

SC Farm Bureau Ag in the Classroom P.O. Box 754 Columbia, SC 29202 803.936.4237

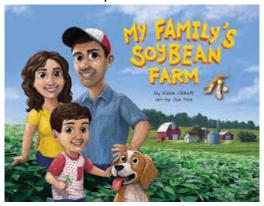
SC Ag in the Clasroom scagintheclassroom www.SCFB.org/aitc

September 2025 Monthly Book

My Family's Soybean Farm Written by: Katie Olthoff Illustrated by: Joe Hox

Grade Levels Suggested:

Lesson by: Allison Whiten



Alexander lives on a soybean farm. What's a soybean farm and what's it like to live there? Join Alexander on his family's farm as he shows us how soybeans grow, are harvested, and are used.

Click here to watch the read aloud:

My Family's Soybean Farm

Scan here for Lesson Slides!



Google Slides

Science Lesson

Grade Level:

Fifth

Time length of the lesson:

• 1 hour

Standards Addressed:

- Fifth
 - 5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Objective of the lesson:

• I can develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

National Agricultural Literacy Outcomes:

- Describe how farmers/ranchers use land to grow crops and support livestock. (TI.K-2.a)
- Describe the importance of soil and water in raising crops and livestock.
 (T1.K-2.b)
- Explain how the interaction of the sun, soil, water, and weather in plant and animal growth impacts agricultural production. (T1.3-5.b)
- Recognize the natural resources used in agricultural practices to produce food, feed, clothing, landscaping plants, and fuel (e.g., soil, water, air, plants, animals, and minerals). (T1.3-5.e)
- Identify examples of feed/food products eaten by animals and people.
 (T2.K-2.c)
- Identify the importance of natural resources (e.g., sun, soil, water, minerals) in farming. (T2.K-2.e)
- Recognize that agriculture provides our most basic necessities: food, fiber (fabric or clothing), energy, and shelter. (T3.K-2.b)
- Discuss what a farmer does. (T5.K-2.a)
- Explain why farming is important to communities. (T5.K-2.b)
- Trace the sources of agricultural products (plant or animal) used daily.
 (T5.K-2.f)

Materials list:

Computer

- Projecting screen
- Pencil
- Paper
- Rubric

Instructor procedure:

- The teacher will read or listen to My Family's Soybean Farm.
- The teacher will read the I can statement on slide 3.
 - I can develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.
- The teacher will share the vocabulary on slide 4:
 - Decompose— to break down through chemical change; rot
 - Matter—Anything that takes up space
 - Cycle-a series of events or operations that happen again and again regularly and usually lead back to the starting point.
 - Crop-Crops are plants that farmers grow. Corn, wheat, and beans are examples of crops
 - o Harvest-the gathering of ripe crops.
 - Plow-turning and breaking up soil to prepare a seedbed for crops, burying weeds and crop residues, and aerating the soil to promote healthier growth.
 - Fertilize-to make plants more capable of producing new plants or stronger plants by adding natural or chemical substances
- The teacher will explain that energy moves in cycles by reading the following statements on slide 5.
 - "PLANTS AND SOIL ARE CYCLES. Plants grow in soil. They provide food for animals. Animals provide food for other animals. Plants and animals die and decompose, contributing to new soil. New plants grow." (n.d.)
 - "THE SUN IS A CYCLE. The sun provides warmth and light for all of the Earth's circles. Without the sun, plants and animals would not survive. The sun binds us together." (n.d.)
- The teacher will show slide 6 with the energy model.
- The teacher will explain that matter moves through plants, animals, decomposers, and the environment.
- The teacher will click on the images in order to go to a slide describing that item and where it gets it's energy from.

- When done with that slide the teacher will click the arrow to go back to the energy model slide.
- Whole on slide 6 the teacher will ask the following questions:
 - What would happen if one part of our model were missing? (ex.
 What if there were no soil, or soybeans?)
 - The energy could not be transferred to the next level of the model.
 - What would happen if the soybeans were switched out with another crop like corn?
 - The energy model would stay the same.
- The teacher will review directions and the rubric for the energy model poster project
 - o Choose a crop from slide 7.
 - o Determine the energy cycle of the crop (research if needed).
 - Explain the energy cycle.
 - o Develop a rough draft.
 - o Revise your rough draft.
 - Put your energy model on a piece of paper for the final copy.

Assessment:

Assessments

- o Informal:
 - Questioning throughout the lesson.
- Formal
 - Energy web poster scored using the rubric

• Early finishers:

o Early finishers will use the <u>Soybean Choice Board</u>

Additional resources that enhance the lesson:

Activities:

- GM Soybean Seed Kit Curriculum Matrix | National Agriculture in the Classroom
- <u>Living Necklace Kits Curriculum Matrix | National Agriculture in the Classroom</u>
- Seeds for Terrariums Curriculum Matrix | National Agriculture in the Classroom

- T. Marzetti Virtual Field Trip Curriculum Matrix | National
 Agriculture in the Classroom
- Test Tube Hydroponics Kit Curriculum Matrix | National
 Agriculture in the Classroom

Ag Mags:

- o FINAL SC Soybean Ag Mag
- Soybean Aq Maqs
- o Ag Today: Issue 1
 - Teacher Guide
- o Ag Today: Issue 3
 - Teacher Guide
- o Ag Today: Issue 6
 - Teacher Guide

Resources:

- o My Family's Soybean Farm Educator's Guide
- Journey of a Gene Curriculum Matrix | National Agriculture in the
 Classroom

Books:

- Full of Beans: Henry Ford Grows a Car Curriculum Matrix |
 National Agriculture in the Classroom
- Auntie Yang's Great Soybean Picnic Curriculum Matrix | National
 Agriculture in the Classroom

Additional Lesson Plans:

- o Bean Seed Cycle
- August 2020 Lesson Plan
- Lesson from Feeding Minds Press
- Bean Seed Cycle Curriculum Matrix | National Agriculture in the Classroom
- <u>Topsy-Turvy Soybeans Curriculum Matrix | National Agriculture</u>
 in the Classroom
- Full of Beans: Henry Ford Grows a Car Curriculum Matrix |
 National Agriculture in the Classroom

- From Soybeans to Car Parts Curriculum Matrix | National
 Agriculture in the Classroom
- Oilseed Crops Curriculum Matrix | National Agriculture in the
 Classroom

South Carolina Agricultural Information

- o State Agricultural Facts
- TOP COMMODITIES
- o <u>Teacher Center | National Agriculture in the Classroom</u>
- o Food & Farm Facts | South Carolina Farm Bureau

Resources:

Crop listed	The student chose a crop from the board.	/5
Energy Cycle is correct	The energy cycle shows the movement of energy from the sun, crop, livestock, and then consumer.	/5
Rough Draft	Rough draft is provided with edits shown.	/5
Presentation	The poster is neat, colorful, and shows best effort	/5
Total: /20		



References:

Benchmarks related to agricultural literacy and academic ... National Agricultural Literacy Outcomes. (n.d.).

https://cdn.agclassroom.org/nat/data/get/NALObooklet.pdf

Oklahoma Ag in the Classroom. (n.d.). Agriculture is a cycle. circles.indd. https://cdn.agclassroom.org/ok/lessons/primary/cycle.pdf

Standards. South Carolina Department of Education. (n.d.). https://ed.sc.gov/instruction/standards/

