



**Kansas Foundation  
for AGRICULTURE  
IN THE CLASSROOM**

**K-2**

*Teacher Toolkit*



# Welcome

We are here to help you weave agriculture into your everyday teaching with ready-to-use resources. Our goal is to make agricultural connections feel natural and meaningful, giving you simple ways to enrich core subjects with real-world relevance.

## Why use agriculture to teach core learning?

Using agriculture to teach core subjects enhances student learning by making lessons more engaging, practical, and relevant. By connecting academic concepts to real-world applications, students gain hands-on experiences that reinforce key skills. Agriculture naturally integrates multiple disciplines—improving literacy through writing about food systems, enriching social studies through global food security discussions, and deepening science and math understanding through environmental data and problem-solving. This interdisciplinary approach fosters critical thinking, collaboration, and creativity.

Agriculture is also a cornerstone of our economy and community—especially in Kansas, where one in every eight jobs is tied to the agricultural industry. Farming and ranching contribute billions of dollars to the state's economy and are vital to sustaining rural communities. From the food we eat and the clothes we wear to the fuel that powers our lives, agriculture plays a role in nearly every aspect of daily life. That makes it not only a powerful teaching tool, but also a gateway to understanding essential systems and exploring meaningful career paths.



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# Where Do I Start?

Get connected with Kansas Foundation for Agriculture in the Classroom!



Follow us on Facebook to get information on our resources, scholarships, grants and events.

<https://www.facebook.com/ksagclassroom>

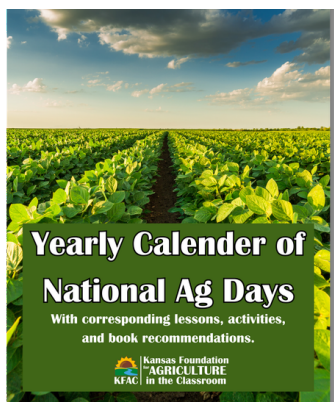


Get Connected

Subscribe to the monthly Kansas Foundation for Ag in the Classroom newsletter to receive program updates, classroom grant opportunities, lesson ideas and so much more!

## Kansas Kids Connection Magazines

Kansas Kids Connection magazines are free resources that supplement KFAC's Educator's Guides with additional activities and information about Kansas agriculture.

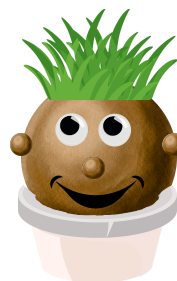


## Ag Days Calendar

There is a national day for almost everything agriculture related, from popcorn to pizza to pollinators. Our calendar pairs these days with K-12 lessons and activities, making it easy to bring agriculture into your classroom in a fun and meaningful way.

## Lesson Plan Kits

Our classroom kits are hands-on, grade-specific, and connected to state standards, linking core classroom topics to agriculture in a meaningful way. Follow us on Facebook to order a complete kit during our March or August release windows. Prefer to get started sooner? All of our kit lessons and supply lists are available to download for free on our website so you can do the activity any time of year.



# I'm Warming Up

Continue building your KFAC involvement by growing your toolkit with these opportunities.



## Resource Posters

Kansas Foundation for Agriculture in the Classroom provides a wide range of resources, including lesson plans, activities, and multimedia materials, to help educators incorporate agriculture into their teaching. These resources support hands-on learning, enhance student engagement, and connect agricultural concepts to various academic subjects.



## Lesson Plans

Kansas Foundation for Agriculture in the Classroom offers a variety of standards-aligned lesson plans that integrate agricultural concepts into core subjects. These lessons are designed to be engaging and hands-on, helping students connect real-world agricultural topics to their learning while promoting critical thinking and problem-solving skills.



## Scholarships

Thanks to the support of our generous partners, we are excited to be able to offer scholarships for K-12 educators to attend the National Agriculture in the Classroom Summer Conference. This conference is an experience like no other, and we want as many Kansas educators as possible to have the opportunity to attend! Apply today for a chance to experience agriculture in another state, attend educational sessions, and network with other teachers across the nation incorporating agriculture into their classrooms.



## Mini Grants

Start off your next school year right with a mini-grant from Kansas Foundation for Agriculture in the Classroom. Use this grant to purchase the resources necessary to execute agriculture-based lesson plans in your classroom. Winning classrooms will be featured on the Kansas Foundation for Agriculture in the Classroom website and on social media.

# Getting Started

Check out these free resources for  
K - 2<sup>nd</sup> grade!

## Create a Seed Germination Necklace!

- Materials needed:
- Jewelry bags (2"x3") - 1 per student
  - Necklace length string - 1 per student
  - hole punch
  - Water beads (hydrated) - 3 per student
  - Soybeans - 1 per student
  - Wheat - 1 per student



- Instructions
1. Punch hole above seal of jewelry bag.
  2. Place three water beads in bag.
  3. Place wheat and soybean in bag.
  4. Seal the bag.
  5. Insert string through hole.
  6. Keep necklace in a warm, dark place.
  7. Check necklace daily. Germination will occur after 5-7 days.

Find the full lesson at [ksagclassroom.org](http://ksagclassroom.org)



## Free Lesson Plans and Kits!

Follow us on Facebook to order a complete kit during our March or August release windows! Prefer to get started right away? You can also create your own using our easy-to-follow Make Your Own Kit—fun, flexible, and perfect for any time of year!

## Seed Germination Necklace

Introduce your young learners to the magic of plant growth with this hands-on lesson kit! In this lesson, students will plant a wheat kernel and a soybean seed in a small clear bag and observe the early stages of germination. As the seeds sprout, students will learn about plant life cycles, what seeds need to grow, and how roots and shoots begin to form.



## SEED GERMINATION NECKLACE

### Overview

Wheat is the number three commodity crop in Kansas but we are known for being the "Wheat State." Wheat products are found in hundreds of items we buy at the grocery store. The United States leads the world in the production of soybeans, which are grown in more than 30 states, including Kansas. Soybeans and soybean meal are a major source of protein in livestock and pet food. In this activity, students will "plant" a soybean seed and a wheat kernel and watch them grow.

### Objectives

1. Develop an understanding of what plants need to grow.
2. Demonstrate the importance of light and water in plant growth.
3. Compare the germination and growing rates of soybeans and wheat.
4. Learn the difference between a monocot and a dicot.

Suggested Grade Level: K-5th

Time: 50 minutes

Subject: Science  
Plant Growth & Development  
Germination Study



producers of wheat and soybeans. These plants are the seed germination necklaces. Farmers care soybeans are found in many items that we use even cake! They can also be feed to livestock.

Wheat. Soybeans are dicots, meaning they have two cotyledons. Wheat is a monocot, meaning they have one cotyledon.

Kansas Foundation for Agriculture in the Classroom

# Diving Deeper

Check out these free resources for  
K - 2<sup>nd</sup> grade!

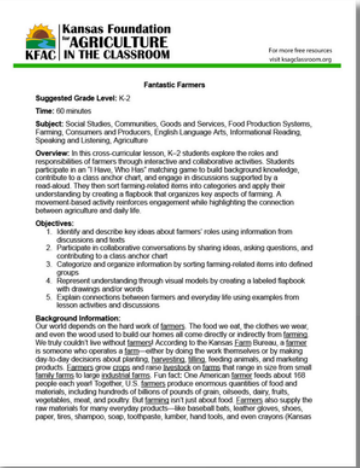


## Growing Readers

Growing Readers is a 7-week micro-curriculum centered around the Kailey's Ag Adventures book that focuses on the principles of Structured Literacy and place-based education, using agriculture as the context for literacy instruction.

## Fantastic Farmers

Fantastic Farmers introduces young learners to the roles and responsibilities of farmers through engaging activities that blend social studies and ELA. Students explore farming tools and jobs, build background knowledge with games and a read-aloud, and create a flapbook to show their learning.



## Bee Conservation

Introduce K-2 students to the importance of bees as pollinators. Through quick, engaging games and discussions, students learn how bees help our environment and what people can do to protect them. This lesson connects ELA, science, and social studies.

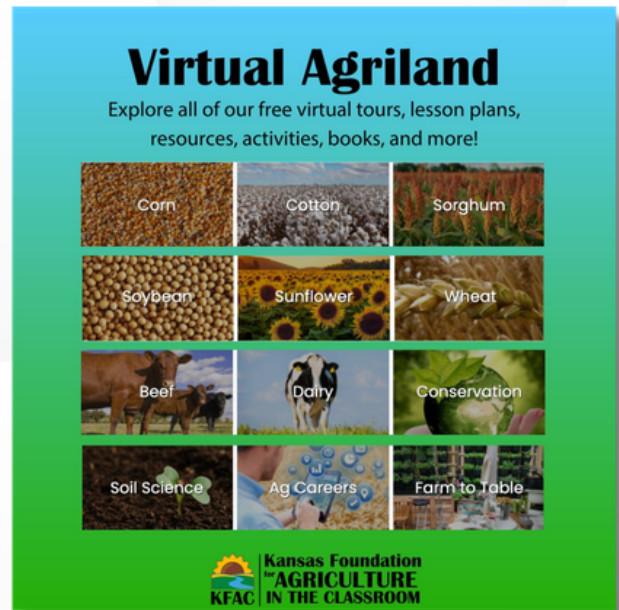


# Keep Exploring

Check out these free resources for  
K - 2<sup>nd</sup> grade!

## Explore Virtual Agriland!

KFAC's Virtual Agriland is an engaging online resource that introduces students to agriculture through interactive lessons, virtual tours, and hands-on activities. Find resources for K - 2<sup>nd</sup> grade by clicking the link above!



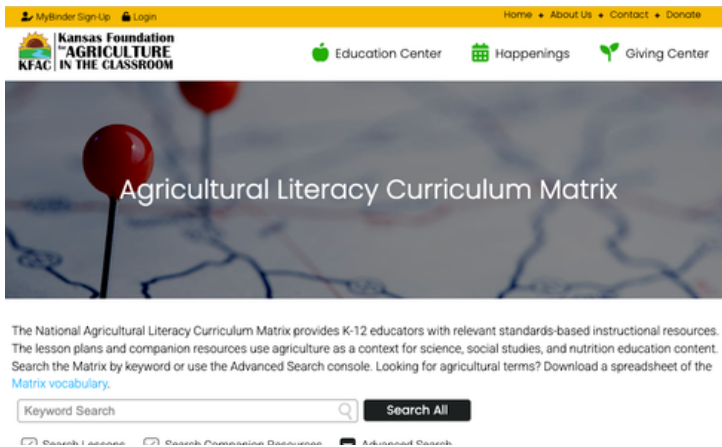
## Check Out Our Interactive Map!

The Interactive Map provides county-level access to local statistics, educational resources, and directories of agricultural businesses. Each county is clickable, allowing users to explore local data and connect directly with their community. To view the map, visit the link above.



# I'm All In

Bring agriculture into your classroom with exciting materials, training opportunities, and events!



## Instructional Materials

Engage students in activities that align to standards and explore teaching themes such as inquiry-based learning, and three-dimensional learning. Use the Curriculum Matrix to find lessons on specific topics and themes for your classroom.



## Professional Development

Kansas Foundation for Agriculture in the Classroom (KFAC) provides professional development for educators through workshops, training, and resources that integrate agriculture into the curriculum. KFAC helps teachers create engaging, real-world learning experiences, fostering a deeper understanding of agriculture's role in society.



## National Agriculture in the Classroom Conference

Join educators from across the nation to learn how to use agricultural concepts to teach reading, writing, math, science, social studies and more at the annual national convention. Explore agriculture across the country as the conference has a new location each year.

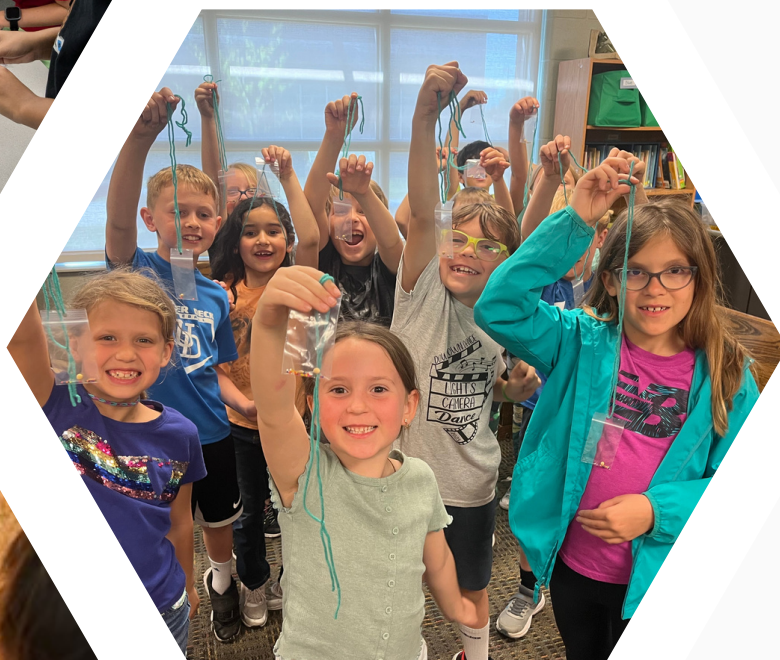




# Kansas Foundation for **AGRICULTURE** **IN THE CLASSROOM**

National Agriculture in the Classroom (NAITC) aims to improve agricultural literacy by providing educators with resources, lesson plans, and professional development opportunities to incorporate agriculture into their classrooms. Our mission is to connect students to agriculture, helping them understand its impact on their lives and the world. Find more resources at <https://agclassroom.org/>.

Kansas Foundation for Agriculture in the Classroom (KFAC) is the state-level affiliate of NAITC. KFAC provides tailored resources, lesson plans, and professional development opportunities to help teachers integrate agricultural topics into their curriculum. By fostering a deeper understanding of agriculture's role in society, KFAC aims to engage students in hands-on learning and promote agricultural literacy across Kansas.





# Kansas Foundation for **AGRICULTURE** in the Classroom

## About Us

KFAC is a statewide, self-funded 501(c)3 nonprofit agricultural literacy program providing educational resources, training, and support for schools, educators, and volunteers to spark meaningful connections between classrooms and Kansas agriculture.

## Kansas Foundation for Agriculture in the Classroom...

- Provides educators with agricultural lesson plans and resources.
- Offers professional development opportunities for teachers.
- Promotes agricultural literacy through hands-on learning experiences for students.

## Every year, KFAC reaches...

**160,000+**  
Students



**5,500+**  
Teachers



## Connect with us:

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