



## ACTIVITY 1: Needs and Seeds

40 minutes

### Objectives:

- Students will describe the life cycle of a soybean plant
- Students will understand what plants need to survive

### Standards:

- **CCSS.ELA-LITERACY.RI.K.3** With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
- **CCSS.ELA-LITERACY.RI.1.3** Describe the connection between two individuals, events, ideas, or pieces of information in a text.
- **NGSS K-LS1-1** Use observations to describe patterns of what plants and animals (including humans) need to survive.



The Pillar of Ag Lit it relates to  
The Relationship Between Agriculture  
and the Environment

### Materials:

- Handout 1 and 2 for “Needs and Seeds”
- Writing and coloring utensils
- Scissors
- Glue
- Soybean seeds (optional)

### Procedure:

1. Use the sample T chart (“Needs And Seeds” Handout 1) or draw a similar example on a whiteboard or shared classroom space. Have students brainstorm things that humans and plants need to survive and record items on the T chart.
2. Read the book “My Family’s Soybean Farm” by Katie Olthoff out loud to the class. After finishing the story, ask students to recall what the soybean plants needed to survive in the book. Allow students to expand beyond plant basics (water, soil, sun) to include items like reduced pests, nutrients in the soil, etc. Add new items to the T chart as they are mentioned.
3. Compare and contrast what humans need to survive versus what plants need to survive. Finish the discussion with a focus on plant needs.
4. Show the students a soybean seed. Using the illustrations **near the beginning of the book**, review how a soybean seed sprouts, grows bigger, blooms and produces a pod, and then is harvested.
5. Explain that students will be able to build a soybean plant lifecycle. Give each student a copy of “Needs and Seeds” Handout 2. Have students cut out the picture circles and match the pictures to the text. (Younger students may just cut and use the pictures for the lifecycle.) Glue the pictures around the soybean lifecycle.

### Extensions and Variations:

- Grow soybeans! Put a few soybeans in a clear sandwich-sized bag along with a damp paper towel. Tape the bag in a bright window. Observe every day to note changes in the seed. Once seeds have sprouted, transfer to a cup of soil and continue growing.
- Have students create a Venn Diagram with the information gathered about human and plant needs on the T-chart.





Name: \_\_\_\_\_

# ACTIVITY 1: NEEDS AND SEEDS

## Handout 1

**HUMANS**

**PLANTS**

A large grid for notes, divided into two columns by a vertical dotted line. The left column is under the heading 'HUMANS' and the right column is under 'PLANTS'. A horizontal dotted line is positioned above the grid, and a vertical dotted line runs down the center. The grid area is currently blank.



Name: \_\_\_\_\_

# ACTIVITY 1: NEEDS AND SEEDS

## Handout 2

