

**Utah
Environments:
Wetlands,
Forests, and
Deserts**

Utah's Three Environments

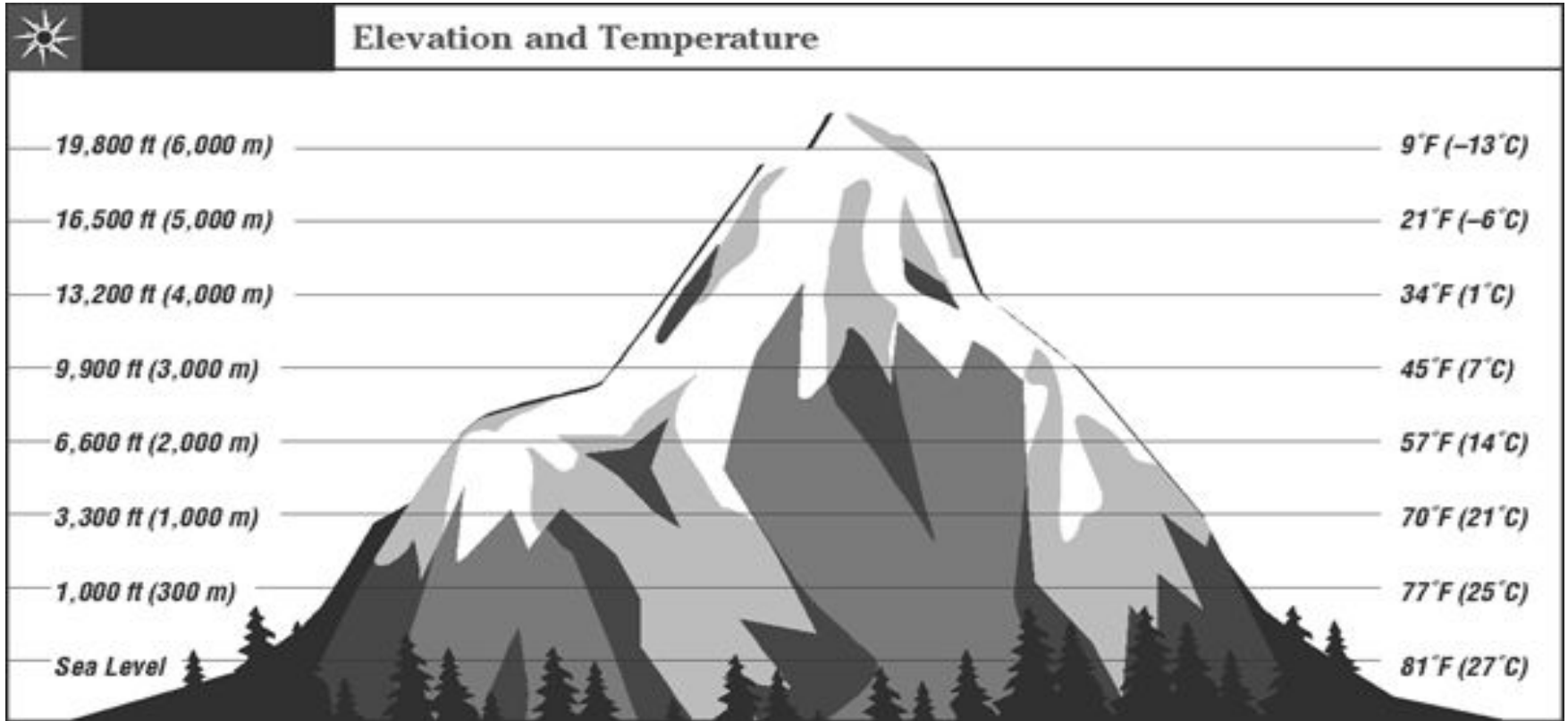
Elevation: **The distance above sea level.**

Precipitation: **Rain, Snow, Sleet, Hail**

Temperature: **How hot or cold something is**

- Higher the elevation, more the precipitation, colder the temperature.
- Lower the elevation, less the precipitation, warmer the temperature.

Utah's Three Environments



Utah's Three Environments

	Wetland	Forest	Desert
Elevation	<ul style="list-style-type: none">• Anywhere	<ul style="list-style-type: none">• HIGH	<ul style="list-style-type: none">• Low
Temperature	<ul style="list-style-type: none">• Cold/Warm	<ul style="list-style-type: none">• Cold	<ul style="list-style-type: none">• Warm-DRY!
Precipitation	<ul style="list-style-type: none">• Lots/Little	<ul style="list-style-type: none">• LOTS!	<ul style="list-style-type: none">• LITTLE!
Characteristics	<ul style="list-style-type: none">• Very wet• Water, water, water• Green, ponds, and trees	<ul style="list-style-type: none">• Lots of trees• Coniferous Trees• Deciduous Trees	<ul style="list-style-type: none">• Very Dry• Hot or Cold• No clouds• Sandy
Examples	<ul style="list-style-type: none">• Great Salt Lake	<ul style="list-style-type: none">• Uintah National Forest	<ul style="list-style-type: none">• Sevier Desert

Wetlands: Characteristics

Very wet

Has Standing water

Can be found at the edge of a forest



Wetlands: Animals

Wetlands are home to a large variety of animals including:

Alligators, lizards, frogs, birds, ducks, swans, fish, salamanders



Wetlands: Plants

Plants:

Wetland plants are adapted to survive in soil without oxygen and to cope with flooding cycles.

