Soybean Image: Image by Charles Echer from Pixabay

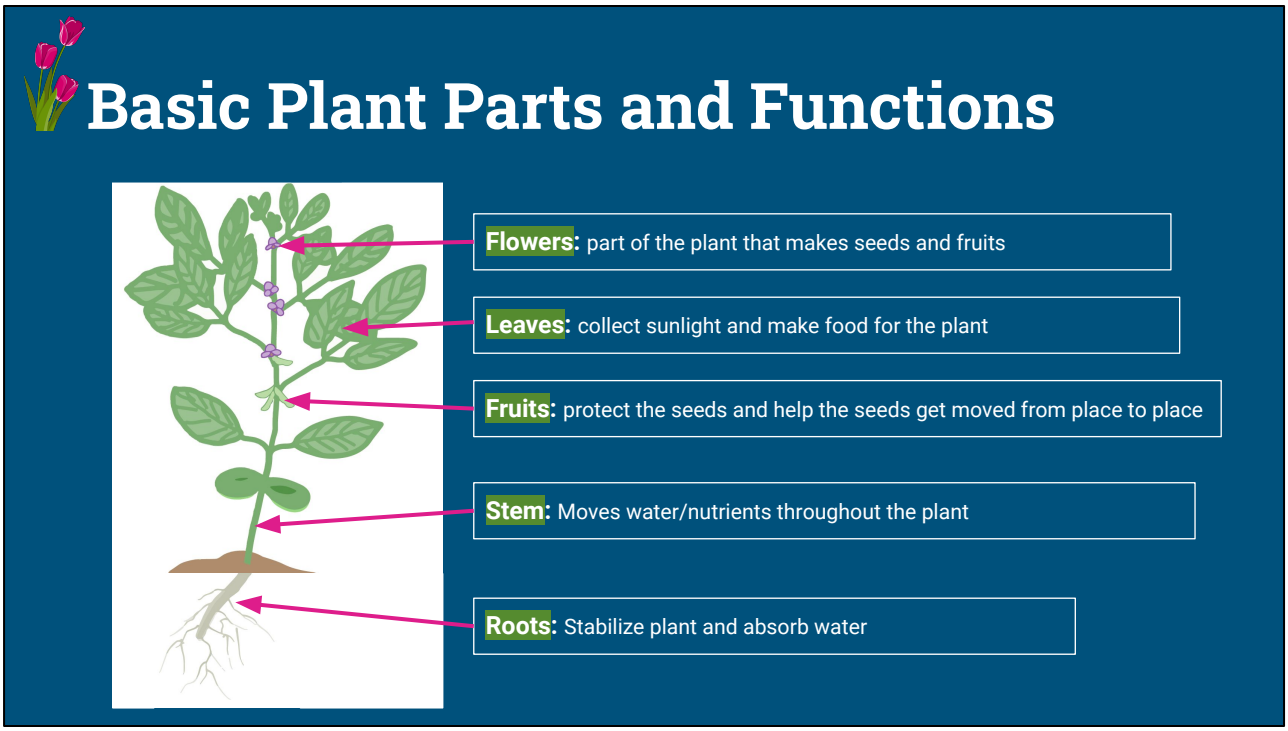
Just like humans, plants have different parts!

What are some plant parts that you know of?

Sunflower: Image by OpenClipart-Vectors from Pixabay

Plants have parts on the inside (internal) and parts on the outside (external) that help them grow, survive, and reproduce.

Field of Flowers Image: Image by Larisa Koshkina from Pixabay



Tulip Image: Image by Jennifer R. from Pixabay

How do more plants grow?

Note: not all plants reproduce via flowers but 85-90% do.

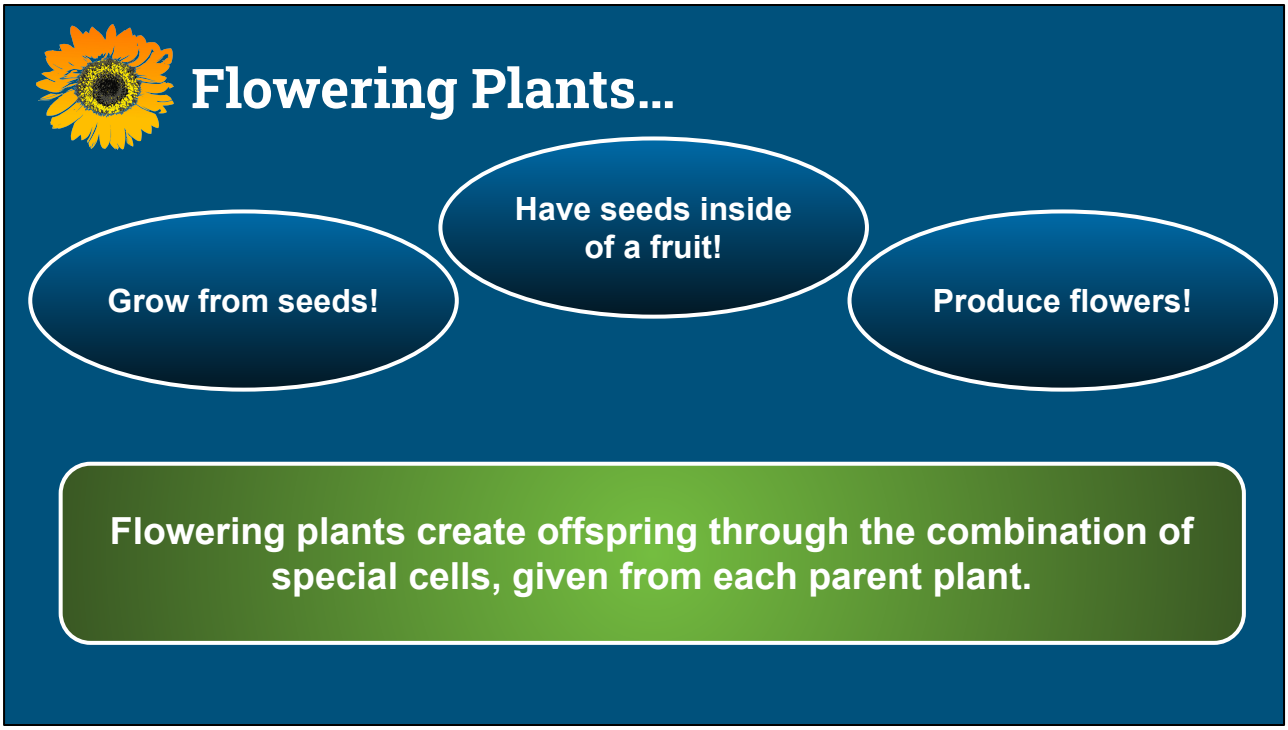
How do more plants grow?

Plants have to reproduce (create offspring) to survive.

This can be accomplished using flowers, cones, or spores.

85-90% of plants reproduce using flowers!

Note: not all plants reproduce via flowers but 85-90% do.



Note: not all plants reproduce via flowers but 85-90% do.

Plant Parts: Flowers

Flowers are the reproductive organ (part) of the plant.

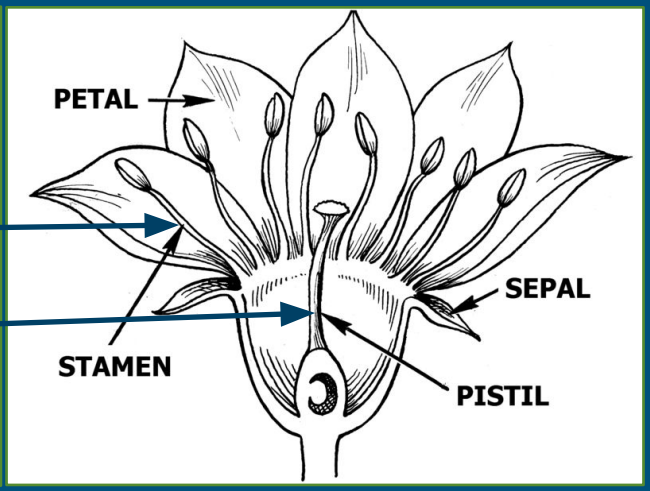
Flower Image: Image by bess.hamiti@gmail.com from Pixabay

Plant Parts: Flowers

Flowers have male and female parts:

Male Part: Stamen

Female Part: Pistil



Flower Diagram: https://commons.wikimedia.org/wiki/File:Flower_Anatomy_(PSF).png

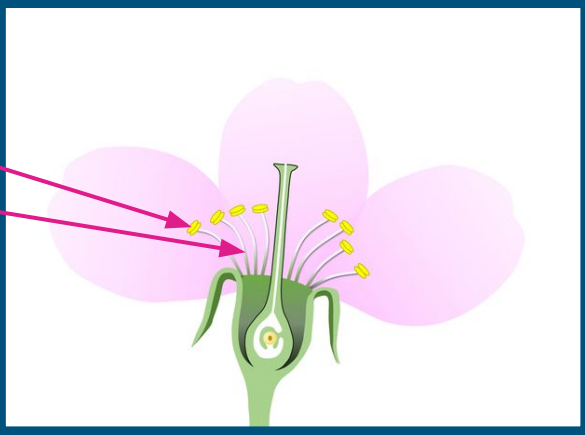
Plant Parts: Flowers

Stamen: the male part of the flower

Anther: produces pollen grains

Filament: supports the anther

Pollen, produced by the anther, contains the male reproductive cell.



