



Soybean Growth Stages



OSU EXTENSION
4-H YOUTH DEVELOPMENT

Image: Image by [Charles Echer](#) from [Pixabay](#)

What do plants need to grow?



Image: Image by [OpenClipart-Vectors](#) from [Pixabay](#)

What do plants need to grow?

Plants Need:

- Sunlight
- Water
- Air
- Warmth (proper temperature)
- Nutrients (food)



Sun Image: Image by [OpenClipart-Vectors](#) from [Pixabay](#)

How do plants grow?



Student answers will vary. Draw connections between human and/or other organisms life cycles as they start small and grow larger or mature.

Image: Image by [OpenClipart-Vectors](#) from [Pixabay](#)

Soybeans

What do you know about soybeans?



Soybean Image: Image by [Julio César García](#) from [Pixabay](#)

Soybean Uses:

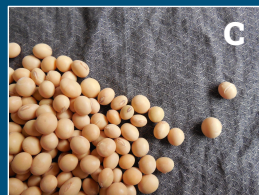


Circle Image: Image by [Gerd Altmann](#) from [Pixabay](#)

Soybean Image: Image by [Євген Литвиненко](#) from [Pixabay](#)

Soybean Growth Stages...

Your group is receiving the following picture cards...



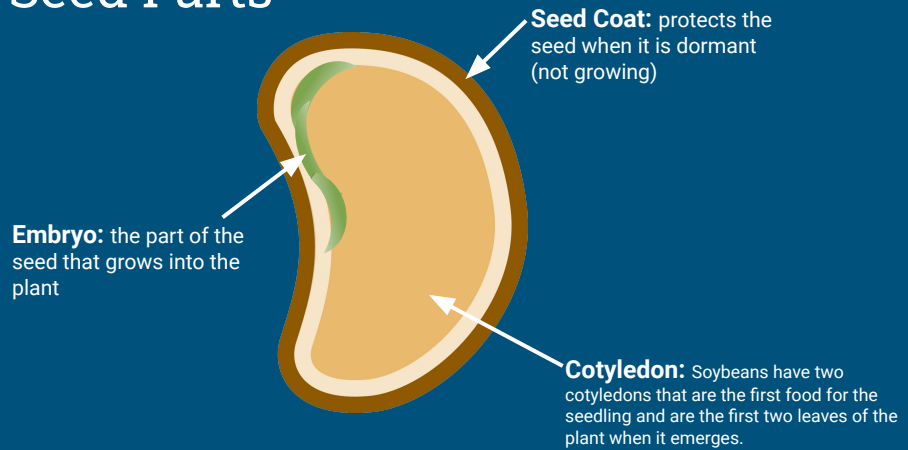
Work together to put them in order from first-last.

Soybean Image: Image by Julio César García from Pixabay

Soybean Growth Stages Information Source:

<https://ksagclassroom.org/ksresource/soybean-growth/>

Soybean Seed Parts



Info:

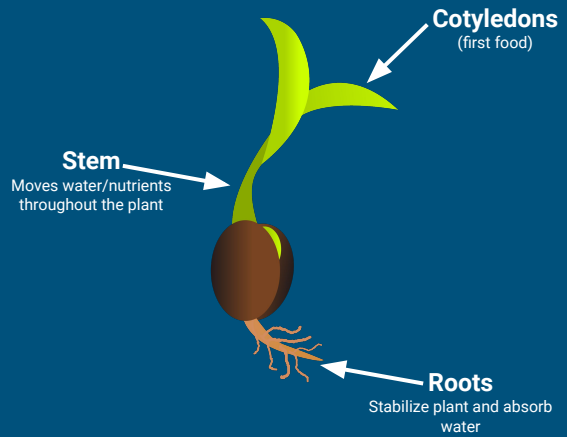
<https://extension.psu.edu/programs/4-h/opportunities/programs/at-home-activities/diss-ect-a-seed>

Germination



Germination: the development of a plant from a seed or spore after a period of dormancy.

When a seed is exposed to appropriate temperatures and water, its period of rest (dormancy) is broken and a plant can begin to develop.



Soybean Seed Image: Image by [Jing](#) from [Pixabay](#)

Bean Seed Illustration: Image by [Ciker-Free-Vector-Images](#)

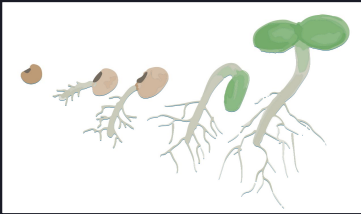
Germination Illustration: Image by [OpenClipart-Vectors](#) from [Pixabay](#)

Emergence

The cotyledons (energy source) are pushed up through the soil.



Now I can see the plant!



Emergence Image: Image by [Julio César García](#) from [Pixabay](#)
Magnifying Glass: Image by [TheUjulala](#) from [Pixabay](#)

Vegetation

Leaves develop along the stem.



Soybean Vegetation Image- multiple rows: Image by [Claudio Correia](#) from [Pixabay](#)

Soybean Vegetation Image- singular row: Image by [Julio César García](#) from [Pixabay](#)

Reproduction

Flowers begin to bloom and pollination occurs. The pods begin to develop and appear green at this time.



Flower Image: Image by [Julio César García](#) from [Pixabay](#)
Pod Image: Image by [Julio César García](#) from [Pixabay](#)

Maturity

The pods now have fully developed seeds. The plant turns brown and dies- it is now harvested!



Mature Soybean Image w/sky: Image by [Alex Norris](#) from [Pixabay](#)

Mature Soybean Image: Image by [Joao Batista Moraes de Oiveira JB](#) from [Pixabay](#)

What have you learned?



**Use the building bricks provided to
create a model of each stage in the
growth of a soybean plant.**

Label your models.

Building Block Image: Image by [Francis Ray](#) from [Pixabay](#)

Sources:

Nancy Zenger-Beneda, A. and Y. M. G. (n.d.). *Soybean growth stages*. Kansas Foundation for Agriculture in the Classroom. Retrieved June 28, 2022, from <https://ksagclassroom.org/ksresource/soybean-growth/>

Pennsylvania State 4-H Youth Development. (n.d.). *Seed dissection: What does the inside of a seed look like?* PennState Extension. Retrieved June 28, 2022, from <https://extension.psu.edu/programs/4-h/opportunities/programs/at-home-activities/dissect-a-seed>