

# Little Red Hen Bakes a Cake

## Grade Level(s)

2<sup>nd</sup> grade

## Estimated Time

30 minutes

## Purpose

Students will learn about the stages of wheat from farm to plate and the technology used by farmers to harvest and process the kernels.

## Materials

### ▪Links:

- Website with downloadable worksheets and activities [www.linncoag.com](http://www.linncoag.com) - 2020/21 virtual lesson drop down tab-November
- Instructional video: <https://www.youtube.com/watch?v=4xqd32PSf0Q>
- Book: <https://drive.google.com/drive/folders/133PUy-OZKOIVKlfz0hnMAjT2PET7DZny?usp=sharing>
- Wheat harvest video: <https://www.youtube.com/watch?v=475FcEdBrzg>

### ▪Worksheets:

- Technology of a combine
- Wheat threshing activity: How to do it!
- Cake recipe for taking home
- From seed to harvest review

### ▪Other:

- Wheat sample
- Wheat flour sample
- Little plats or napkins

## Vocabulary

**Winnow:** to remove (the unwanted coverings of seeds) from grain using a current of air

**Forage:** grasses and other plants that are eaten by animals (such as livestock)

**Wheat:** a widely cultivated grain that grows in tight clusters on tall stalks and which is typically ground into flour to be used in breads, baked goods, and pasta

**Combine:** a machine that cuts crops (such as corn or wheat) and separates the seeds of the plant from the rest of the plant

**Thresh:** to separate the seeds of crops like wheat, corn, or dry beans from the plant

**Chaff:** the debris that is separated from the seed when grain is threshed

## Interest Approach – Engagement

1. Show the class stalks of wheat, wheat seeds and flour. Ask if they can identify each item and how the items are related.
2. Explain that each item represents a step in the process of making flour. Wheat grows in a field and produces tiny seeds. The seeds are then removed and ground into flour.
3. Ask the students to list some of the foods that can be made using flour.

## Background - Agricultural Connections

Wheat is a type of grain. It is useful as a livestock feed, but most wheat is used for human consumption. The wheat we eat comes from the seeds of the wheat plant. To harvest the seeds, the wheat must be cut, **threshed**, and **winnowed**. A large machine, called a **combine**, is used to cut the wheat plant and separate the seeds (the grain) from the stem and the protective outer hull. The action of shaking the seeds loose is called threshing. Winnowing separates the seeds from the rest of the plant. The grain is collected, and the rest of the plant, referred to as the **chaff**, is used for animal bedding or **forage**. A combine is a very expensive piece of equipment, so many wheat farmers hire a custom harvester. Custom harvesters take their combines across the country during the wheat harvest, going from farm to farm cutting wheat.

Once the wheat seeds are harvested, they are loaded into trucks and driven to grain elevators where they are weighed, tested, and stored. The wheat seeds are then transported to a mill to be ground into flour.

## Procedures

1. Read or watch the read-aloud video of the story Little Red Hen- available on website.
2. Discuss the steps the little red hen followed to make her cake.



3. Watch the instructional video if not scheduled for a zoom presentation.
4. Ask the students, “who grows the wheat that is ground into flour and sold at the grocery store?” Explain to the students that while the little red hen probably grew a small patch of wheat, most wheat farmers grow large amounts of wheat in big fields.

5. Threshing wheat activity:
  - Distribute one wheat head and threshing worksheet to each student. Help the students identify the stalk and the head of the plant. Explain that inside the head of the wheat plant are wheat seeds.
6. Ask the students to predict how many seeds are in their head of wheat and record their prediction.
7. Model to the students how to thresh the wheat by hand using the wheat threshing worksheet as a guide. Ask the students to count the seeds they removed. Were their predictions, right? Would they have enough to make a cake?
8. Watching the wheat harvest video and pass out the combine worksheet. Review as a class. What are the similarities and differences between what they have experienced, what the little red hen did in the story and how farmers grow and harvest wheat?
9. Send cake recipe home with students.
10. Optional: from seed to harvest review sheet.

### **Organization Affiliation**

Original NAITC lesson plan “The little Red Hen” was modified by Morgan Hibbs.

<https://www.iowaagliteracy.org/lesson-plans/national-lesson-plans>

### **Agriculture Literacy Outcomes**

Culture, Society, Economy and Geography:

T5.K-2.a: Discuss what a farmer does.

T5.K-2.f: Trace the sources of agricultural products used daily.

Science, Technology, Engineering and Math:

T4.K-2.b: Recognize and identify examples of simple tools and machines used in agricultural settings.

Plants and Animals for Food, Fiber and Energy:

T2.K-2.a: Explain how farmers work with the lifecycle of plants and animals to harvest a crop.

### **Iowa/ Common Core Standards**

Ecosystems:

2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow.

2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.