

Student learning outcome (SLO):



<ul style="list-style-type: none"> • Structure of a flower. 	<ul style="list-style-type: none"> • Pollination and its types
<ul style="list-style-type: none"> • Reproduction and its types 	<ul style="list-style-type: none"> • Structure of a seed and its germination
<ul style="list-style-type: none"> • Difference between monocots and dicots 	

Overview:

The main purpose of this lesson is to understand the structure of flower and its role in reproduction.

Introduction:

Video can be shown to explain structure of flower and germination of seed.

https://www.youtube.com/watch?v=SiFaN2xQg5g	
https://www.youtube.com/watch?v=JSe_VUMymjo	

Keywords:

Calyx, corolla, stamen, pistil, pollination, germination, fertilization, sexual, asexual, reproduction, embryo, cotyledon.

Activities:

1. Collect some flowers and examine them carefully. Cut some of them open. Press some of them into a scrapbook. Try to find out these parts in flowers: sepals, petals, stamen (anther, filament), pistil (stigma, style, ovary, ovules). Use a magnifying glass to see these parts more clearly.
2. Arrange a field trip to nearby garden having flowers. Instruct students spend to spend 10 minutes in observing a group of flowers. Have discussion with students on the following points:
 - Describe relationship between pollination and flower.
 - What pollinators do you see in the field trip?
 - Explain the animal-plant interactions on field trip.

3. Make flash cards of different parts of flower and study these parts by making its model using chart paper.

Material:

Chart papers	Glue stick	Colour box	Scissors
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4. Collect flowers, seeds, leaves. Write labels for them with the name of the plant and whether it is a “**monocot and dicot**”.
5. Make a list of plant products you use in your daily life. (They can be food items or other useful items). Find out how many of them come from monocot plants and how many of them come from dicot plants.

Germination of seed

Developing your understanding of how plants grow. You are going to germinate seeds in jar full of wet paper towels. This is one of those classic plant life cycle activities every student should try. You will be able to see the roots from the sprout take off and the seedling reach to the full growth!

Material required:

i. Glass jar	ii. Paper towels	iii. Seeds
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Procedure:

- Place wet paper towels in a jar. Make sure there isn't excess water in the jar.
- Place the seeds in the jar, in the bottom half of the jar.
- If you use different seeds in different jars, label them.
- Place them in a bright, sunny, window area. Wait for five days. Keep the paper towel damp.
- The seed will usually start to sprout in five days.
- After 10 days you will be able to see roots, stems and even leaves.



Essential questions:

Before starting the lesson, ask some questions to explore the background knowledge of students:

1. What is a flower?
2. How flowers are pollinated?
3. What is seed germination?
4. What difference between pollination and fertilization?
5. How fertilization takes place?
6. Ask students to make ring diagram showing different parts of a flower.
