

# Flowers

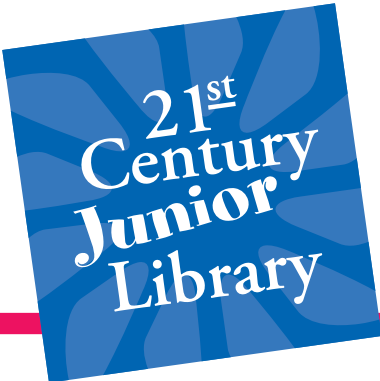
FLOWERS

COLBY

CHERRY LAKE Publishing

21<sup>st</sup>  
Century  
Junior  
Library

*Page intentionally blank*

A blue square with a white sunburst pattern, tilted at an angle. The text "21<sup>st</sup> Century Junior Library" is written in white serif font, centered within the square.

21<sup>st</sup>  
Century  
Junior  
Library

---

# Flowers

---

*by Jennifer Colby*

CHERRY LAKE PUBLISHING \* ANN ARBOR, MICHIGAN





Published in the United States of America by Cherry Lake Publishing  
Ann Arbor, Michigan  
[www.cherrylakepublishing.com](http://www.cherrylakepublishing.com)

Consultants: Elizabeth A. Glynn, Youth Education Coordinator, Matthaei Botanical  
Gardens and Nichols Arboretum, University of Michigan; Marla Conn, ReadAbility, Inc.

Photo Credits: © Neirfy/Shutterstock Images, Cover, 6; © Katrina Leigh/Shutterstock Images, 4;  
© artpritsadee/Shutterstock Images, 8; © Anna Kucherova/Shutterstock Images, 10; © John L.  
Absher/Shutterstock Images, 12; © anuphadit/Shutterstock Images, 14; © Willi Schmitz/Shutterstock  
Images, 16; © NKLRDVC/Shutterstock Images, 18; © Kathy Clark/Shutterstock Images, 20

Copyright ©2015 by Cherry Lake Publishing  
All rights reserved. No part of this book may be reproduced or utilized in any  
form or by any means without written permission from the publisher.

#### **LIBRARY OF CONGRESS CATALOGING-IN-PUBLICATION DATA**

Colby, Jennifer, 1971-  
Flowers/by Jennifer Colby. – [Revised edition]  
pages cm.—(21st century junior library)  
Includes bibliographical references and index.  
ISBN 978-1-63188-035-3 (hardcover)—ISBN 978-1-63188-121-3 (pdf)—  
ISBN 978-1-63188-078-0 (pbk.)—ISBN 978-1-63188-164-0 (ebook)  
1. Flowers—Juvenile literature. I. Title. II. Series: 21st century junior library.  
SB406.5.C65 2014  
635.9—dc23 2014006278

---

*Cherry Lake Publishing would like to acknowledge the work of  
The Partnership for 21st Century Skills.  
Please visit [www.p21.org](http://www.p21.org) for more information.*

