MOUNTAIN BIOME - INCLUDES TWO SMALLER BIOMES

ALPINE BIOME - The Alpine biome is found in Utah's highest elevations, above 10,000 ft, where snow and frozen ground are found almost all year long. The weather is windy and there is much precipitation, though most of it in the form of snow. The surface terrain is very rocky so plants can not have long root systems.

Plants adaptations to the alpine:

Low to the ground - this protects them from wind and the loss of water through evaporation.

Plants are able to grow in rocky or sandy soil.

Furry leaves - help protect them from cold temperatures.

FOREST BIOME – The Forest biome surface terrain has rich soil and is densely inhabited by plants and animals. There is a temperature fluctuation depending on elevation, different plants are found at different elevations. Generally, there is enough rain or snow throughout the seasons to sustain all life.

Plant adaptations to the forest:

Evergreens like pine, spruce and fir live in cooler temperatures - needles have waxy coating and a small surface area to prevent water loss.

Deciduous trees are tall and have leaves pointed vertically rather than flat to avoid direct sunlight during the day when temperatures are high.

Shorter plants live in the shade of taller plants and have large leaves to capture sunlight.

DESERT BIOME - Deserts are very hot during the day and cool at night. The land is dry, has sandy soil, and receives little precipitation. The surface terrain is sandy with little nutrients in the sand for plant growth.

Plants adaptations to the desert:

Furry leaves - helps minimize water loss

Small, waxy, and thick leaves - helps minimize water loss

Spines - minimize water loss and protect the plant from animals

Swollen stems and deep taproots - help store water

WETLAND BIOME - Wetlands are transitional areas between water and land. The land has slow-moving or standing water most of the year. In Utah, these may be salty wetlands or fresh water wetlands. Plants need to cope with the changing water levels. The surface terrain is soil that is water saturated. The weather is seasonal with a range in temperatures and precipitation.

Plant adaptations to the wetland:

Spongy plant tissue that helps plants survive in water by having many air spaces that help with buoyancy.

Strong stems or floating leaves for a watery environment.

Shallow root system or roots that grow above ground since water is adequate.

Seeds survive for long times in flood situations.