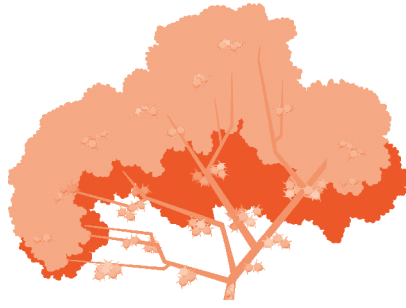


Seed Travels



What Is This Activity?

How and why do some plants spread lots of seeds?

Kids search for and observe a variety of local plants and seeds on a guided walk.

Learning Goals

Big Science Idea:

- Plants can't move on their own. They depend on wind, water, animals, and explosive forces to carry their seeds to new places where they can sprout and grow.

Skills kids will use to investigate the ideas:

- Investigate seeds and other things in the soil
- Observe, document, and compare local plants to explain where, how, and why they spread their seeds to new locations
- Discuss solutions to a seed dispersal challenge

How Do You Get Ready?

- Read the activity and gather the materials.
- Look through all of the "Plant Fact" cards for ones that suit your region; print and cut out all that apply. Laminate them, if desired, or use clear contact paper or shipping tape.
- Make one copy of "Plant Spotting Scavenger Hunt" handout for each kid.
- Scout out a green space such as your program's yard, a park, or a playground. Troubleshoot any safety concerns (traffic, poison ivy, sharp objects, etc.).
- Plan to skip the warm-up activity if the ground is frozen or snowy.
- If you don't plan to show the "Plant Your Socks!" video that is paired with this activity on the website, watch it ahead of time and jot down concepts to share with kids during the activity.

pbskids.org/plumlanding/educators

Curriculum Topics

plants, biodiversity, adaptation

Activity Type

outdoor, including sunny or cold days

Group Size

whole group

Activity Time

30–60 minutes

Materials

- Inexpensive or old fuzzy or cotton socks (one per kid, for the warm-up)
- "Plant Fact Cards" handout (see "How Do You Get Ready?")
- "Plant Spotting Scavenger Hunt" handout
- Notebooks or paper (for each kid)
- Pencils or pens
- Optional: Magnifying glass or hand lens
- Optional: Clear contact paper or shipping tape
- Optional: "Explore Plants Around You" handout
- Optional: Video or phone camera
- Optional: "Explorer's Notebook" template

Next Generation Science Standards

Disciplinary Core Ideas

LS1.A: Structure and Function
LS2.A: Interdependent Relationships in Ecosystems
LS4.D: Biodiversity and Humans

Science and Engineering Practices

Asking Questions and Defining Problems
Planning and Carrying Out Investigations
Obtaining, Evaluating, and Communicating Information
Analyzing and Interpreting Data
Constructing Explanations and Designing Solutions

Crosscutting Concepts

Patterns
Cause and Effect: Mechanism and Prediction
Structure and Function

- When you find seeds**, ask kids to imagine how the seeds might have spread.
 - Berries and other fruits** have seeds. They travel inside animals that eat them, or they fall to ground.
 - Many **seedpods** pop open with force, shooting their seeds a surprising distance.
 - Each dandelion seed** is attached to a tiny white “parachute” that drifts in the wind.
 - Wing-shaped seeds** twirl like helicopters away from the parent tree.
 - Some **pinecones** (the “female” ones) have seeds tucked into the scales. The cones fall and roll or, because they float, are carried away by water. The cone later dries up and opens, freeing the seeds.
 - Grass seed** is spread by wind or planted by people.
- Discuss:** *Why do some plants spread their seeds so far? What if they just let them drop?* (If baby plants grow near their parents, the plants will compete for sun, water, and nutrients.) *Why do plants produce so many seeds?* (Not all seeds end up in a habitat in which they can sprout and grow, especially in a heavily paved area.)

Wrap-up (10 minutes)

(Science Skills: Discuss solutions to a seed dispersal challenge)

- Discuss:** *Did anything surprise you today?*
- Be a tree:** Tell the kids they are going to pretend to be trees dispersing seeds. Have everyone (including yourself) stand perfectly still with arms raised like the branches of a tree. **Ask:** *If you were a tree, how would you spread your seeds far and wide?* Review the methods: Wind, water, gravity [fruit falling and rolling], animal digestion, hitchhiking, and exploding!) Tell the kids to pick one method to model.
- If you haven't already, **send home the “Explore Plants Around You”** **handout** to provide families with ideas on how to continue investigating plants together.

Explore Some More

Plant Sock Seeds

If kids did the “Hitch a Ride!” warm-up activity, they can plant and grow the seeds they collected! Have them:

- Add potting soil to the bottom of a small plastic cup.
- Shake or pull off a few seeds from their socks and place them on a piece of paper.
- Examine them with a hand lens, if available.
- Place the sock in the cup with the seed side facing up. Sprinkle seeds examined on top of the sock.
- Cover with a little more soil and water them just enough to make the soil moist.
- Take the cups home and water when needed to keep soil moist.



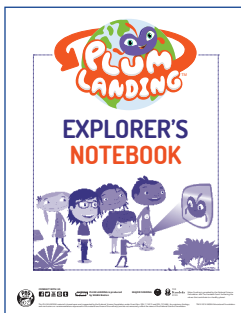
- Watch what sprouts! It takes about a week or so. Encourage kids to report their results and, if possible, take a picture to share.

Seed Racer

Play the online Plum Landing game Seed Racer, in which Plum explains how plants spread their seeds to new places using wind, water, and animals. Plum then challenges kids to collect a variety of seeds over a series of timed missions. Encourage kids to look for the fun facts that pop up as they play the game. Have them pay attention to how shape and other features of the seeds affect how they travel. (pbskids.org/plum)



Explorer's Notebook



Use the template provided: Have kids write about and sketch one of the plants they saw today. They can refer to their notes, sketches, and photos from the plant-finding activity or choose a new plant in your outdoor space. Guiding questions:

- *How many leaves does the plant have? What shape and color is it? Does it have flowers? Seeds? How do you think its seeds spread to new places?*



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handout

Plant Spotting Scavenger Hunt



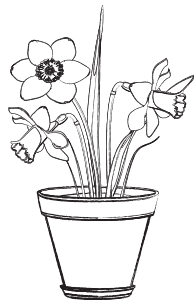
Exploring your world,
one mission at a time
pbskids.org/plumlanding

What plants can you spot in your neighborhood?

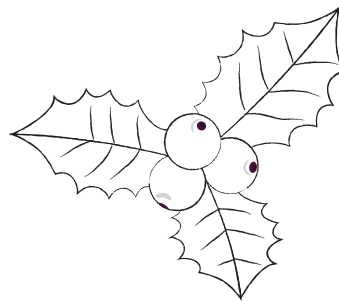
For your favorite finds, take a picture, make a sketch, or show a friend.
If you find seeds, think about how they spread.



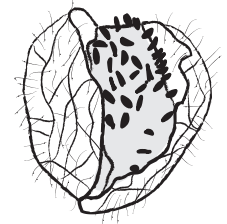
A plant that grew naturally on its own.



A plant that people planted.



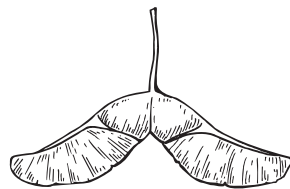
Berries or other fruits.



Seed pods (cases that hold seeds). **Open one!** (But only if it is already on the ground!)



Dandelions—yellow or white. **If white, blow on one.**



Seeds with one or two “wings” that twirl when you drop them.



Pine cones. **Are seeds tucked inside the scales?**



Grass that has “gone to seed” at the tips.



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hoja para repartir

Concurso de observación de plantas



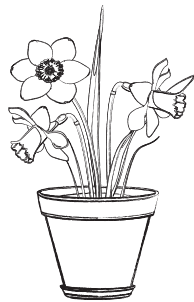
Exploramos tu mundo,
una misión a la vez
pbskids.org/plumlanding

¿Qué plantas pueden encontrar en el vecindario?

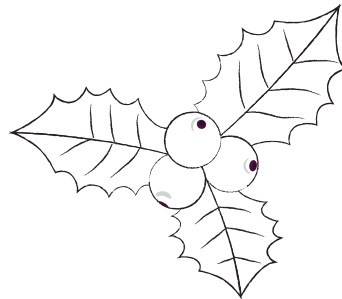
A lo que más te guste, tómale una foto, haz un dibujo o muéstraselo a un amigo.
Si encuentras semillas, piensa en cómo se propagan.



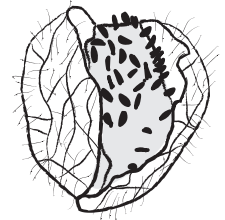
- Una planta que creció de forma natural, por su propia cuenta.



- Una planta que alguien sembró.



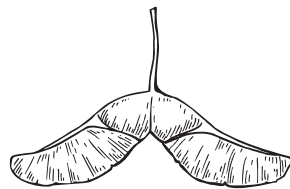
- Bayas y otras frutas.



- Vainas (cascarones con semillas adentro). **Abre uno**, pero solo si ya ha caído al suelo.



- Diente de león, blanco o amarillo. **Si está blanco, soplalo.**



- Semillas con una o dos "alas" que giran cuando uno las deja caer.



- Piñas de pino. **¿Crees que las semillas están ocultas entre las secciones?**



- Pasto o césped que ya produjo semillas en sus puntas.



CONÉCTATE CON NOSOTROS



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CON AUSPICIO CLAVE DE



Auspicio clave de la National Science Foundation y el Kendeda Fund: promovemos los valores que aportan a tener un planeta saludable.