

Lesson 6: Flowers

Notes For Parents

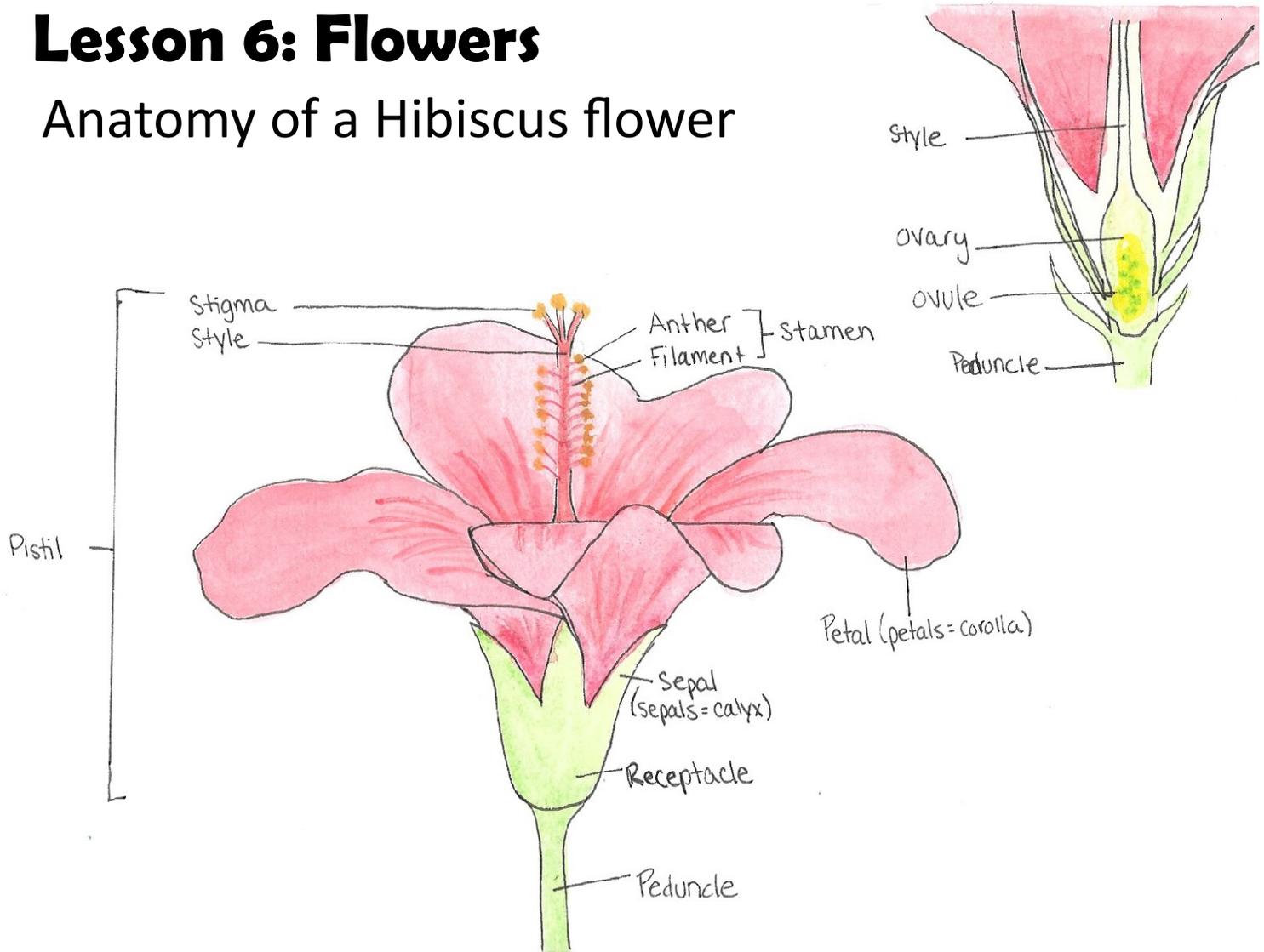
- Learning about flowers is a good way to introduce biology concepts and display the importance of pollination and pollinators..
- The “**Plant Arranging**” hands on activity will require you to gather plants to place in a vase for decoration. Children should have assistance with gathering clippings but this is a the opportunity to allow them to find whatever they think is beautiful and keep in a jar for display.
- You may use any type of container which will hold water and can even let the children decorate it with stickers, paint, or string.
- To help children understand this better you can have them use playdough to create the flower and its parts or plant a pollinators garden!

