

Flower Power

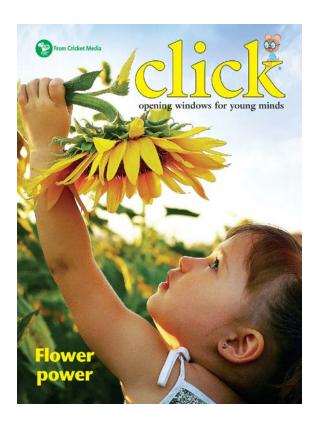
Flowers are more than meet the eye and nose! Students learn all about flowers and how they are pollinated to make seeds that grow into new young plants.

CONVERSATION QUESTION

How do plants use flowers?

TFACHING OBJECTIVES

- Students will read to learn about flowers
- Students will read to learn about how different flowers are pollinated
- Students will read to learn about the life cycles of plants
- Students will determine the structure and function of flower parts
- Students will obtain and analyze information about flowers and pollinators
- Students will construct explanations about the importance of flowers to plants
- Students will create a diagram of a flower and label its parts
- Students will use graphics and writing to communicate information
- Students will create a diagram to show the life stages of a plant



In addition to supplemental materials focused on core STEM skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

SELECTIONS

Pollen Partners

- How Many Flowers?
- Script, ~550L

Expository Nonfiction and Activity, ~550L

• Seed, Plant, Flower, Fruit

Expository Nonfiction and Diagram, ~550L

How Many Flowers?

pp. 8-13, Script

Use this article to help students learn about the structure and function of flowers.

Lexile Score: ~550



RESOURCES

Structure and Function

OBJECTIVES

- Students will read to learn about flowers
- Students will determine the structure and function of flower parts
- Students will create a diagram of a flower and label its parts

KFY VOCABULARY

- pollen (p. 8) fine dust produced by a plant carried to other plants so plants can produce seeds
- stamens (p. 8) the part of a flower that produces pollen
- petals (p. 9) the soft, colorful parts of a flower
- *pistil* (p. 9) the long central part of a flower that extends from the ovary
- anther (p. 9) the part of a flower that contains pollen
- stigma (p. 9) the top part in the center of a flower that receives the pollen
- ovary (p. 10) the part of a flower where seeds are formed

ENGAGE

Conversation Question: How do plants use flowers?

Distribute flowers and ask students to draw a picture of the flower including details to show the different parts. As students engage in this activity have them record questions they have about how a plant uses its flowers.

INTRODUCE VOCABULARY

Draw a large flower where it is visible to the class. Add each of the parts included as vocabulary words. Have volunteers write labels for each part as you draw and describe it. Explain that they will read a pretend conversation with a flower to learn more about these flower parts.

RFAD & DISCUSS

Have students read the script with a partner, with one taking the part of the child and the other the voice of the lily. Encourage them to stop and study the photos to better understand the information shared by the flower. In a whole group, ask students to share what they learned about flowers in an open-ended class discussion. Write their findings on a class chart.

CONCEPT/SKILL FOCUS: Structure and Function

INSTRUCT: Review how each flower part is a part of the function of the flower to be pollinated and produce fruit and seeds. Have students reread the article and use the *Structure and Function* graphic organizer to record the function of each flower part.

ASSESS: Review the students' graphic organizers and discussion participation to assess understanding of the structure and function of flowers.

EXTEND

Language Arts: Informational Writing Students draw a pretend flower that includes all of the flower parts found in the article and their graphic organizer as part of their flower structure. Have them label the parts of their flower and write a caption with the name of their plant creation. Display these diagrams and have students share their thinking behind their designs.

Structure and Function: Flower Parts

Name of	What this plant part is used for (function)
Plant Structure	
Stamens	
Petals	
Pistil	
Anthers	
Pollen	
Stigma	
Ovary	

Pollen Partners

pp. 14–17, Expository Nonfiction, Activity

Use this article to help students obtain information about how different kinds of flowers are pollinated.

Lexile Score: ~550



OBJECTIVES

- Students will read to learn about how different flowers are pollinated
- Students will obtain and analyze information about flowers and pollinators
- Students will use graphics and writing to communicate information

KEY VOCABULARY

- nectar (p. 15) a sweet liquid produced by plants
- pollen (p. 15) fine dust produced by a plant carried to other plants so plants can produce seeds
- perfume (p. 16) a pleasant smell
- blossoms (p. 16) another name for flowers

FNGAGE

Conversation Question: How do plants use flowers?

