



Rockaway Plants and their Seeds

What the Dunes Teach Us



The big idea: Plant seeds have been passed down through generations, and each seed has a story to tell about the history of people and our relationship to land. Studying plants aids in conservation efforts, as it enables the preservation of biodiversity and the restoration of degraded ecosystems.

LESSON OVERVIEW

Through this lesson, students will learn about different seeds from native plants in the Rockaways, alongside some seeds with especially distinguishable qualities (like the potato!). Students will learn the plant parts dance, view different seeds, and work through identifying colors, plant names, or seed size, depending on learning stage. From this lesson, students will be able to increase their awareness of plant parts and native plants.

MATERIALS

- Plant and Seed Matching Cards Worksheet for each pair of students
- Seed Envelope Worksheet for each student
- Projector
- Colored pencils, markers, scissors

PREPARATION

In preparation for this lesson, you'll need access to some form of projection or screen to display the provided presentation on seeds of native Rockaway plants and other fun plant friends. You'll also need some paper or envelopes for students to develop their seed saving envelopes! If you can access real seeds, bring those to class for students to explore as well.

KEY DETAILS

ESSENTIAL QUESTION

What are the plant parts? What are native plants in the Rockaways?

LEARNING OBJECTIVES

- Student learn the plant parts and identify native Rockaway plants
- Students will gain experience with the idea of seeds and/or seed saving

CONCEPTS

Seeds variations, native plants, plant parts, seed saving

ACTION STEPS

1. Yoga Stretch: Ask students stand up and let them know you'll be learning a new plant-themed stretch today! Provide guidance by modeling the following movements.

Start crouched down as small as seed, "We are seeds, little tiny seeds! Woah, someone's watering us! It looks like we're growing because we're also getting some sunlight!"

Begin to unfurl from the ball position and place your palms together and point up to the sky, "Oh, look we're growing a stem!" Slowly reach up higher and higher. Start to stand up slowly.

Once you are standing, starting growing a leaf by stretching one arm out to each side, "Oh look, we're growing a leaf! Let me see your leaves!" Add your other arm to the other side to form your fully



GRADES

K-5

Rockaway Plants and their Seeds

What the Dunes Teach Us

grown plant. Congrats, you made it! Have students blown in the wind like a plant with their feet in one place.

Adjust the phrasing of the stretch for older students.

2. Seed Presentation and Game: Next, transition to the visuals! Pull up the seed presentation. This presentation has two main sections: the first section containing an educational song teaching students about the different parts of a plant. Feel free to switch out the video if you have a more suitable option. The google slides are editable. After playing the video, go through a few questions that will provide a review of the content in the video.

The second section of the presentation consists of a game that teaches students the color, seed size, and name of native and invasive dune species, as well as some more common plant species.

Before beginning the game, explain to the students the levels of difficulty. Each level (beginner, advanced, and expert) corresponds to one of three questions: "Identity for the colors of this plant", "Guess the name of the plant", and "Guess the size of this plant's seed". These levels of difficulty are designed to provide a degree of flexibility for the different age groups. For example, for fifth graders, you can choose to skip the beginner level question.

Go through each plant species and have students make their guesses before revealing the answer on the subsequent slide. Make sure to read out any outstanding labels and captions. Identify plants that are labelled native or invasive and explain what native and invasive species means.

3. Matching Card Game: Upon finishing the game in the presentation, organize the students into partners. Pass out the matching card game worksheets and scissors to each pair. Explain that this card game will be a fun way for the students to remember which seed belongs to which plant from the presentation. Have students cut out the cards and begin matching the cards together to the best of their ability.

At the end of the activity, go through each plant and ask students to reveal their answers for each plant/seed/name pairing. Refer to the presentation for answers.

REFLECTION

Have students discuss the following questions in small groups, then share with the class:

Social Emotional Learning:

- What was your favorite part of the activity today? Why was it your favorite?

Check for Understanding:

- Which plants have the smallest seed size?

- Which plants have the largest seed size?

- Which plant was your favorite?

- What was the most surprising/cool fact you learned today?

Made possible by:





MUGWORT



AMERICAN HOLLY



SEASIDE GOLDENROD





MAPLE TREE



PITCH PINE



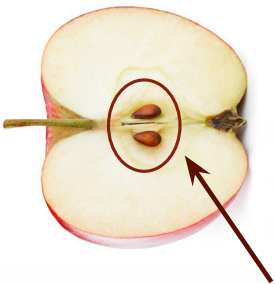
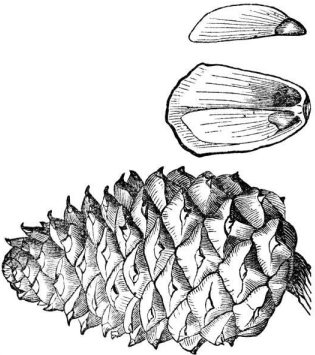
AMERICAN BEACH GRASS



SPOTTED JOE PYE WEED



NORTHERN BAYBERRY



POTATO PLANT



SUNFLOWER



EVENING PRIMROSE



APPLE