

EarthWorks Orchard Curriculum

Seed Review and Fall Outdoor Fun!

Grade(s): 2-5	Topic: Seeds, Plant Life Cycle, Plant-Animal Interactions, Preparing for Winter	Season: Fall
Timing: 50 minutes, including 5 minute RPK, 10 minute introduction, 20 minute outdoor Squirrels and Jays game, 10 minute indoor drawing and journaling about game, and 5 minute conclusion		
Objectives: <ul style="list-style-type: none">• Students apply knowledge they have learned about seeds structure and dispersal in an exciting and engaging outdoor game called Squirrels and Jays.		
Materials: <ul style="list-style-type: none">• Acorns. Hundreds and hundreds of acorns. You should be able to gather them from a city park if you don't have any at your house or on your block. Keeping them in the freezer or outside is a good idea, in case critters are dwelling in or among them.• Example of seeds that disperse in different ways or pictures of seed dispersal examples.• Picture of a squirrel and a blue jay and an oak tree / oak leaf.		
Degree of need for extra teacher or parent helper? Low		
Journal Prompt: Have you seen any squirrels outside lately? What were they doing? Are they doing anything special to prepare for the winter?		

Lesson Sequence:

Reactivate Prior Knowledge (5 minutes)

Pass around an acorn to each student and ask students whether they have ever seen one before. What does it feel like? Smell like? Look like? What part of a plant is it? Which plant does it come from?

Introduction (10 minutes)

As a class, list the reasons seeds need to travel and ask them if they remember the 4 ways that seeds disperse (wind, water, animals, mechanical). Pull out an example of a wind or water dispersed seed and demonstrate how it moves; toss the maple samara into the air, float a coconut in a bucket of water. Tell the children that this week they will be exploring how one particular kind of plant uses animals to spread its seeds. This plant is an oak tree. Show the students a picture of an oak tree or an oak tree leaf and explain it is one of the most common trees in Eastern North America and its seed is called an acorn.

Squirrels & Jays (20 minutes)

This is an outdoor activity demonstrating how nuts travel that is sure to be a favorite of your class! It is a popular game, so try to leave as much time for it as possible. It can be done indoors if you are desperate.

Ask the students, what does a plant, including a tree, need to grow? (Sun, water, soil, and space.) What helps seeds find these things? Traveling! Why can't they grow right next to their parent plant? (Shade, competition for water, space, soil, nutrients.) How do acorns travel? Tell students the name, "hide and seek" and ask students if they have seen squirrels or blue jays hiding acorns. Brainstorm with the students why animals hide these seeds?

They eat only a portion of what they hide, finding their way back to them through their sense of smell and powerful memory skills, and forget the rest. How could this help a nut tree spread its seeds out? Squirrels and jays are very important to the dispersal of nut trees (oaks, hazels, etc.). Tell the students that they will play the role of squirrels and jays in seed dispersal in this game.

- Make two teams: The squirrels and the jays
- Give each squirrel 5 – 10 acorns.
- Squirrels have 2 minutes to hide their acorns. While they do that, jays turn their backs toward the squirrels (no peeking!). *You will need to time each team. (You can use a watch, count to 120, or have the other team count to 120!)*
- After the squirrels hide their acorns, the blue jays come through and look for them for 2 minutes. (Blue jays need 2 acorns to survive the winter). After they have searched, have the blue jays sit in a circle.
- Squirrels search for remaining nuts for 2 minute; they each need to find at least 1 acorn to survive. After the squirrels have searched for their acorns, have them join the circle.
- Have the squirrels and jays count the acorns they found.
- Switch roles if you have time.

Conclusion of Game:

Who survived? Who didn't? Are there acorns left out there (this is a good time for a quick math lesson)? What will happen to them? If there are oak trees outside, show the students what it and its leaves look like and explain again that they grow from acorns. If you are on

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a site where Squirrels and Jays was played in previous years, show the children an oak sapling that sprouted from a lost acorn.

Drawing and Journaling About Game (10 minutes)

Ask students to draw and journal about what animal they were. Did they manage to successfully find or hide acorns? Did they help to disperse oak tree seeds? How? Are they prepared for the difficult winter ahead of them?

Conclusion (5 minutes)

Reiterate animal dispersal and what kids learned from playing Squirrels and Jays.

Vocabulary

Acorn

Dispersal

Hide-and-seek

Vocabulario

Bellota

Dispersión

Escondidas

Extensions / Homework Ideas: