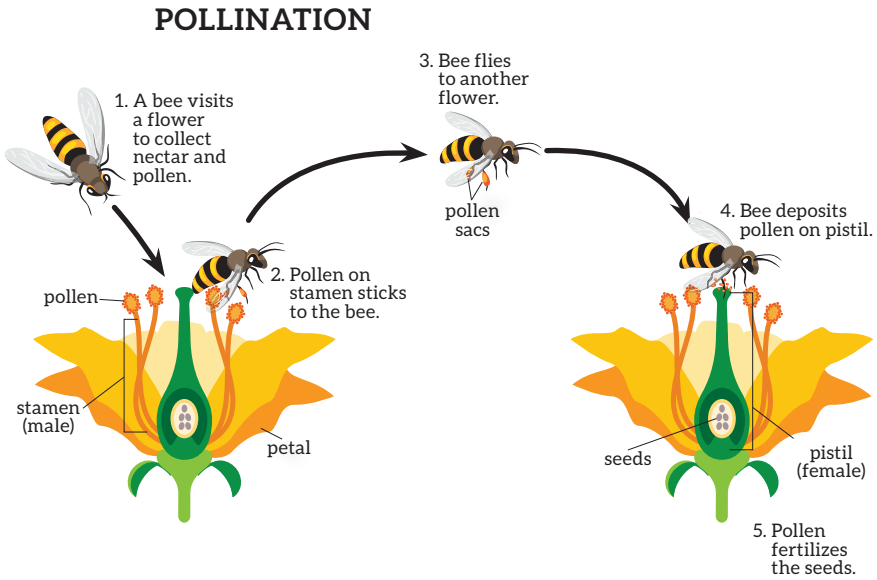

PLANT
HEROES
POLLINATION
JOURNAL

Have you ever wondered where plants come from?

Plants produce their young through the **pollination** of flowers and cones.

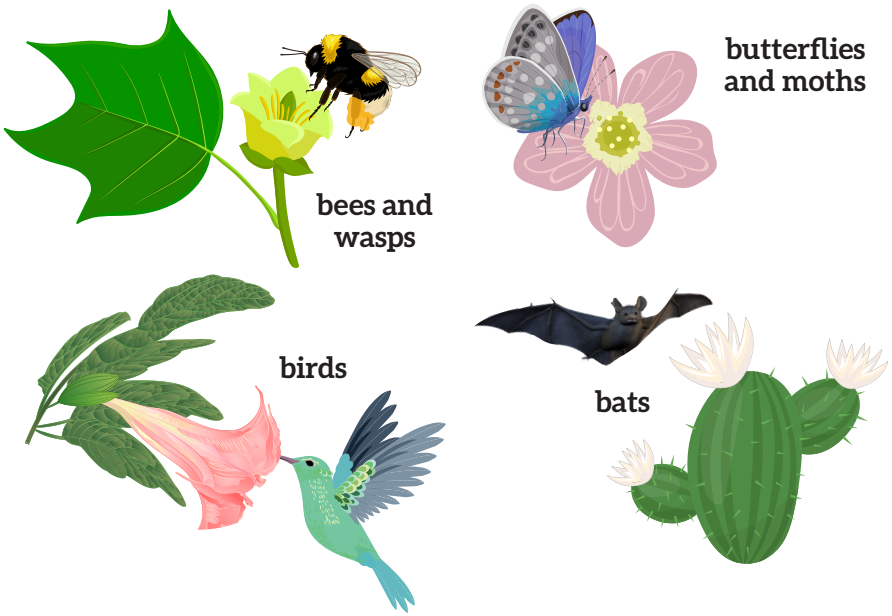
Pollination is the transfer of **pollen** from the **stamen** (male part) of a flower to the **pistil** (female part) that contains the unfertilized seeds inside.

Because plants can't move around, they can't get close enough to each other to transfer pollen on their own. That's why they rely on helpers such as bees to transfer pollen for them!



Once the pollen fertilizes the seeds, the seeds mature. These seeds then can germinate into seedlings.

Let's meet some of the helpers!



