i>
Polar Desert	<i>Polar</i>	<i>LOW</i>	<i>LOW</i>	<i>heavy salt concentrations are the Great Salt Lake of the western United States. lizards, all dig burrows to wait out the cold weather.</i>
Tropical Grasslands	<i>equatorial</i>	<i>LOW</i>	<i>HIGH</i>	<i>trees have thick bark to resist fire. mammals tend to reproduce during the hospitable wet season, Because of plenty food.</i>
Temperate Grasslands	<i>equatorial</i>	<i>Sesonal</i>	<i>season</i>	<i>prairie trees have thick bark to resist fire Birds: eating the various seeds and grasses</i>
Polar Grasslands	<i>POLAR</i>	<i>sesonal</i>	<i>LOW</i>	<i>Animals: spend only the summer months here to breed and raise their offspring Plants: need to have hallow root systems to survive</i>
Chaparral	<i>Mid- Latitude</i>	<i>LOW</i>	<i>SEASON</i>	<i>Kangaroo rats do not drink, uses water by producing urine. Plants have awaxy substance that covers them and holds moisture in.</i>
Tropical Rainforest	<i>equatorial</i>	<i>HIGH</i>	<i>SEASON</i>	<i>plants grow on other plants to reach the sunlight. Animals: eating a specific plant or animal that few others eat.</i>
Deciduous Forest	<i>Mid- Latitude</i>	<i>HIGH</i>	<i>SEASON</i>	<i>trees have thick bark to protect against cold winters. Animals: Migration and hibernation</i>
Coniferous Forest (Taiga)	<i>equatorial</i>	<i>HIGH</i>	<i>LOW</i>	<i>trees have needle-like leaves that keep their green color all year long. Animals: use camouflagde to hide from predators</i>
Temperate Rainforest	<i>equatorial</i>	<i>high</i>	<i>Season</i>	<i>trees can grow very tall due to amount of precipitation. animals spend much of the growing season preparing for winter: chipmunks, gather nuts and seeds</i>
Mountains	<i>equatorial</i>	<i>LOW</i>	<i>LOW</i>	<i>While in the winter, stems allow food storage so plants can begin immediate growth in the spring. Animals: hibernate to save energy</i>

4. For each category of biomes, give a *major human impact* and *list 2 endangered species*:

- a. Deserts – *Major Human Impact, is mining, residential, he limited water supplies for agricultural use elsewhere.
2 Endangered: The Ocelot, The Gila Monster.*
- b. Grasslands –
*Major Impact: Land turned into farmlands.
2 species: elephant, black-footed ferret.*

- c. Forests – *Major Impact: deforestation*
2 species: Red-cockaded woodpecker, Northern spotted owl.
- d. Mountains – *Major Impact: particularly destructive form of surface mining.*
2 species: Lesser Prairie-Chicken, Parachute Penstemon.

Use the data provided to construct a climatograph. Remember: Temperature should be displayed as a line graph and precipitation as a bar graph.

Month	Precipitation (cm)	Temperature (C)
January	10	35
February	3	37
March	2	39
April	5	40
May	13	42
June	9	44
July	2	45
August	2	44
September	2	42
October	8	40
November	18	37
December	7	35

Identify the biome in the climatogram above- what evidence supports your answer. *Give specific observations from your graph to justify this answer.*

The Biome in the climatogram, it's on November. On the graph it shows that there's a higher precipitation and temperature. November has a 18 cm, and in temperature is 37 Celsius.