

Rockaway Plants and their Adaptations

What the Dunes Teach Us



The big idea: Plants face external forces and challenges that affect their health and ability to thrive.

At the same time, plants have special powers, called adaptations, that will help them to fight against these external forces.

LESSON OVERVIEW

Through this lesson, students will learn about different challenges that native plants in the Rockaways face. Through the lesson game, students will learn about how different plants use their adaptations to fight the challenges.

MATERIALS

- Projector

PREPARATION

In preparation for this lesson, you'll need access to some form of projection or screen to display the provided presentation on adaptations of native Rockaway plants.

ACTION STEPS

1. Adaptation Presentation and Game:

Begin the lesson by prefacing Rockaway and why it is a special place. Give students the opportunity to brainstorm some of their own ideas as well.

Next, go over the types of harsh conditions dune plants must endure such as harsh sunlight, strong winds, possibility of being buried under sand, or abrasive salty seawater.

Finally, explain the importance of adaptations and how they protect plants

KEY DETAILS

ESSENTIAL QUESTION

What are the challenges for dune plants? What are adaptations and how do plants use these strategies to combat the challenges?

LEARNING OBJECTIVES

Students will gain understanding of the idea of plant challenges and adaptations.

CONCEPTS

Dune plants, environmental challenges, plant adaptations

from the harsh environment. This is an example explanation: "Dune plants are like superheroes that live in sandy places near the ocean. Sometimes, these plants will face external forces and challenges that affect their health and ability to thrive. These plants have special powers, called adaptations, that will help them to fight against these external forces, such as strong roots to stay put in the moving sand and tricks to save water when it's really sunny. It is important for these plants to stay healthy because they stop the sand from blowing away and give homes and food to lots of animals. It's cool how they can survive in tough places and help keep the beach safe and happy for everyone!"

Play through the game. In each 'battle', there is a plant and its challenger. The student's job is to guess what 'superpower' (adaptation) the plant uses to defeat the challenge.

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