

The Parts of a Flower

Audience: K-2

Activity Length: Length and duration depend on which activities are chosen

TEKS:

➤ ELA:

Kindergarten: K.1D, K.6C, K.6E, K.6F
 1st Grade: 1.1D, 1.7C, 1.7E, 1.7F
 2nd Grade: 2.1D, 2.7C, 2.7E, 2.7F

Science:

• Kindergarten: K.1E, K.1F, K.13A,

• 1st Grade: 1.1E, 1.1F

• 2nd Grade: 2.1E, 2.1F, 2.12C, 2.13A

Introduction:

Flower Parts: A flower is the part of the plant that makes the seeds. The main parts of a flower are the carpels and stamens. These parts are often found in the center of the flower. There are egg cells in the carpel and pollen cells in the stamen. All flowers have four basic parts: **sepals**, **petals**, **carpels**, and **stamen**. Different flowers have different numbers and shapes of these parts.

Pollination: Bees can help flowers make seeds. Bees usually look for **pollen** and sweet juice. Every flower has pollen, although some flowers do not have sweet juice. The bee's first job is to move pollen from the **anther** of one flower to the female **stigma** of another flower. An anther is the male part of a flower that has pollen grains on it. A stigma is the female part of a flower that receives the pollen. In other words, when a bee gets pollen from a flower, the pollen sticks to the bee. The bee goes to another flower and the pollen falls onto the stigma. Most flowers use this pollen to make seeds. Other flowers use their own pollen to make seeds. Each tiny pollen grain grows into a long tube. These are called **pollen tubes**. They grow until they come to the **ovary**. The ovary is the section of a flower where the pollen tubes meet. Now a male **gamete** from the pollen tube joins the egg from the ovary and a seed is born. When the gamete and egg join, this process is called fertilization.

Germination: **Germination** happens when a baby plant is growing. The plant is between the **cotyledons**. This is a seed. The seed is underground and is collecting nutrients. When a seed starts to grow, we say it germinates. The cotyledons store food for the baby plant inside the seed. When the seed starts to germinate, the first thing to come out is the main root. The skin starts to split, and the tiny shoot straightens, carrying the cotyledon[s] with it. The main root gets bigger. Side roots appear and so do leaves. To grow, the seed's growing conditions are usually damp,



warm, and dark, like springtime soil. A dry seed will stay dormant unless it soaks in some water. Then it will start to germinate.

Materials Needed:

- From Seed to Plant by Gail Gibbons
- Flower Search Worksheet
- Cheese puffs (optional: pipe cleaners)
- What Does It Mean? Worksheet
- The Parts of a Flower Worksheet
- Word Search Worksheet
- How Humans Use and Depend on Plants? Worksheet

Engage:

Read about it! Utilize the book *From Seed to Plant* by Gail Gibbons to teach students about flower parts, fertilization, and germination. This companion resource will introduce the focus topic to students.

- Activity Options:
 - Individual reading activity
 - Teacher read aloud

Explore:

- 1. Weather permitting, take students outside. Ask them to walk around the yard and observe the flowers growing. Utilize the *Flower Search* worksheet below and ask students to record what they see.
 - 1. Students might think about:
 - What does the flower look like? Color? Does it look like it is alive and well, or does it look a little sick?
 - Does it look like the flower still needs to grow a lot, or does it look like it is mostly finished growing?

NOTE: For older students, this could include more detailed notes about their observations, but for younger students, encourage them to draw pictures of what they see, etc.

- 2. Pollination Pictures: This activity is designed to help students better understand how plants are pollinated by pollinators. Students will see that pollen is transferred from one flower to the next.
 - 1. Purchase a container of cheese puffs and pour cheese puffs into a bowl so students can touch the cheese puffs.
 - 2. Print three pictures of flowers on paper and place pictures side-by-side on a table.



- 3. Have students touch the cheese puffs in the bowl and then go down the table and touch their fingers to the flower pictures
- 4. Students will realize that the cheese on their fingers is transferred to each flower picture each time they touch it, like how plants are pollinated!

NOTE: If students do not want to dirty their fingers, pipe cleaners can also be used to represent the fuzzy legs of bees.

Explain:

Students will utilize the *What Does It Mean?* worksheet below to develop understanding of important vocabulary words. Depending on grade level, students can look these words up in a dictionary independently, or the teacher can discuss these terms with students, making it a group activity. They can also utilize the knowledge learned from the book reading to determine the definitions.

Elaborate:

Students will identify the parts of the flower using "The Parts of a Flower" labeling worksheet below. This activity can be adapted for the grade level. For example, this could be a full-class activity led by the teacher rather than completed individually.

To enhance this activity, this activity could be adapted as a model creation/drawing activity where students create their own flower and label their flower model.

Evaluate:

- Word Search: A *Word Search* worksheet is provided for students to complete using vocabulary words they learned throughout the lesson.
- Think About It: Utilizing the below worksheet, ask students how humans use and depend on plants. This activity could be completed as a pair and share activity or even as a full-group discussion. Students will be able to connect



the role plants play in their lives with the science they learned about plant growth.



Name:	

Flower Search

What do you see? Draw y	our observations	below
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Name:	
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What Does It Mean? Vocabulary

Pollination	
Fertilization	
Germination	



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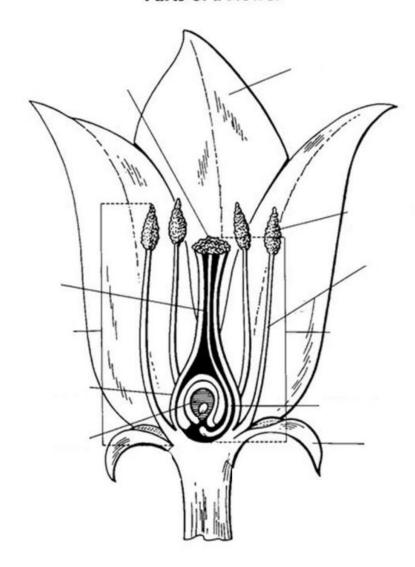
The Parts of a Flower

Flower Parts and Function: Identify the parts of the flower

Word Bank:

anther	stigma	filament	ovary	
sepal	petal	ovule	carpel	
Pollen tube	stamen			

Parts of a Flower





Word Search

Instructions: Find the flower parts in this puzzle from the list below.

Parts of A Flower

J S E Ρ C YΕ G R Р Α В MLΡ S K C X WН R В Ρ R G K0 Т W T C F L G J X R Α $A \cup H$ Н U $\boldsymbol{\mathcal{C}}$ A C V G V T Ρ Ι ٧ WF R D Ζ QΡ L G L GMON5 N N X S Е Ε QWT J V V Ρ Κ В У 0 OAJ NL Ι J W P Ν IND Κ У R L KQIW R Ε Ι W U G U Α L P Q MSHТ Ρ 0 S M J U T R V Q 5 C У 0 Ρ L Ι S M A C Q W V F A M EΝ N A IFT Ι L Т M GΚ Ζ Ρ MKQ N P TR Ι У У Т D W E WHJΕ В H P Х ΧL 0 0 V D G YΙ Ρ В X Е Ε J R EΗ Κ Q GQNUWS WZR R Ζ Т

ANTHER
FILAMENT
OVULE
POLLEN TUBE
STAMEN
STYLE

CARPEL OVARY PETAL SEPAL STIGMA



Name:		

How do humans use and depend on plants?

1.

2.

3.

4.

5.