

Lesson 2 – Growing Wheat in Kansas History

Day 3 – Growing Wheat

Day 4 – Preparing Soil and Planting Wheat

Goal: To introduce the growth of winter wheat.

Objectives for Students by Grade Level:

K-2 To recognize wheat plants in different stages.

K-2 To understand the planting process.

2 To understand that machinery lets farmers work more land.

Day 3 – Growing Wheat (15-30 minutes)

Materials to pull from trunk:

- Laminated young wheat plants
- Worksheet
 - “Parts of the Wheat Plant”

Materials supplied by teacher:

- Wheat seeds (kernels)
- Photocopies of worksheet (one per child)
- Crayons
- Potting soil
- Bowl, strainer or colander
- Towel
- Pot to plant wheat in

Day 3 – Growing Wheat (continued)

Begin the seed growth activity. See next page. Have children observe and report daily on changes they observe in the seeds and in the leaves after the sprouted seeds are planted and growing.

Introduce the parts of the wheat plant with the laminated wheat showing roots, stems, and leaves. Use the coloring page illustrating parts of the wheat plant as appropriate.

Suggested introduction:

Long, long ago wheat came from grasses.

Winter wheat grows especially well in Kansas. Seeds are planted in the fall about the time we go back to school. The plants stop growing when cold weather comes. Have you ever helped your parents plant grass seed in the fall?

The wheat plants rest in the winter, then grow again in the spring. As the weather gets warm, the wheat gets warm, the wheat grows tall and begins to form seeds at the top. The wheat turns golden and is ready to harvest in the summer, in June and July, after you are out of school.

Read: *Winter Wheat*

Activity:

1. Show students the laminated young wheat plant. Discuss what they are looking at.
2. Have students color the “Parts of a Wheat Plant” worksheet and add it to their “Wheat in Kansas” booklet.

Day 3 – Growing Wheat (continued)

Activity: Seed Growth

Objective: To observe how wheat grows from seed.

Materials needed:

- wheat seeds/kernels
- bowl
- strainer or colander
- towel
- soil
- pot to plant wheat in

Do this:

Have students orally or pictorially record their observations of wheat growth during this activity.

1. Wash $\frac{1}{4}$ cup of wheat seeds. Cover seeds with clear water and soak in water overnight.
2. Drain the water and place the soaked seeds into the strainer or colander and set into a larger bowl. Cover with a towel to keep out of the light. Sprouts grown in dark are tender.
3. Two or three times a day, remove the towel and let the children rinse the seeds thoroughly under cool running water. The seeds should stay moist and not spoil.
4. The seeds will sprout in 3-5 days. Have children monitor the growth. These sprouts are tender and edible until leaves form, when they may be tough.
5. Plant the sprouted seeds in soil in a large pot and watch how fast the wheat grows. Winter wheat will probably not form seeds without the winter dormancy stage, but the wheat will grow for several months in a classroom window if watered regularly. (A few seeds could also be planted in potting soil in individual cups for each child.)

Day 4 – Preparing the Soil and Planting Wheat (15 – 30 minutes)

Materials to pull from trunk:

- Photographs
 - #4 – Field with wheat stubble
 - #5 – Planting wheat

Materials supplied by teacher:

- Tray filled with soil
- Wheat seeds/kernels

Day 4 – Preparing the Soil and Planting Wheat (continued)

Note to Teacher:

Prior to this activity, locate a shallow tray or pan and fill it with soil.

Suggestions for introducing the activity:

To turn the wheat stubble under and prepare the ground for planting, farmers disk the soil. Long ago horses and machines helped farmers do this work.

A disk has a row of sharp round metal parts that look like wheels. These turn as the disk is pulled. Disks are a kind of plow that cut the ground and loosen the soil so new seeds can grow better.

When the rain comes, the seeds begin to grow into tiny plants. Today drills are attached to tractors. In the past horses and mules pulled the drill.

Photographs #4 & 5: Use these photos to discuss planting wheat.

Activity: Drilling Wheat – Simulation of the three functions of the grain drill.

- Fill a tray or pan with soil.
- Have child make a trench in the soil using his or her fingers to simulate the indentation made by the drill.
- Have another child drop a seed in this trench, then drop another seed a few inches farther along in the trench.
- Another child will cover each of the seeds to simulate the functions of the grain drill.