Printed in the United States of America



# CONTENTS

**5** Plant Parts

**9** How Seeds Are Made

**13** Flower Helpers

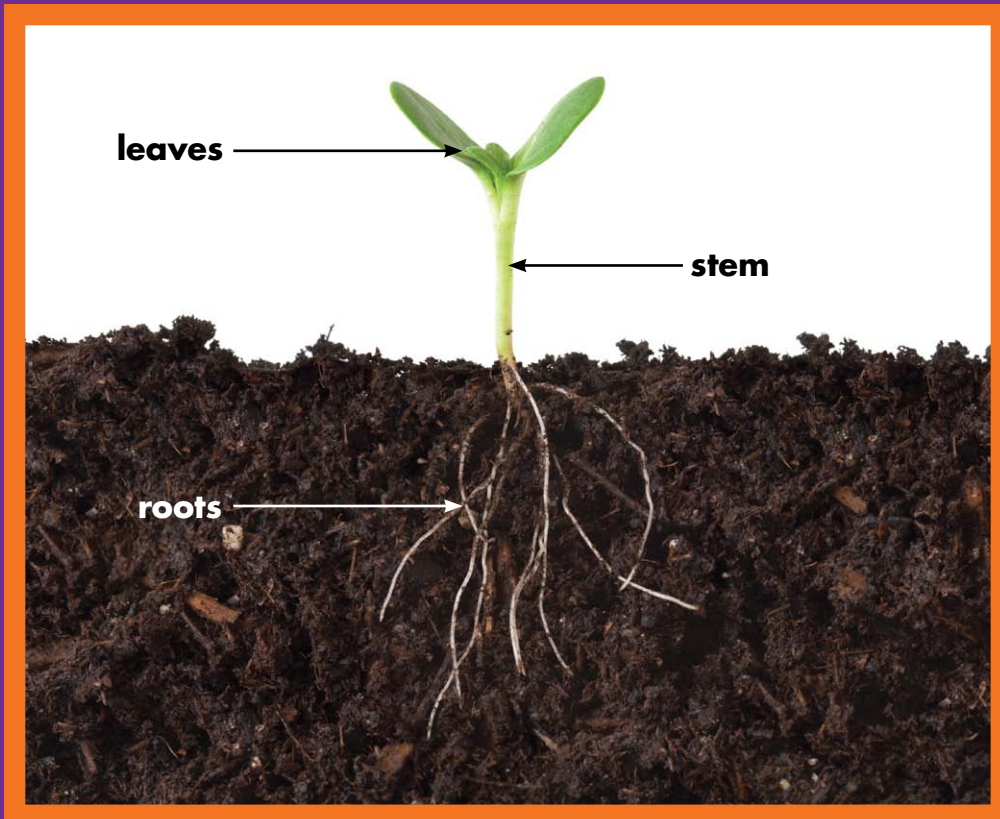
**19** Blowing in the Wind

**22** Glossary

**23** Find Out More

**24** Index

**24** About the Author



A plant has many parts.

# Plant Parts



Each part of your body has a special job. Your lungs breathe. Your ears hear. All the parts work together to help you live and grow.

Did you know that plants also have parts that work together? Roots take in water from the soil. Stems take that water to the leaves. The leaves use that water to help the plant live and grow.





There are many kinds of flowers.

A flower is another part of a plant.  
Flowers look pretty, but they also have a  
special job. They make seeds. Each seed  
can make another plant.

Let's take a closer look at flowers.



Many people's first names are also the names of  
flowers. Who do you know that has a flower name?



Do you see the yellow pollen grains on this flower's stamens?



# How Seeds Are Made



A flower has many parts. Flowers often have **petals**. In the center of the petals are different parts of the flower. The **stamens** look like threads. The **pistil** has a flat top.

Stamens hold **pollen grains**. A pollen grain can be as small as a speck of dust. Each stamen is covered with many pollen grains.



Apples are a fruit that we can eat. There are many seeds inside an apple.

Pollen grains land on top of the pistil and get stuck. Now the flower is **pollinated**. It can make seeds. Part of the pistil changes after the flower has been pollinated. It grows into a **fruit**.

The growing fruit protects the seed inside of it. Some seeds are smaller than a grain of sand. Other seeds are as large as a soccer ball!



**Look!**

Find a flower. A tulip works well. Ask an adult before you pick one! Gently pull off the petals. Can you see the pistil, stamens, and pollen?





Hummingbirds are just one kind of animal that helps flowers make seeds.

# Flower Helpers

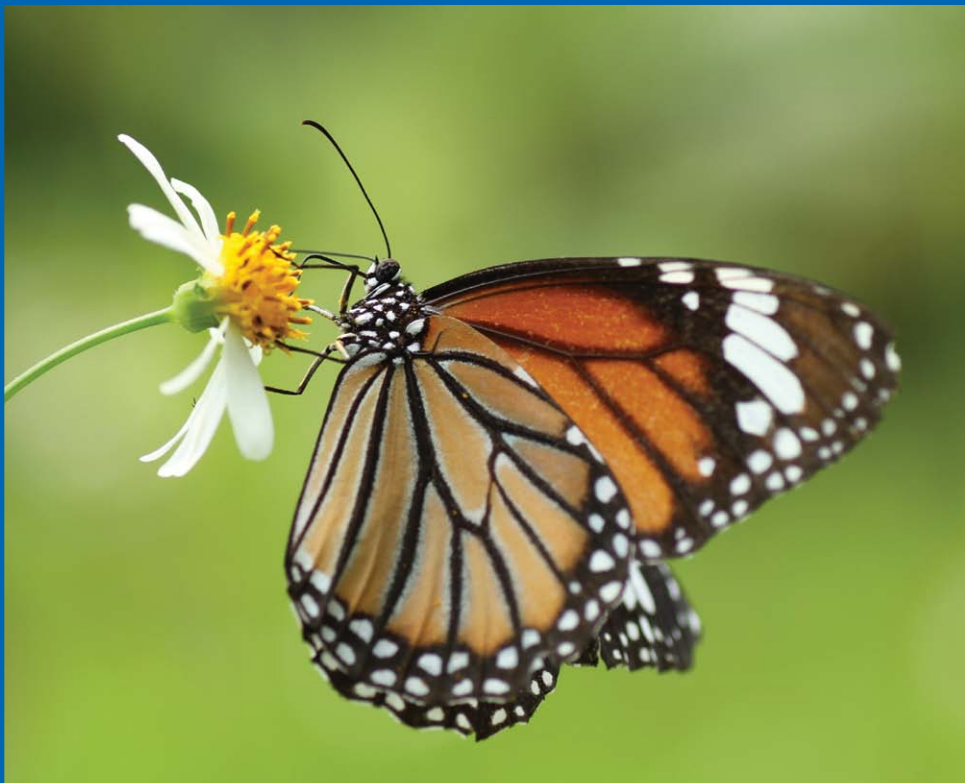


Animals help plants make seeds.

Animals see the bright colors of the flower petals. They smell the scent of the flower.

They come looking for **nectar**.

Nectar is a sweet juice. Some animals drink this nectar. Flowers make nectar to attract animals.



A butterfly feeds on nectar.

How do animals help a plant by visiting its flower? A butterfly lands on top of a flower. The butterfly sucks the nectar of the flower through its long **proboscis**. The butterfly knocks against the dusty stamens as it moves around the flower. The butterfly's legs and body become covered with pollen.

Soon the butterfly flies to a different flower. The pollen grains fall off the butterfly. They land on the flower's pistil. Now this flower is pollinated.



Bees and other animals help pollinate flowers.

There are many other animal pollinators. Watch a flower garden on a summer day. You will see insects flying around. Bees, flies, beetles, and butterflies all pollinate flowers.

Birds and other animals can pollinate flowers, too. Hummingbirds love to drink the sweet nectar of a flower. Bats pollinate flowers at night.



Bats pollinate flowers in deserts. They like pale flowers with strong smells. Pretend you are a bat. What would attract you to pale flowers at night? Did you say "the scent of the flower"? That's right!





Wheat is a plant that people grow for food. It is pollinated by the wind.

# Blowing in the Wind



Grasses and trees also have flowers. Sometimes these flowers can be hard to find. Some flowers are very small. Some do not have any scent or petals. These flowers do not attract animals.

These kinds of plants do not need animal pollinators. Wind blows their pollen around. Pollen is blown from the flower of one plant to the flower of the next plant.



The fruit of the maple tree flies in the wind like tiny helicopters.

Many trees are pollinated by the wind.  
Corn, wheat, and other crops are also  
pollinated by the wind.

Flowers can be pretty or plain. They  
might smell good. That is not their only job.  
A flower's most important job is to make  
new plants.



Cut out some flower pictures from old magazines. Cut  
out some pictures of animal pollinators. Make a collage  
of flowers and their animal helpers.

# GLOSSARY

**fruit** (FROOT) the part of a plant that holds the seeds

**nectar** (NEK-ter) juice made by flowers to attract animals

**petals** (PET-uhlz) parts of a flower that are usually brightly colored

**pistil** (PIS-tl) the part of a flower where seeds are made

**pollen grains** (POL-uhn GRAYNZ) dust-size pieces that help make seeds in flowers

**pollinated** (POL-uh-ney-ted) having had pollen moved to one flower from another

**proboscis** (proh-BAS-kis) a long, thin tube that forms part of the mouth of some insects

**stamens** (STAY-mehnz) parts of a flower that make pollen

# FIND OUT MORE

## BOOKS

Macaulay, Kelley. *What Are Flowers?* New York: Crabtree Publishing Co., 2013.

Whitehouse, Patricia. *Flowers*. Portsmouth, NH: Heinemann, 2009.

## WEB SITES

### **PBS Parents-Activities: Exploring Flowers**

[www.pbs.org/parents/catinthehat/activity\\_exploring\\_flowers.html](http://www.pbs.org/parents/catinthehat/activity_exploring_flowers.html)

Children and parents can explore flowers with these science crafts, conversation starters, and activities.

### **StudyJams-Scholastic: Flowers**

[studyjams.scholastic.com/studyjams/jams/science/plants/flowers.htm](http://studyjams.scholastic.com/studyjams/jams/science/plants/flowers.htm)

Watch a fun video describing flowering plants and the process of reproduction.

### **BBC-Schools Science Clips-Life cycles**

[www.bbc.co.uk/schools/scienceclips/ages/9\\_10/life\\_cycles.shtml](http://www.bbc.co.uk/schools/scienceclips/ages/9_10/life_cycles.shtml)

A virtual laboratory where you can dissect a flower, label it, and put it back together again.



# INDEX

## A

animals, 12,  
13, 15, 16,  
17, 19, 21  
apples, 10

## B

bats, 17  
bees, 16, 17  
beetles, 17  
butterflies, 14  
15, 17

## F

flies, 17  
food, 10, 18  
fruits, 10, 11, 20

## G

grasses, 19

## H

hummingbirds,  
12, 17

## I

insects, 17

## L

leaves, 4, 5

## N

nectar, 13, 14,  
15, 17

## P

petals, 9, 13, 19  
pistils, 9, 11, 15  
pollen grains, 8,  
9, 11, 15, 19  
pollination, 11,  
15, 16, 17,  
18, 19, 21  
proboscis, 15

## R

roots, 4, 5

## S

seeds, 7, 9,  
10, 11

smells, 17, 21  
soil, 5  
stamens, 8, 9,  
11, 15  
stems, 4, 5, 9

## T

trees, 19, 20,  
21

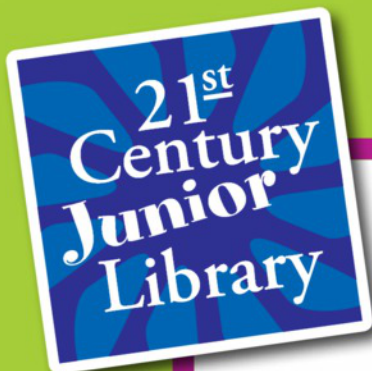
## W

water, 5  
wheat, 18  
wind, 18, 19,  
20, 21

## ABOUT THE AUTHOR

Jennifer Colby is a school librarian, and she also has a bachelor's degree in Landscape Architecture. By writing these books she has combined her talents for two of her favorite things. She likes to garden and grow her own food. In June she makes strawberry jam for her children to enjoy all year long.

*Page intentionally blank*



The 21st Century Junior Library introduces young readers to important core content. Simple activities encourage students to **Look**, **Think**, **Make a Guess**, **Ask Questions**, and **Create**.

The combination of reading and inquiring helps them develop the skills needed to master content and learn and succeed in the 21st century.

---

Read all of these 21st Century Junior Library titles to learn more about plants:

Flowers	Plants We Eat
Growing New Plants	Plants We Wear
Healing Plants	Trees
Plants Need Sunlight	What Is a Plant



GR: L

ISBN 978-163188035-3



90000

9 781631 880353