



# Prairie Ecosystem

*Then God said: Let the earth bring forth vegetation: every kind of plant that bears seed and every kind of fruit tree on earth that bears fruit with its seed in it. And so it happened: the earth brought forth vegetation: every kind of plant that bears seed and every kind of fruit tree that bear s fruit with its seed in it. God saw that it was good. Evening came, and morning followed—the third day. – Genesis 1: 11-13*

## Introduction

As you drive to Prairie Star Ranch, you will inevitably travel through a prairie ecosystem. In this session, we will explore the most common ecosystem in Kansas through observation, interactive games, and data collection. Topics covered in this session include: prairie reclamation and restoration, grasses, plants, invasive species, wildlife, birds, and weather spotting.

## Student Performance Objectives

Through participation in this activity students will:

- Observe the structural differences among various grass, plant, and bird species
- Identify plants commonly found in the Kansas prairie
- Describe the effect of resource availability on animal populations
- Explain the interdependence of all of creation using the food chain
- Understand issues related to species biodiversity and distribution
- Explain the process and importance of prairie restoration
- Collect and graph data; extract, interpret, and use the information presented in the graph
- Identify various cloud types and their implications

## Archdiocesan Standards

- 4<sup>th</sup> Grade Physical Science; Energy 2
- 4<sup>th</sup> Grade Life Science; From Molecules to Organisms: Structures and Processes 1
- 4<sup>th</sup> Grade Earth and Space Science; Earth’s Systems 1
- 5<sup>th</sup> Grade Physical Science; Energy 1
- 5<sup>th</sup> Grade Life Science; Ecosystems: Interactions, Energy, and Dynamics 1
- MS-LSI-5
- MS-LS2-1
- MS-LS2-3
- MS-LS2-4
- MS-ESS2-1
- MS-ESS2-4
- 4<sup>th</sup> Grade Religion 7

## Activities

- Beef Up Your Powers of Observation
  - In this activity, one student leaves the room and the other students are asked to describe what he or she was wearing. Students rediscover the importance of paying attention to detail.
- “Oh Deer!”
  - In this high energy tag game, students discover the complicated interaction between living things and their environment. Each “year” of the game shows how population growth and mortality rates among living organisms (in this case, deer) are affected over time due to access to resources.
- Web of Life
  - Students will discover how all aspects of creation are interconnected and dependent on each other as energy sources and for survival.
- Weather Spotting
  - Using cloud identification tools, students will determine which type of clouds are in the sky and what these clouds might tell us about the weather.

- Bird Beak Adaptations
  - In this game, each student is given a utensil which serves as their “beak” and they try to eat various types, textures, and sizes of food. Certain beaks allow food to be more easily eaten than others. Using their experience, students will explain why certain beak adaptations prove useful to birds on the prairie.
- Bird and Caterpillars
  - Students rush to collect as many toothpicks as they can in a minute. The catch? The toothpicks come in all different colors and are scattered in the grass. The bright toothpicks will be found more often while the brown and green toothpicks will often be left behind. Through this activity, students will learn about the concept of camouflage and its importance in animal and insect survival.