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:

Conifers that produce cones:
- firs (Abies spp.),
- junipers (Juniperus spp.),
- pines (Pinus spp.),
- spruces (Picea spp.)

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!
Pollination Reflection
The most exciting thing I learned about pollination is

I’m curious about

I want to learn more about

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.

Signs of pollination are all around us!
Use your detective skills to find some of the following clues:

- a butterfly on a flower
- a bee with yellow pollen sacs on its legs
- a hummingbird drinking nectar from a flower
- a pollen cloud
- wind rustling tree branches
- a tree with catkins
- a tree with cones

POLLINATION
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