Plants to grow to attract Pollinators:

- Yellow and red flowers
- Flowers in the daisy family will attract bees and pollinating flies such as gerbera.
- Pumpkins and watermelons are bee dependent
- Winter melon and sweet potato need bees
- Ohi’a flowers
- Buckwheat
- Water Hyssop
- Purslane
- Kalanchoe
- Lantana
- Pentas
- Salvia
- Mamaki
- Mint
- Sage
- Rosemary
- Oregano
- Hibiscus

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Anatomy of a Hibiscus flower



1. **Peduncle:** Stem or stalk of flower.
2. **Receptacle:** Supports the flowers weight as a fruit develops.
3. **Sepal:** The bud around the flower that protects it and prevents it from drying out.
4. **Petals:** Part of flower that draws pollinators. All petals together are called the corolla.
5. **Pistil:** Female reproductive part of flower. Includes **ovules, ovary, style, and stigma.**
 - a. **Style:** The tube connecting the ovary to the stigma.
 - b. **Stigma:** The flat end with a sticky texture for capturing pollen. *Sticky Stigma!*
 - c. **Ovary:** Produces and contains unfertilized seeds which develops into the fruit of the plant.
 - d. **Ovule:** Multiple ovules are contained within the ovary and in event of a successful pollination will become seed of the developing fruit.
6. **Pollen:** Moves down the style tube to fertilize the ovules.
7. **Stamen:** Male reproductive part of a flower. Includes **anther and filament**
 - a. **Anther:** Where the pollen is produced, needs to be transferred to style.
 - b. **Filament:** Holds up the anther.

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Pollination

To produce a fruit an **angiosperm**, or flowering plant, needs to attract pollinators. Flowers serve this purpose perfectly! Since flowers come in many beautiful shapes and colors they attract various insects and birds to help them move the pollen from the anther of one plant to the stigma of another plant.

Pollinators

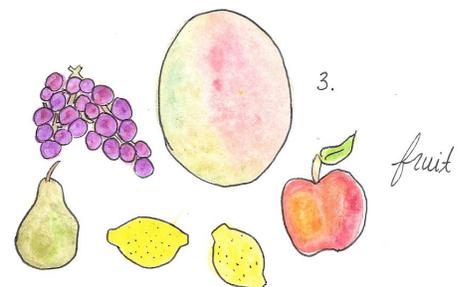
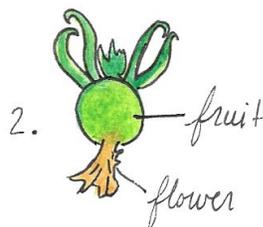
Pollinators are creatures that help move the pollen from one flowers' anther to another flowers stigma.

Creatures that help pollinate include those that feed on nectar such as bees, butterflies and pollinating flies. When these insects land to feed, pollen sticks to their body and is carried to the next flower.

Other pollinators include the wind, other insects such as wasps or spiders and even animals such as birds or bats.



From flower to fruit



Once the pollen is moved from the anther to the stigma the flower it is moved down the style to the ovary until it meets the ovule.

An embryo, the parts of seed that will germinate into a new plant develops and is surrounded by walls of the fruit.

Hands on: Flower Anatomy

Nature Observation:

For this you will need a flower in which the pistil is visible: hibiscus, tulips, lilies or similar. Observe flower and ID parts using all your senses: look closely at all parts, smell if there is a scent, feel the petals, the stems and pollen. Observe and discuss.

How did the flower feel?

Howe did it smell?



Nature Art:

In the box below draw the flower you found. See if you can label the parts you see.

A large empty rectangular box with a black border, intended for drawing a flower. The box is currently blank, providing space for the student to draw and label the parts of a flower they have observed.

Hands on: Plant Arranging

Growing food is part of gardening but many people enjoy plants for the beauty that they provide.

Florists are people who love the beauty flowers provide so much that their jobs are to arrange flowers for people to buy for special occasions. *Have you ever seen a bunch of flowers in a vase on your counter or table? That is a bouquet and was likely prepared by a florist. Why would you buy someone flowers?*

Growing plants in water

To live, plants need water, oxygen, nutrients and support. Some plants can live permanently in water as long as the container they are in supports the stem and you add nutrients to the water.

Another way to temporarily keep plants inside is by taking clippings, or trimmings, of plants and placing them in water as decoration.



Steps:

1. Pick an container for your plants. You can purchase a arrangement vase or repurpose an old jar or vase for this project.
2. Collect flowers from the ground or take shears/scissors to clip the leaves off the plant try to cut the stems at a 45 degree angle for better water absorption.
3. Once you have gathered all your materials allow children to create their arrangement.

Tips:

To gather clippings it helps to cut the stems at a 45 degree angle so the plant can absorb as much water as possible.

Change water in vase every few days to keep it fresh and clean

Who would you like to make an arrangement for?