These helpers are called "**pollinators.**" They are attracted to colorful flowers filled with **nectar**, a sugary food source. When pollinators land on a flower, pollen sticks to them. When they move from flower to flower, they transfer pollen. That's how pollination works.

Did you know that some flies, ants, beetles, and even mosquitoes are also pollinators?

Which pollinators have you seen?

_____

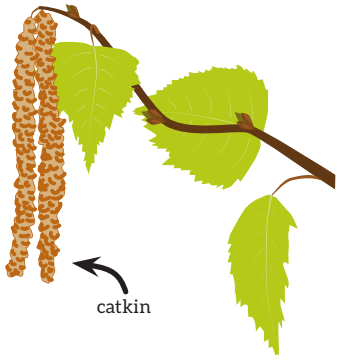
What is your favorite pollinator and why?

_____

_____

Wind Pollination

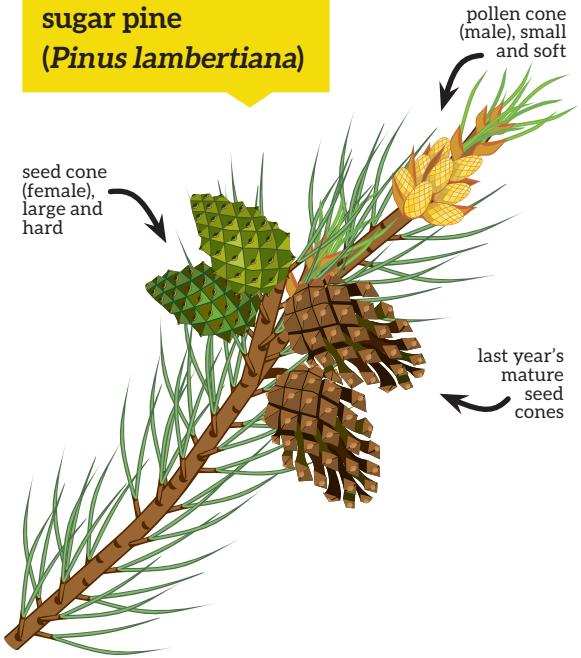
Trees that produce cones instead of flowers are called "conifers." They make male **pollen cones** and female **seed cones**. Without colorful flowers to attract pollinators, they depend on the wind to pollinate the cones.



Some flowering trees also use wind pollination. The male and female flowers on these trees do not have colorful petals and nectar. Scientists call these caterpillar-shaped clusters of flowers **"catkins."**

Let's look at some examples:

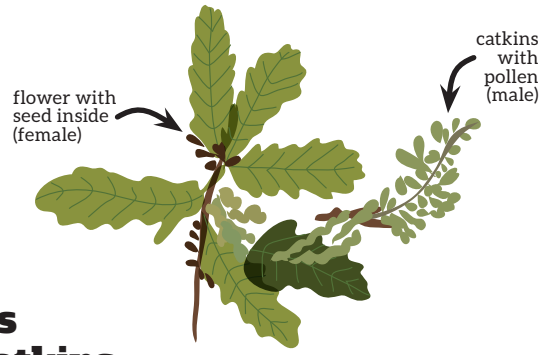
sugar pine (*Pinus lambertiana*)



Conifers that produce cones:

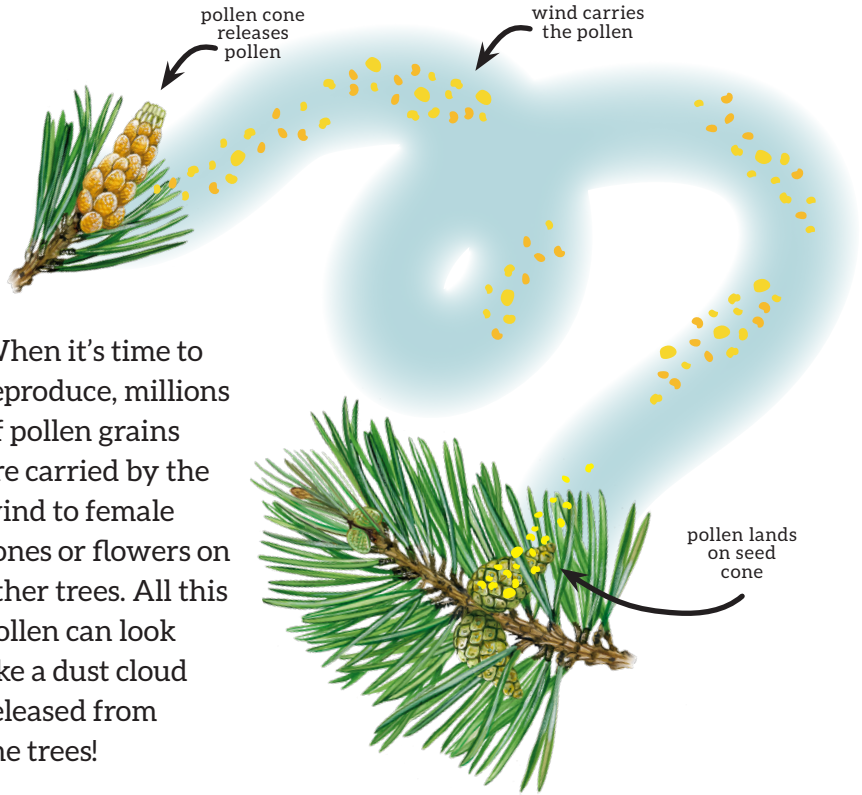
firs (*Abies* spp.), junipers (*Juniperus* spp.), pines (*Pinus* spp.), spruces (*Picea* spp.)

valley oak (*Quercus lobata*)



Flowering trees that produce catkins:

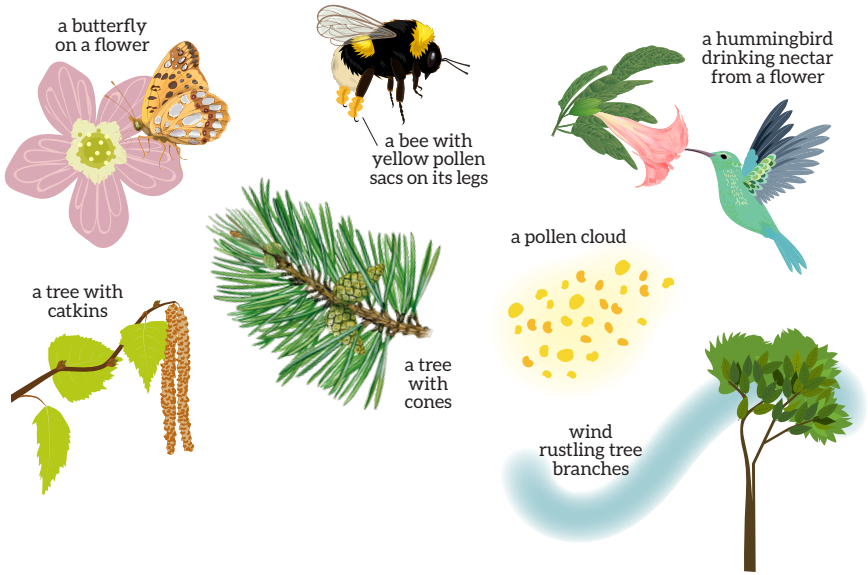
aspens and cottonwoods (*Populus* spp.), birches (*Betula* spp.), elms (*Ulmus* spp.), and oaks (*Quercus* spp.)



When it's time to reproduce, millions of pollen grains are carried by the wind to female cones or flowers on other trees. All this pollen can look like a dust cloud released from the trees!

Signs of pollination are all around us!

Use your detective skills to find some of the following clues:



Observation Notes

Date and Time: _____

Weather: _____

Circle the pollinators you see:

bees beetles butterflies birds flies other

Interesting observations:

_____

_____

_____

Draw the pollination clues you see.

Pollination Reflection

The most exciting thing I learned about pollination is

_____

_____

_____

I'm curious about

_____

_____

_____

I want to learn more about

_____

_____

_____

For more resources,
visit plantheroes.org

Follow us on social media!

@PlantHeroes

A program of the

American Public Gardens Association

In partnership with the

FOREST SERVICE
US
DEPARTMENT OF AGRICULTURE