



# GETTING TO KNOW PLANTS

## **Kansas College and Career Ready Standards**

K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive. [Examples of patterns could include that animals need to take in food but plants do not; the different kinds of food needed by different types of animals, thus they are producers rather than consumers; the requirement of plants to have light; and, that all living things need water.]

## **Materials**

- [Wonderful Wheat Kids Connection Magazine](#)
- Wheat Kernels - approximately 100 kernels
- Various seeds - apple, avocado, flower, etc.
- Observation Log - 1 per student
- Quart size Ziploc bag - 1 per student
- Cotton Balls - 3 per student
- Marker
- Chart Paper
- Computer with internet access

## **Overview**

Students will learn what plants need in order to grow, the parts of a plant, and why plants are important to humans.

## **Objectives**

1. The student will use illustrations to label a plant's parts.
2. The student will observe seeds and plants. Students will connect beginning stage (seed) to end stage (plant).
3. The student will identify the things that plants need in order to survive.
4. The student will construct a sprout house and observe the different stages of a plant's growth.

## **Background Information**

Access the **Wonderful Wheat - Kansas Kid Connection** magazine for information about how a wheat plant grows, how it is used, and why it is important to us.

### **Subjects**

Science, ELA

### **Grade Level**

Kindergarten

### **Time Required**

Three 45-minute class periods

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## Instructional Format

### Engage

Play the video, [Farmers Feed the World](#), to engage students in the many uses of plants grown by farmers and how they are used. Ask students what plants they observed in the video. Remind students the farm animals eat plants and seeds from plants too!

OR

Play the video, [Dawn to Dusk](#), to engage students in the many uses of plants grown by farmers and how they are used. Ask students what plants they observed in the video. Remind students the farm animals eat plants and seeds ( grain) from plants too!

### Explore

Pass out different seeds to students, allowing a variety within small groups. Give students time to observe the seeds. Then ask students to describe what they observed. Observations should include size, color, feel, shape, texture, smell, etc.

Record student thoughts on an anchor chart.

### Explain

Facilitate a class discussion about seeds with the following questions:

“What is a seed?”

“What do you already know about seeds?”

“Why are seeds important to us and why are we important to them?”

Give the students 1 minute for each question and do a ‘turn and talk’ with their shoulder partner. After each question, allow a few of the students to share their answers with the class.

Some possible students’ responses:

‘seeds are in our food’

‘seeds are hard, color, other physical characteristics’

‘seeds makes pumpkins, or other foods’

‘plants grow outside’

‘plants have leaves, and other physical characteristics’

After these responses, pose the question: Where do you think plants come from? (Responses given by teacher choice, i.e. partner share, share out with anchor chart)

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## Explore

Students will create a sprout house (directions below). They will also be given an observation chart to keep track of how the plant changes day to day. Give the students 5 minutes each day to record/draw their observations. Students may see roots appear, a stem, later there will be leaves. As each stage of development appears, introduce the stage and vocabulary. Be sure students are aware of the need for the cotton ball and water, as well as, sunlight these are necessary for growth. This may be in the form of teacher talk and explanation.

## Sprout House Directions

1. Pass out supplies. Give each student 1-quart sized zip lock bag, 3 dampened cotton balls, 3-4 wheat seeds
2. Use construction paper to cut out a triangle for the roof of the Sprout House.
3. Place the cotton balls inside the bag.
4. Drop seeds in, near the cotton balls, and leave the bag open to get air. Bags will be sealed in the next step.
5. Have students write "My Sprout House" and their name to the roof template. Cut out the roof and tape it to the top of the sealed bag.
6. Tape sprout houses to a sunny window.
7. Observe and record findings on the observation log.



## Stages of Development and Vocabulary for observation explanations

**Root-** the part of a plant that grows underground, gathers water from the ground, and holds the plant in place.

**Stem-** the main part of a plant, the stem supports other parts of a plant such as leaves.

**Leaves-** part of the plant attached to the stem. Responsible for absorbing sunlight and air. Sunlight and air are necessary for growth.

## Explain

Show the students: [Parts of a Plant](#) with Dr. Bionic. After the video, give the students time to 'partner share' about what they learned from the video and when they observed these parts on their observation logs.



## Evaluate

Pass out page 3 of **Wonderful Wheat - Kid Connections Magazine** and have students complete the diagram of the parts of a wheat plant. Some of the parts, such as awns, may be unfamiliar to students and the teacher will need identify these parts for students. Verbally assess students on why plants need the roots, stems, and leaves to survive or assess using the matching worksheet activity provided in this lesson.

