Behind the Gates at El Sauz
Learning Booklet

This Learning Booklet Belongs To:

_____

We promote the advancement of land stewardship
through ranching, science, and education.

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Station 1
Cattle Ranching

1. Cattle ranching is a big part of South Texas history. Ranches like El Sauz are important because they provide people with beef, clean water, fiber, and they provide a much-needed habitat for Texas wildlife.

2. Ranchers help manage the ranch ecosystem by making sure there are plenty of plants and a good balance of animals such as herbivores, carnivores, and omnivores. This allows for a healthy ranch ecosystem.

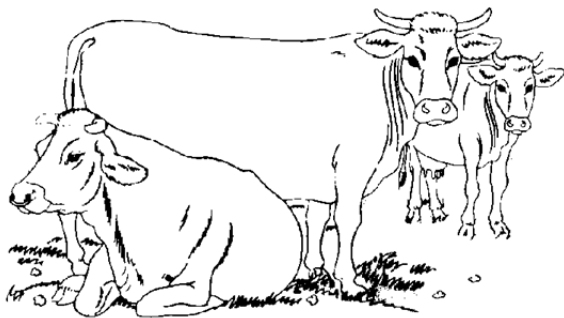3. One food chain that exists on the ranch is:
    Sun → Grass → Cows → Bacteria

    All energy in an ecosystem is derived from the sun, the sun gives energy to the _____ (grass) to make their own food, they give energy to the _____ (cows) when the cows eat them. When a cow dies, its body provides energy to the _____ (bacteria). The arrows in a food chain or food web represent the flow or transfer of energy. When beef is consumed in a meal, cows pass on their energy to people.

Let's play the Cattle Grazing Game!

El Sauz Food Chain

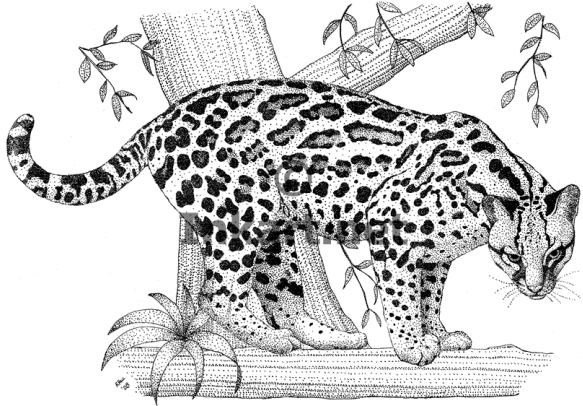Sun → Grass (Producer) → Cows (Consumer) → Bacteria (Decomposer)

Associated TEKS: Science 5.9(B)

Station 2
The Endangered Ocelot and Conservation Efforts

1. The ocelot is a wild cat that is native to Mexico and South America. It used to be found in many parts of Texas and a few were found in Arizona and Louisiana. Because of overhunting, habitat loss, and road accidents there are less than 80 ocelots left in the entire United States!

2. In the United States, ocelots are only found in South Texas at El Sauz ranch and other surrounding areas.

3. Many people are working very hard to help the ocelot population. Some of the things they are doing include:

   1) _____ native ocelot habitats on public and private lands,

   2) providing safe passages under highways for traveling ocelots, and

   3) _____ people about the ocelot so that they can help protect it.

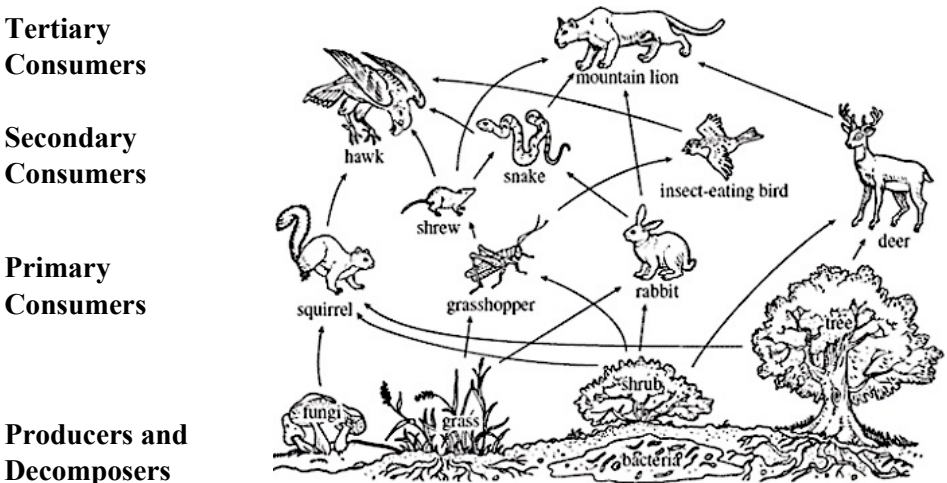What are some of the ocelot's characteristics?

