

## Prairie Ecology

Common Core Anchor Reading Standard 1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

The prairie is a natural ecosystem. Eco means house. An environment is a home. System is a word that comes from another word meaning place together. A ecosystem is a place where plants and animals fit together. The Tallgrass prairie is a special kind of ecosystem. Read about ways three animals live in the Tallgrass Prairie. Then you will understand more about how things fit together there.

Above the prairie, you will see the skipper butterfly. It depends on the plants here throughout its life. Butterflies begin life as an egg. The female butterfly lays eggs on a plant. She lays them inside a shell to protect them. The larva of a butterfly eat through that shell. What is a larva? It looks like a hairy worm. Its outside is flexible but tough. Scientists also call this stage of the butterfly's life a grub. It has no wings. It also is called a caterpillar. The larva eat the plant leaves. As it eats, the larva grows quickly. The larva molts. That means it sheds its outer layer of skin. It does that because it needs to grow. The old skin is too tight. After some time, the larva makes a pupa. A pupa is a kind of shell. Inside that shell, it does something really surprising and wonderful. It turns into a butterfly with wings. That takes about two weeks.

The butterfly starts out with damp wings. They have been crumpled inside the pupa. So the first thing it does is spread its wings. They are damp from being inside the pupa. So it takes the butterfly about twenty minutes to spread its wings and dry them. Then about two hours later, the butterfly is ready to fly. Then the skipper flies to find food, food it finds growing in the Tallgrass prairie.

On the ground and below it, you will find the ground squirrel. This animal is about one foot long and lives in big families. It has a brown coat to camouflage it when it moves along the ground. Animals use camouflage, color, to blend with their habitat. It is a kind of protection. The ground squirrel is an herbivore. That means it eats plants. It eats grass, so there is much food in the prairie. Sometimes it eats insects, too. It hibernates in winter.

On the ground in the past you would have seen the bison. This big herbivore grazed on the plants. The bison was a kind of gardener for the prairie. It ate weeds. A weed is a plant that is not native to an environment. So when weeds would start to grow in the prairie, the bison would get rid of them. Without the bison, the weeds might take over the land that the prairie plants needed. So the bison helped the prairie to maintain balance. A balanced environment is a place where plants and animals have what they need to survive.

### *Design a Prairie Plant*

All three of those animals depend on prairie plants. Design a plant that would grow on the prairie. Your flowering plant must resist high wind, have seeds that can float on the air, have strong roots so anchor it on the prairie. Its job is to provide food for animals. After your draw your plant, explain how it has adapted to meet these needs and fit that niche.

**Prairie Ecology QUESTIONS**

Read the questions. Re-read the text. Then think through the answers.

Choose the **best** answer for each item. After you answer the questions, check with another student to learn and why they chose their answers.

<p>1. Which of these would a herbivore eat?</p> <p>a. skipper butterfly b. grass c. mosquito d. squirrel</p>	<p>2. How do butterflies depend on plants?</p> <p>a. for food b. for homes c. for larva d. for color</p>
<p>3. Why is the bison called a prairie gardener?</p> <p>a. the bison kept weeds out of the prairie b. the bison is a symbol of the prairie c. the bison eats prairie plants d. the bison lives in the prairie</p>	<p>4. How has a ground squirrel adapted to the prairie?</p> <p>a. it eats insects b. it eats grass c. it is an herbivore d. it hibernates</p>
<p>5. In which season does the skipper butterfly depend on the prairie?</p> <p>a. winter b. spring c. summer d. all seasons</p>	<p>6. How does the bison help balance the prairie?</p> <p>a. it eats grass b. it hibernates c. it eats weeds d. it eats many plants</p>
<p>7. How is the prairie like a house?</p> <p>a. it provides a home for many animals b. it has many parts c. it is very big d. it has different levels</p>	<p>8. What would happen to a plant in the prairie if it did not have deep roots?</p> <p>a. it would not survive b. it would spread to other places c. it would die in winter d. it would grow most in spring</p>

**Writing Connections**

Write a page about a butterfly in your own words.

Start by making a list of the facts about the butterfly in Prairie Ecology.

Add more facts that you know about butterflies.

You can use other material to add to your fact list.

Then write your own butterfly page.

You can make the page more meaningful by adding illustrations.