Pink Flower Diagram:
https://commons.wikimedia.org/wiki/File:Parts_of_a_peach_flower.png with license:
https://creativecommons.org/licenses/by-sa/4.0/deed.en

Plant Parts: Flowers

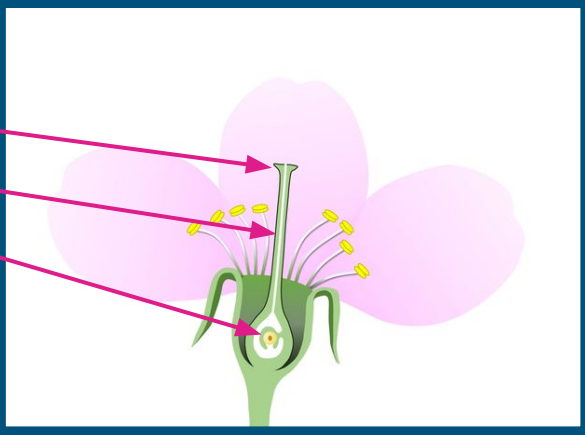
Pistil: the female part of the flower

Stigma: collects pollen grains

Style: allows pollen to pass to ovary

Ovary: produces seeds inside tiny ovules

Ovules contain the female reproductive cell.



Pink Flower Diagram:
https://commons.wikimedia.org/wiki/File:Parts_of_a_peach_flower.png with license:
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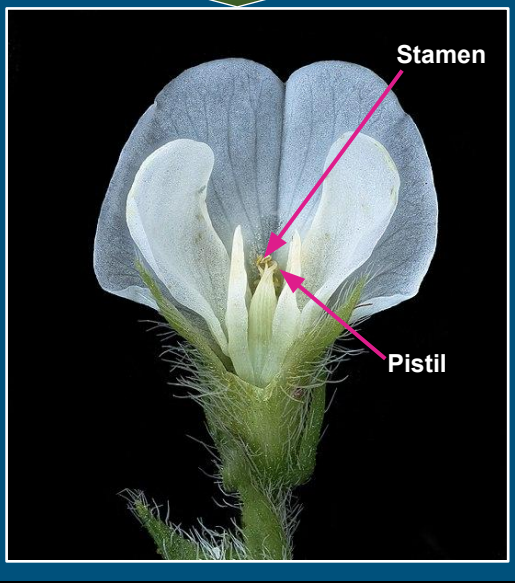
Plant Parts: Flowers

Soybeans have perfect flowers!

If a flower has both male and female parts, it is called a perfect flower.



White Flower:
https://commons.wikimedia.org/wiki/File:Edamame,_side_shot,_plot_2_2020-07-28-15.12.35_ZS_copy_(51494596963).jpg

Pollination

Pollination **occurs when pollen lands on the flower's stigma. If the pollen then joins with an ovule, a seed is produced and ultimately- a new plant!**

Bee Pollen: Image by Myriams-Fotos from Pixabay

How does pollination occur?

Note: not all plants reproduce via flowers but 85-90% do.

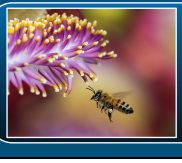
How does pollination occur?

Self-Pollination

pollen moves from anther to stigma on the same flower

Cross-Pollination

pollen moves from anther of one flower to the stigma on another flower

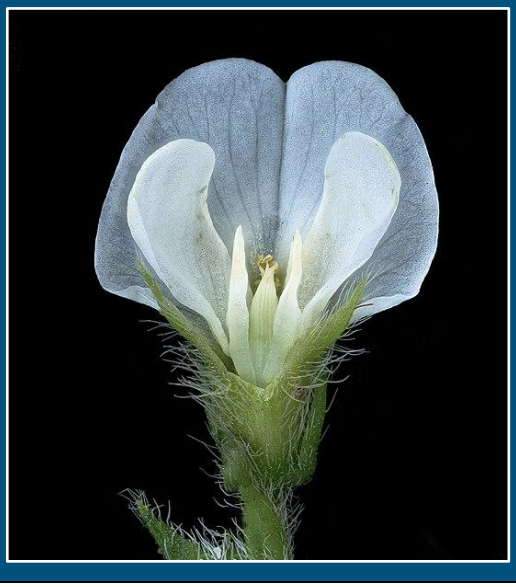


Pollinators, or wind, can carry pollen.
Pollinators can be insects, or other animals such as birds and bats!

Honeybee Image: Image by Pexels from Pixabay

Mention that scent and brightly colored flowers can attract pollinators. Pollen is sticky and will cling to the pollinators, then be moved to other plants as the animal moves. Plants with large anthers frequently utilize wind to blow the fine pollen grains to other flowers.

Let’s create a soybean flower!



White Flower: https://commons.wikimedia.org/wiki/File:Edamame,_side_shot,_plot_2_2020-07-28-15.12.35_ZS_copy_(51494596963).jpg
Purple Flower: Image by Julio César García from Pixabay
Lavender Flower: https://commons.wikimedia.org/wiki/File:Soybean_full_flower_2021-07-16-14.08.54_ZS_PMax_UDR_(51495083274).jpg

Reflection!

What do you notice about your flower?
Can you find the pistil?
Can you find the stamen?
Where would you find the pollen?
What would attract a pollinator to your flower?

Purple Flower: Image by Julio César García from Pixabay