1. _____

2. _____

3. _____

Associated TEKS: Science 5.9(C)

Station 3
Exploring the El Sauz Ranch Ecosystem

1. El Sauz Ranch is a part of a large ecosystem. An ecosystem is composed of both _____ (living) and _____ (non-living) things which are interdependent. Plants and animals depend on abiotic factors such as temperature, rainfall, and sunlight to survive.

2. Plants in an ecosystem are producers, they make their own food through a process called _____ and produce oxygen and food for animals.

3. Animals in an ecosystem are consumers. Some may be herbivores (plant eaters), carnivores (meat eaters), or omnivores (eat both meat and plants).

4. An ecosystem also has decomposers and scavengers. Decomposers such as _____ and _____ break down dead organisms that return to the soil as nutrients. Scavengers are animals that feed on the meat of dead animals or plants.

El Sauz Food Web

Tertiary Consumers

Secondary Consumers

Primary Consumers

Producers and Decomposers

Associated TEKS: Science 5.9(A)

Station 3
Exploring the El Sauz Ranch Ecosystem

Let's Explore the El Sauz Ranch Ecosystem! On your small hike, find the following at El Sauz Ranch with your partner.

Name of My Partner _____

(✔)   Describe What You Found

____1 ground animal home   _____

____1 tree animal home   _____

____1 type of plant seed   _____

____1 type of animal scat   _____

____1 type of soil (How does it feel?)   _____

____1 thing a mammal would eat   _____

____1 organism that is camouflaged   _____
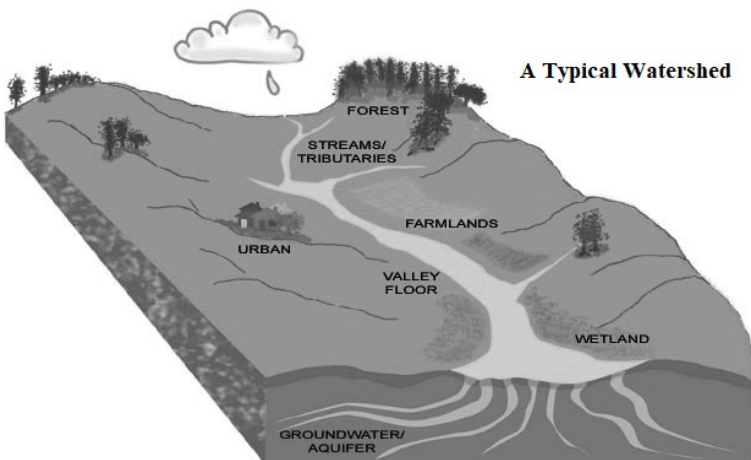

____1 type of insect   _____

____2 organisms that fly   _____

____2 organisms that walk or crawl   _____

Station 4
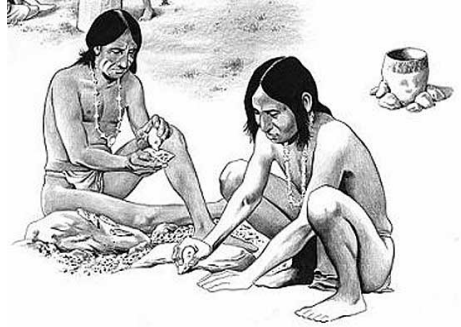# Land Stewardship and Texas Watersheds

1. Water is very important to plants and animals in an ecosystem. Rain is able to fall on El Sauz Ranch because of the water cycle. The sun's energy heats up the water in the ocean, allowing it to _____, the water vapor then travels up to the sky where it cools down and condenses into water droplets producing _____. Water droplets become too heavy and then produce rain, a type of precipitation that falls on the land.