Ask students if they have noticed the yellow powder on flowers they are familiar with, such as dandelions. Explain that this powder is called pollen and has an important job for the flower. Ask students to hypothesize what the pollen is used for. Encourage questions to engage in an open-ended dialogue about pollen, pollinators, and the purpose of pollen in creating seeds.

INTRODUCE VOCABULARY

Display the vocabulary and ask what the words have in common (they are all related to flowers). Have students search for these words as they appear in the article. Many are found in several places. Ask students to define the words based on context clues. Fill in information or correct misunderstandings as needed.

READ & DISCUSS

Have students read the descriptions of each flower and pollinator with a partner.

Use these prompts to ask students to find the following flower and pollen partners.

- Find a flower that holds lots of nectar but has no smell (cardinal flower).
- Find a flower that only opens at night (moonflower).
- Find a pollinator that has a good sense of smell and flies at night (moth).

CONCEPT/SKILL FOCUS: Analyze Information

INSTRUCT: Review each flower and have students underline or highlight key words that give clues about what an insect would need to pollinate it. For example, moonflowers "stay open all night" and "release a sweet perfume." Explain that this information will help them match the flowers to the correct insect pollinator. Have students underline the clues by each insect on their own and then make the matches.

Answers: 1.A, 2.D, 3.B, 4.E, 5.C

ASSESS: Review what the students underlined or highlighted to see if they are able to determine key information. Check their answers to see if they were able to use this information to make correct matches.

EXTEND

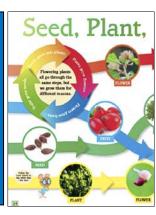
Language Arts: It's a Match! Have students work with a partner, one drawing one of the flowers on page 16, and the other the matching pollen partner on page 17. The students will put their two pictures together on a poster and write sentences about how the insect or bird pollinates the flower.

Seed, Plant, Flower, Fruit

pp. 24–26, Expository Nonfiction and Diagram

Use this article to help students construct explanations about how plants use flowers.





OBJECTIVES

- Students will read to learn about the life cycles of plants
- Students will construct explanations about the importance of flowers to plants
- Students will create a diagram to show the life stages of a plant

KEY VOCABULARY

- nectar (p. 15) a sweet liquid produced by plants
- pollen (p. 15) fine dust produced by a plant carried to other plants so plants can produce seeds
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ENGAGE

Conversation Question: How do plants use flowers?

Go on a plant observation walk to look for flowers, fruits, and seeds. Have students describe what they see without picking the plants apart. You might have students bring notebooks to draw and take notes on what they find or else take photos to display back in the classroom.

INTRODUCE VOCABULARY

Print the vocabulary words where they are visible to the class. Ask students to look for these words in the article. When they find them, have them read the sentences where the words are found with a partner and discuss what the words mean using context clues. Have volunteers share a definition to write next to the word you wrote.

RFAD & DISCUSS

Have students follow the four different plant trails to see each flower, fruit, seed, and plant. Ask students questions to help them understand what this graphic diagram is showing.

- What does the blue path show? (the rose)
- Find the flowers of each plant. How are they the same? How are they different?
- Describe the fruit of the lima bean.
- Describe the seeds of the beech tree.

CONCEPT/SKILL FOCUS: Construct Explanations

INSTRUCT: Review how the diagram is providing information about how plants make flowers that are pollinated to produce fruits and seeds that create new plants. Use the beech tree path to model how to construct an explanation that answers the conversation question: How do plants use flowers? Go from picture to picture along the path to explain the steps involved from flower to fruit to seed to plant.

ASSESS: Have partners take turns choosing one of the four plants and constructing an explanation about how plants use flowers. Have them use the photos to support their explanations.

FXTFND

Language Arts: Plant Path Diagrams Using the article as a model, students choose a plant to create their own plant path. Have them draw pictures of the plant, flower, fruit, and seeds. Working in groups of four, have students glue their illustrations on a poster and draw a path to show the connections between their plant parts.