

## **PRAIRIE EXPLORATION**

**Lesson By:** Jared Merriman

**Grade Level:** 4<sup>th</sup> grade

**Focus:** This lesson will address the biodiversity of prairies.

### **Objectives:**

1. Students will be able to tell a prairie apart from their own back yard.
2. Students will be able to use ID guides
3. Students will be able to understand the relationship between insects and plants

### **Standards:**

#### **EL 4.7.1 2006**

Ask thoughtful questions and respond orally to relevant questions.

#### **EL 4.7.15 2006**

Connect and related experiences and ideas to those of the speaker.

#### **SC 4.2.5 2000**

Write descriptions of investigations, using observations and other evidence as support for explanations.

#### **SC 4.3.2 2000**

Observe, record and compare the physical characteristics of living plants or animals from widely different environments. Describe how each plant or animal is adapted to its environment.

#### **SC 4.4.3 2000**

Observe and describe that organisms interact with one another in various ways, such as providing food, pollination, and seed dispersal.

### **Background:**

Background material is found in the Teacher's Guide.

### **Materials:**

1. Work sheet
2. Pencil
3. Butterfly nets
4. Bug boxes/jars
5. Field guides for insects and wild flowers.

### **Procedure: (60 Minutes Total)**

1. Walk around the prairie section in front of the tables near the education center. This can either be done as a whole class or in small groups. Remember that students should be accompanied by an adult at all times, but that the students should be exploring for themselves. Let the kids decide where in the prairie looks interesting and what looks cool.
2. Describe and discuss wild flowers and prairie grasses. Focus on how prairie plants aren't just overgrown lawns, but have important features that make them important to other organisms (like insects). Again, let the students' exploration of the prairie drive the discussion. It is not necessary to identify the plants to the species level, "goldenrod" or even "pretty white flower on a tall stem" is acceptable. Challenge the students to identify

them as specifically as possible, but it's ok if they aren't able to.

3. The next activity is to catch and identify various insects. Instruct the students to sweep their butterfly nets into the prairie grasses to catch many insects. Then, on their own or with an instructor's help, transfer the insects into the bug jars that can help magnify the insects that they caught. Let the kids enjoy finding bugs, but remind them to be careful so that they don't hurt the insects and/or the insects don't hurt them.
4. Discuss the relationship between plants and insects. Encourage them to find their own answer. The topic is broad because the relationships between insects and plants are varied. Help them find as many relationships as possible. After the students have shared the connections they have found, you should share some others. This can include how some insects (namely, wasps) lay eggs in prairie plant stems, which causes the plants to swell up. These swellings are called galls that keep the eggs protected until they hatch and does not harm the plant at all. Also plants produce flowers with nectar that many insects use as a food source.

**Evaluation:**

1. The explorer's journal will act as an evaluation for the students. Make sure each student is carrying and filling out their journal throughout the day and activities.
2. Instructors will evaluate the comments, participation, and the connections made in the class discussion.