2. An area of land that drains to a certain body of water when it rains is called a _____. Everyone lives within a watershed and must help keep it clean through proper land stewardship.

3. In order to have clean run-off we must pick up pet waste and trash and dispose of it properly. We must also use less fertilizer and pesticides on our lawns and use fewer plastic products.

4. Proper land stewardship provides people, wildlife and aquatic animals clean water. Land stewards must make sure there is plenty of vegetation on our land and prevent pollution so that there is clean run-off into our rivers as they flow to the ocean.
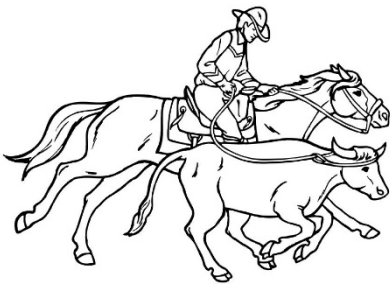

A Typical Watershed

FOREST
STREAMS/ TRIBUTARIES
URBAN
FARMLANDS
VALLEY FLOOR
WETLAND
GROUNDWATER/ AQUIFER

Associated TEKS: Science 5.8(B)

Station 5
Historical Land Use of South Texas

1. American Indians in South Texas lived by hunting wildlife, gathering plants, and fishing. They hunted animals such as white-tailed deer and _____. They gathered native plants such as mesquite and _____ for food and medicine. The Tampacuas were one of many American Indian groups who lived in the area.

2. Early Spanish-speaking settlers in South Texas introduced a new way of life based on ranching. They and their vaqueros (cowboys) brought new livestock, or animals to raise and herd. Some of the animals they brought to South Texas were cattle, horses, donkeys, sheep, and _____. The settlers' livestock grazed on the grassland in the area. Ranchers today still raise many of the same kinds of animals that José Narciso Gonzalez Cavazos had on his land over 200 years ago.

3. From their cattle, settlers got _____ and meat. From their sheep, colonists got wool and meat.

4. Settlers in South Texas traded or sold what they produced to get other goods such as sugar, fabrics, and iron for _____. To take goods to trade, settlers packed them on mules or carts pulled by oxen.

5. Both American Indians and settlers needed some of the same important resources found in South Texas. They used the Rio Grande, or they dug wells to get water. They also depended on animals that consumed grass for food.

Associated TEKS: History 5.1(A), Geo. 5.8(A), Geo 5.9 (A)

Station 6
Adaptations and Hunting and Fishing

1. An adaptation is a characteristic or trait that helps an organism _____ in its environment.

2. An adaptation that herbivores or prey animals have is eyes on the _____ of their head. This helps them detect predators from all directions. They also have flat molars and incisors for eating plants. Examples of herbivores in South Texas include deer, rabbits, and beavers.

3. An adaptation that omnivores and carnivores have is eyes on the _____ of their head this helps them to have binocular vision to focus on prey. They also have sharp teeth and claws. Examples of predators in South Texas include coyotes, bobcats, raccoons, and ocelots.

4. For an ecosystem to be healthy, it must contain a wide variety of plants and _____ of predators and prey. If there are too many prey (herbivores), competition for plants and other resources increases. When this happens, herbivores may starve or are not healthy and their population decreases.

5. In Texas, ranchers, scientists, game wardens, and hunters help manage wildlife on private and public land. Hunting and fishing laws are in place to conserve the wildlife. People must hunt safely, ethically and legally in order to manage populations of game animals. Texas Parks and Wildlife is a state agency that helps manage and conserve Texas wildlife.

Associated TEKS Science 5.9(B), 5.9(C)

Field Lesson Chant

To the beat of Queen's *We Will Rock You*

Repeat after your Camp Rio Guide!

Learning to take care of the land,

Out at the ranch with my own two hands,

Becoming stewards of the special three,

Land!

Water!

Wildlife!

That's Me!