EXAMPLES: Duckweed, Cattails, Bulrush, Cottonwood, Willows, Grass, Lily Pads, Bushes, Moss, Trees



Wetlands: Purpose

Purpose 1: Home for Wildlife

- wetlands are important spawning and nursery areas for commercial and recreational fish and shellfish industries (remember 75%), as well as feeding, nesting and shelter zones for fish and migrant birds.

Wetlands: Purpose

Purpose 2: Flood Control

- Water flowing into wetlands is spread out and slowed, making it less destructive. Plant roots also bind soil to help it stay in place.
- By causing fast-moving stream water to slow down and spread out, wetlands act as buffers to protect inland life and land.
- Wetlands store rain and surface water like giant sponges, slowly releasing them to downstream habitats and aquifers.

Wetlands: Purpose

Purpose 3: Water Filter

- wetlands clays and soils remove harmful phosphates, metals and agricultural runoff from surface and groundwater.

Wetlands: Danger

Why are wetlands in danger?

- People are building on top of our wetlands.
- Not all wetlands are protected land
- People don't know how to protect the wetlands
- People don't realize the wetlands are in danger, and how many wetlands are endangered.



Wetlands: Help

HOW CAN WETLANDS BE RESTORED?



- PEOPLE SHOULD NOT BUILD ON WETLANDS
- EDUCATE PEOPLE ABOUT HOW IMPORTANT AND WHAT WETLANDS ARE DOING FOR THE ENVIRONMENT

Draw a Picture of a Wetland!

BE SURE THERE ARE PLANTS AND ANIMALS IN THE PICTURE!

Forests: Characteristics

A land with a lot of trees, at higher elevation, lots of precipitation, cooler/lower temperatures



Forest Plants

Coniferous trees,



Deciduous trees,

poison ivy,



pinecones



Forest Animals

Deer, frogs, moose, elk, cougar, snake, fox, woodpecker



Two Types of trees

DECIDUOUS TREES



CONIFEROUS TREES



Deciduous Tree Characteristic

Deciduous Leaves change color in the fall and fall off during winter, grow on lower slopes,
"Dec" - December - Die - leaves fall off



Examples of Deciduous Trees

Quaking Aspen Tree



Oak Tree



Cottonwood Tree



Maple Tree



Draw the structure of a Deciduous Tree in the box on your paper

Coniferous Tree Characteristics

Leaves are needle like, stay green all year round, grow on higher slopes



Examples of Coniferous Trees

Douglas Fir Tree



Juniper Tree



Lodgepole Pine Tree



Ponderosa Pine
Tree



Draw a picture of a Coniferous
Tree in the box on your paper

Utah Deserts

Characteristic:

A land that is very dry, can be hot or cold, Low precipitation
- less than 10 inches of rainfall per year, low elevation.



Desert Plants

cactus



sagebrush



tumbleweeds



Desert Plants Continued

sandy soil



Desert Soil

Arrowgrass



Sego Lily



Utah State Flower

Desert Plants Continued

desert flower



Joshua Tree



Desert Animals

Coyote, Jack Rabbit, Toad, Tarantula,

Hawk, Tortoise, Snake, squirrel, lizard

Animal Adaptations

Tortoise Burrows in Sand



Animal Adaptations

Snake Sheds Skin, Camouflage



Animal Adaptations

Jack Rabbit has Large Ears



Plant Adaptations

Cactus

Moist and sticky inside,

Grow far apart,

Spikes for protection,

stores water



Animal Adaptations

Squirrels Collects
and Stores food



Interactions

Interactions: the way that plants and animals are connected and rely on one another for survival.

What interactions can you think of?

Leather boot- _____ -hay/grass- _____

-what animal would you get leather from? -where do you find hay/grass?

Cotton shirt- _____ - soil

-what plant does cotton come from?

Pulled pork- _____ - corn- _____

-what animal does the pulled pork come from? -what does corn grow in?

Lion- _____ - ant - _____

-what does a lion eat? -where do ants live? what do they eat?

Interactions

WHAT HAPPENS IF THE BALANCE OF LIFE IS DISRUPTED?

