

Seeds, Bees, and Pollen



Teaching Focus:

Vocabulary: Suffixes

Look at the word flowerless? What is the root word? How does the suffix change the meaning of the word?

Tips on Reading This Book with Children:

1. Read the title.

Predictions – after reading the title have children make predictions about the book.

2. Take a book walk.

Talk about the pictures in the book. Use the content words from the book as you take the picture walk.

Have children find one or two words they know as they do a picture walk.

3. Have children find words they recognize in the text.

4. Have children read the remaining text aloud.

5. Strategy Talk – use to assist children while reading.

- Get your mouth ready
- Look at the picture
- Think...does it make sense
- Think...does it look right
- Think...does it sound right
- Chunk it – by looking for a part you know

6. Read it again.

7. Complete the activities at the end of the book.



Seeds, Bees, and Pollen

by Julie K. Lundgren

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A former high school teacher with a background in biochemistry and more than 10 years of experience in cytogenetic laboratories, Kristi Lew specializes in taking complex scientific information and making it fun and interesting for scientists and non-scientists alike. She is the author of more than 20 science books for children and teachers.

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Plants Make More Plants

All living things **reproduce**, including plants. Different types of plants reproduce in different ways.



Do you know how each of these plants reproduces?



Flowering Plants

Many plants use flowers to reproduce. Flowers make **pollen** and seeds. Flowers must trade their pollen with other flowers to make seeds.

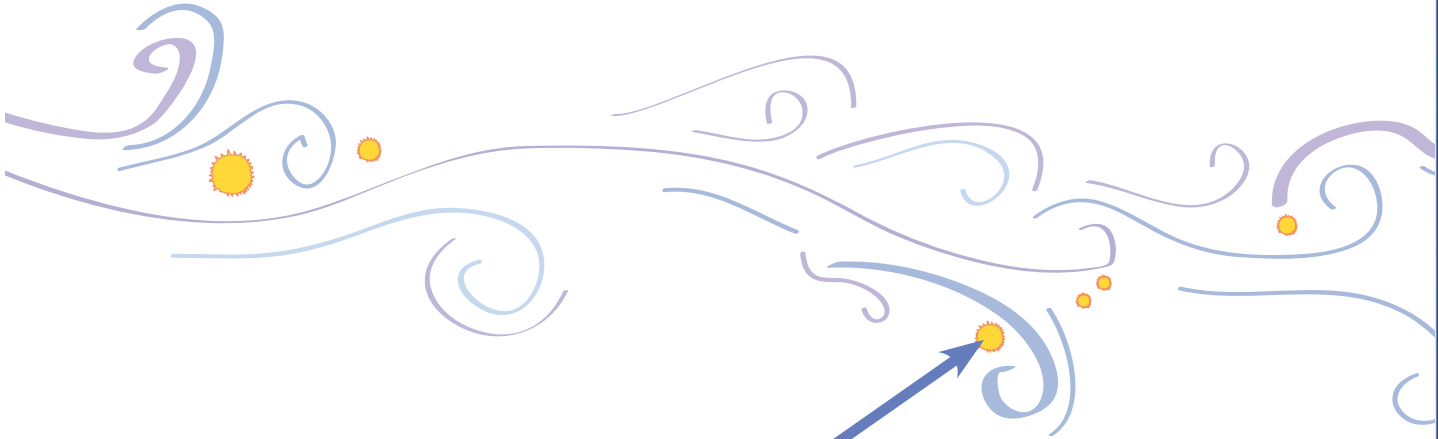


Pollen looks like golden dust on butterflies.

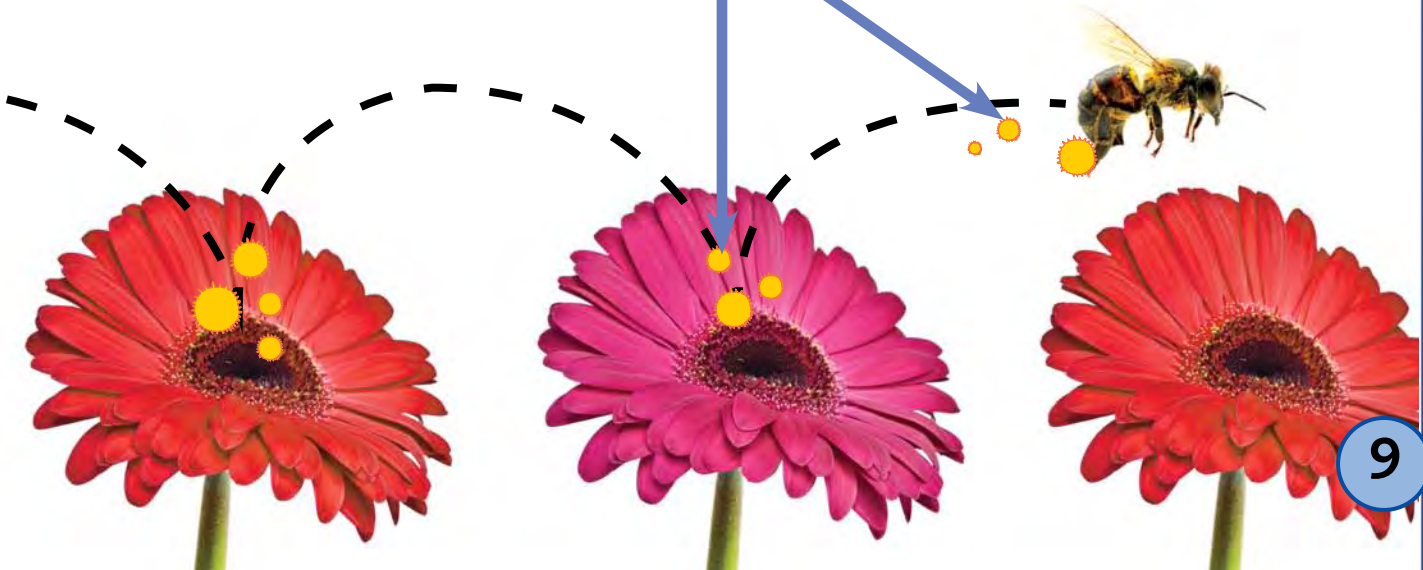
pollen

Flower pollen travels on the wind or on animals. Butterflies, birds, bees, bats, and other **pollinators** sip sweet flower **nectar**.

As they feed, pollen sticks to their bodies and brushes off on the next flower. Now that the flower has pollen from another flower, it can begin making seeds.



pollen



BEE FOOD

Bees also eat pollen. Honeybees and bumblebees have special pouches on their back legs for carrying pollen back to the hive. Plants have enough pollen for reproduction and for bees.





← pollen

Plants Without Flowers

Flowerless plants reproduce in other ways. Mosses and ferns make **spores**. Spores make new plants without using pollen or flowers.






Ferns make spores inside
the bumps on the back of
their leaves.

Conifers make seeds inside cones. Cones need pollen to make seeds. Only wind carries conifer pollen to new trees.





The cones must be open for gravity or wind to carry the seeds to new places to grow.


Some plants reproduce by copying themselves. Strawberry plants have **runners** that grow out from the main plant and sprout new plants.

Runners grow above ground.
One strawberry plant can
grow many runners.

**main
plant**

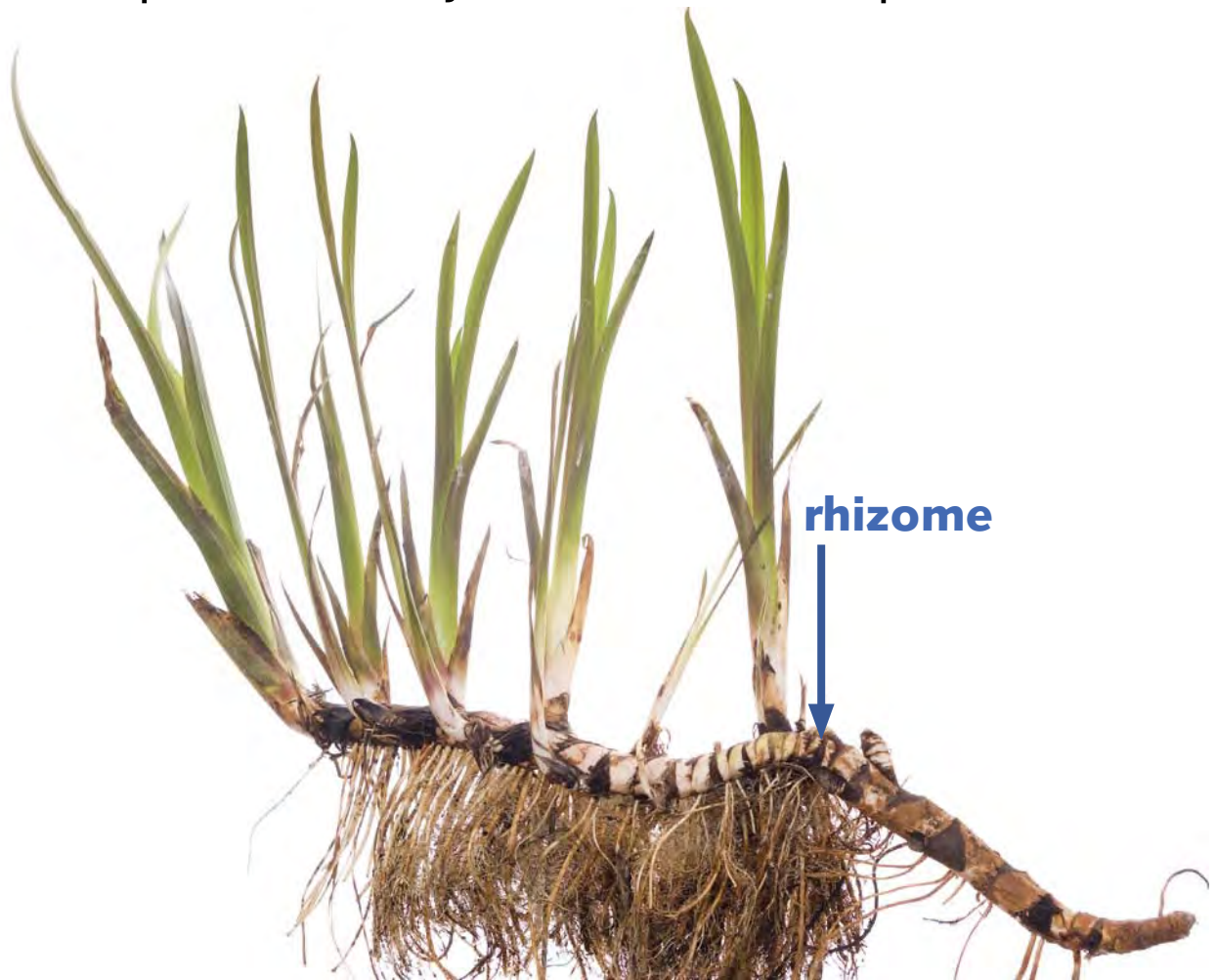
runner





Strawberry plants flower, too. They can grow from runners or seeds.

Underground stems called **rhizomes** can sprout new plants. Rhizomes and runners make plants exactly like the mother plant.



A dense field of tall green grasses with a yellow sticky note pinned to the top right. The sticky note has a red pushpin and contains the text:

*Many kinds of grasses
reproduce from rhizomes.*

Whether they use flowers, cones, special stems, or spores, plants find ways to reproduce.



flowers



cones



rhizome



spores



What You Know

1. Why are pollinators important to flowering plants?
2. How do flowerless plants reproduce?
3. Strawberry plants reproduce two ways. Can you think of other plants that use more than one way to reproduce?

Glossary

conifers (KON-uh-ferz): trees that make cones, including pines, spruce, and other evergreens

nectar (NECK-ter): sweet liquid inside flowers that bees and other animals use for food

pollen (POL-in): tiny grains made by seed plants and transported by wind or animals to a new plant for the purpose of making seeds

pollinators (POL-uh-nay-terz): animals that carry pollen from flower to flower

reproduce (ree-pruh-DOOSS): make more of itself

rhizomes (RYE-zohmz): thick, underground horizontal stems that produce roots and have shoots that develop into new plants

runners (RUN-erz): thin, above ground stems that grow out from the main plant and put down roots to form new plants

spores (SPORZ): tiny, powdery grains made by ferns and mosses in order to grow new plants without seed-making

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Websites

www2.bgfl.org/bgfl2/custom/resources_ftp/client_ftp/ks2/science/plants_pt2/parts.htm

www.backyardnature.net/conifers.htm

www.biology4kids.com/files/plants_reproduction.html

www.fws.gov/pollinators/

About the Author

As a child, Julie K. Lundgren lived near Lake Superior where she once grew a giant turnip and had many pets. Her interest in plants and animals led her to a degree in biology. She lives in Minnesota with her family.



Comprehension & Extension:

- Summarize:

What are some of the different ways plants can reproduce?

How is pollen important to the process?

- Text to Self Connection:

Have you ever watched bees move from one flower to the next?

Have you ever been stung by a bee?

- Extension: *Five Facts!*

Write 5 facts that you learned from reading this book.

Write them in complete sentences.

Sight Words I Used:

make

other

they

use

Vocabulary Check:

Use glossary words in a sentence.

Life Science **PLANTS**



Have you ever wondered about the science all around us? Plants grow and change, the Sun rises to warm the Earth, and matter changes from one form to another. Investigate Life, Physical, Earth, and Technology science topics with Rourke's *My Science Library*. This library explores NSTA science standards with engaging text and colorful images to support readers from kindergarten to third grade. Are you ready to investigate?

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