



**Lesson Plan**

**Theme:** Plants have different adaptations to help them spread their seeds.

**Length of Lesson:**

Introduction: 25 minutes

Field and Interpretive Center (IC) Activities: 55 minutes

Conclusion: 10 minutes

**Minnesota Academic Science Standards/Benchmarks:**

- 2.4.1.1.1 – Describe and sort plants into groups in many ways, according to their physical characteristics and behaviors.
- 2.4.2.1.1 – Recognize that plants need space, water, nutrients and air, and that they fulfill these needs in different ways.
- 3.4.1.1.1 – Compare how the different structures of plants and animals serve various functions of growth, survival and reproduction.

**Excellence in EE: Guidelines for Learning Standards:**

- Grades (K-4) - Strand 1 Questioning, Analysis, and Interpretive Skills, C) Collecting Information
- Grades (K-4) - Strand 2.2 The Living Environment A) Organisms, Populations, and Communities

**Objectives (Students will be able to...):**

- Identify four different seed adaptations.
- Explain why seeds need to move away from the parent plant.

**Background Information :**

Plants have **adaptations**, or characteristics that help them survive. Adaptations can be physical (feathers, flowers) or behavioral (migrating birds, building dams). Plants typically have physical rather than behavioral adaptations. Because all seeds need sunlight, soil, water, and space to grow, plants have adapted different methods to move their seeds away from the **parent plant** that would outcompete the young seeds. These adaptations include **hitchhikers** (spiky, Velcro-like seeds that stick to animal's fur and are transported elsewhere); **droppers** (seeds that drop at the base of the parent plant but are tasty and attract animals to carry them off); **poppers** (seeds that spring off of their parent plant when touched); and **flyers** (seeds with "wings" or "parachutes" that are light enough to blow away in the breeze). For examples of the four seed adaptations, see pages 4-5.

*Helping people discover, enjoy,  
understand, and preserve the incredible  
natural world that surrounds us.*

## **Introduction:**

**Goals:** Welcome students to River Bend, introduce the River Bend leaders, and introduce the program content.

### **Key points:**

- Welcome
- Identify the key structures and their function in plants
- Introduce adaptations of seeds
- Set expectations for the day

## **Activities:**

### **1. Seed Hike (interactive learning)**

**Goal:** Find and collect examples of seeds with special adaptations (droppers, poppers, flyers, and hitchhikers).

### **Key points:**

- Students will hike in small groups lead by River Bend staff.
- They will search for seeds with special adaptations to bring back to the classroom.

**Assessment:** Students should be able recognize the four main seed types and describe any significant adaptations they have. Have students demonstrate what they've learned by describing their seeds.