- 1. LOTS OF DIFFERENT SPECIES COULD GO EXTINCT.**
- 2. WE COULD END UP EATING TOO MUCH OF A CERTAIN FOOD BECAUSE OF OTHER FOODS AREN'T AVAILABLE.**
- 3. CERTAIN ANIMALS MAY HAVE NO MORE FOOD TO EAT.**

Utah Plant and Animal Adaptations

Two types of adaptations:

- 1. Behavioral: things that plants and animals do to survive in their environment**
- 2. Physical: characteristics that plants and animals have to help it survive in its environment**



Photo: Andy Skerrett

Utah Plant and Animal Adaptations

THREE TYPES OF ANIMAL ADAPTATIONS DURING WINTER:



a. MIGRATE



B. HIBERNATE



C. GROW THICK FUR

Utah Plant and Animal Adaptations

Three ways a Prickly Pear Cactus adapts to living in the desert.



Spikes for protection.



They are moist and sticky inside as they hold water.



They grow far apart from one another.

Utah Plant and Animal Adaptations

Jack Rabbits adapt to their environment. They have
LARGE EARS.



Their large ears are how they keep themselves cool. You could consider them "Ear Conditioners."

Utah Plant and Animal Adaptations



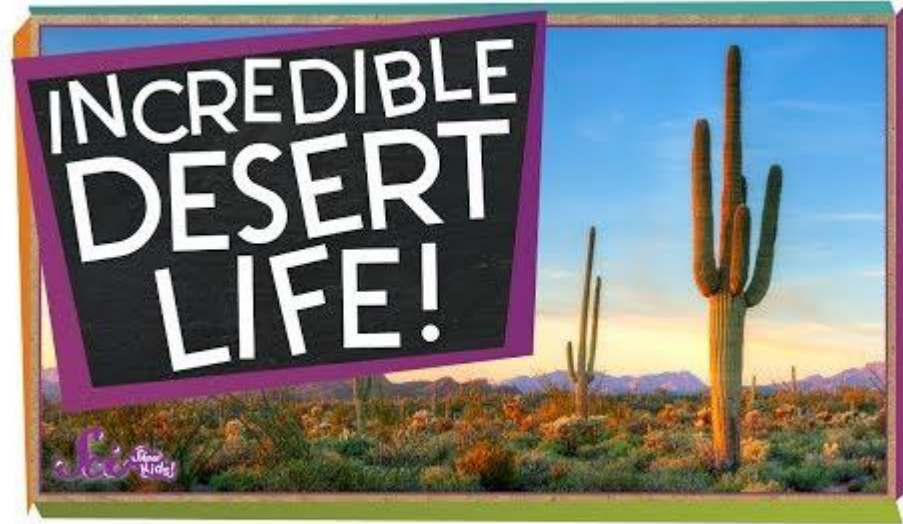
Birds adapt to winter conditions by migrating to warmer weather.

Utah Plant and Animal Adaptations



Utah Plant and Animal Adaptations

How to survive living in the desert.



Vertebrates

What is a vertebrate?

A vertebrate is an organism with a backbone or spine.

Vertebrates

Animals with backbones



Fish



Amphibians



Reptiles



Mammals



Birds

Vertebrate: Birds

Characteristics	Examples
● Wings	● Blue Jay
● Beaks	● Bald Eagle
● Claws	● Hawks
● Feathers	● Owl
● Lays eggs	
● Warm blooded	



Vertebrate: Fish

Carp



Cutthroat Trout



Blue Gill

Characteristics

- Gills, fins and scales

- Live in water

- Cold Blooded

- Lays Eggs

Examples

- Carp

- Channel Catfish

- Cutthroat Trout

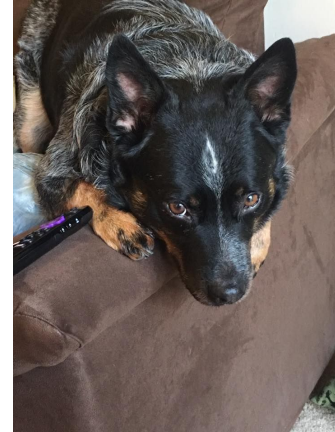
- Blue Gill



Channel Catfish

Vertebrate: Mammal

Characteristics	Examples
<ul style="list-style-type: none">● Hair or Fur	<ul style="list-style-type: none">● Human
<ul style="list-style-type: none">● Gives birth to live young	<ul style="list-style-type: none">● Cat
<ul style="list-style-type: none">● Has lungs	<ul style="list-style-type: none">● Dog
<ul style="list-style-type: none">● Warm blooded	<ul style="list-style-type: none">● Elk
	<ul style="list-style-type: none">● Coyote



Vertebrate: Amphibian



Characteristics	Examples
-Slimy Skin	-Frog
-Born in water	-Newt
-Lives on land when an adult	-Salamander
-Cold blooded	

Vertebrate: Reptile

Characteristics	Examples
<ul style="list-style-type: none">● Scaly Skin	<ul style="list-style-type: none">● Snake
<ul style="list-style-type: none">● Born on land	<ul style="list-style-type: none">● Tortoise
<ul style="list-style-type: none">● Lays Eggs	
<ul style="list-style-type: none">● Cold blooded	



Animal Classification

