

Exploring Ag Careers

Suggested Grade Level: 3-5

Time: 2 30-minute lessons, depending on how many activities/educational games on the website are used

Subject: Science, Engineering Design, Earth and Human Activity, English Language Arts, Informational Reading, Social Studies, Kansas Culture, Economics, Counseling, Career Development, Agriculture, Agricultural Careers

Overview: Encourage students to explore and be curious about agricultural careers. Curiosity leads to deeper learning and exploration of new ideas, ultimately leading to new job discoveries and enhanced career opportunities. Students will explore careers by reading about topics of interest, gathering career information from interviews in Ag Mag Careers, and simulating career participation through interactive, educational activities on the My American Farm website.

Objectives:

1. Describe the roles and responsibilities of selected agricultural careers using information from readings, activities, and games.
2. Explain how agriculture-related careers impact our state and the national economy.
3. List and define at least five careers connected to the agriculture industry.

Background Information:

About 1.23 billion people held agricultural careers in 2019. Of these people, 857 million worked directly in primary agricultural production, and 375 million worked off the farm in other agricultural careers (Food). Agricultural careers are essential for providing food, fiber, and fuel worldwide. A career in agriculture is more than farming. Did you know there are 250 career areas in agriculture? With growing global populations, we will need more people in agricultural careers in the future. Although elementary students have diverse interests and skills, they benefit from having fun as they explore and learn about agricultural careers. In addition, learning about careers connected to the agriculture industry creates awareness that these careers play a significant role in state and national economies.

The American Farm Bureau Foundation for Agriculture's *My American Farm* project teaches agricultural literacy to students through interactive computer games and activities. The games feature various agricultural careers, including food production and delivery to consumers. By participating in and playing these educational games,

students can develop decision-making skills and tasks required in various careers within the agriculture industry. These games and activities provide several opportunities for pausing for teacher-led class discussions throughout the game to check for understanding.

Kansas Connections:

Agriculture is the top industry in Kansas. As of 2023, there are 55,500 farms in Kansas, spanning approximately 44.8 million total acres that raise our crops and livestock (Kansas). Kansas also places a high focus on animal health care, agribusiness, research, education, food production, processing, and renewable energy, all of which work closely with producers. It takes people passionate about careers in agriculture to make agriculture the top industry in Kansas!

Materials:

- Kids Ag-Mag "Careers" [career-agmag_interactive.pdf](#) OR <https://store.agfoundation.org/products/careers-ag-mag>.
- Computers or tablets for individual access to the Internet, a smartboard, or a projector for whole-class interactive activities.

Instructional Format:

1. Review background information.
2. Conduct engagement activity.
3. Read the Ag Mag Careers magazine and/or watch a short video.
4. Complete the online activities.
5. Conduct assessment exercise.

Engagement:

To engage students in the lesson, give them one minute to write down as many agriculture-related careers as possible. Hint: Careers in agriculture involve much more than being a farmer! Let students share their answers with the class. After sharing their answers, introduce a career that students might not know about: a hydrologist. Explain that hydrologists study water—how it moves, how it affects soil and ecosystems, and why clean water is essential for farms and communities. Then, have them guess how many agriculture-related careers there are. Reveal that there are over 250, and they will have a chance to explore some of these exciting careers during the lesson.

Procedures:

Activity

1. Say to students, "Did you know that in 2019, over 1 billion people around the world had jobs in agriculture? That's like putting the whole world's population into one big team taking care of food, farms, and animals! Out of those 1 billion people, 857 million worked on farms growing crops or raising animals, and 375 million worked in other jobs related to agriculture, like food processing, research, or keeping animals healthy. Agriculture is the biggest industry in Kansas! There



are about 55,500 farms in our state, covering 44.8 million acres—that’s a lot of space for growing crops and raising animals!”

2. Use the Ag Mag Careers magazine to introduce students to various agriculture-related careers. The magazine can be read as a class, in pairs, or in groups, according to the teacher's preference.
3. For more career exploration, or if the Ag Mag is unavailable, visit this YouTube channel published by Utah State University Extension for short videos about careers connected to the agriculture industry. Careers in Agriculture by UtahAgClassroom:
<https://www.youtube.com/playlist?list=PL7B61381EE0438243>. Additionally, you can review the Career Information section below.
4. Have students explore My American Farm www.myamericanfarm.org. You can let them work in pairs on a computer or tablet, or you can find the game on your computer and display it on a smartboard, allowing students to participate as a whole class. There are also apps available for iOS or Android tablets.

Vocabulary:

- **Career:** what you do for a living, which is often referred to as a job, profession, occupation, trade, or vocation.
- **Agricultural career:** a career that involves or is related to agriculture.
- **Vocation:** a particular occupation, business, or profession
- **Vocational school:** offers instruction in one or more skilled or semiskilled trades or careers.
- **Apprentice:** a person who works for another person to learn a trade or skill
- **Intern:** a person who works as an apprentice or trainee in an occupation or profession to gain practical experience
- **College:** an institute of higher learning, usually a place to continue studying after graduation from high school

Kansas Standards:

Next Generation Science Standards

3rd-5th Grade

Engineering Design

3-5-ETS1-2. Engineers improve or develop new technologies to increase their benefits, decrease known risks, and meet societal demands.

5th Grade

Earth and Human Activity

5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.

Language Arts

3rd Grade

Reading: Informational

Craft and Structure

RI.3.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a third grade topic or subject area.

Language in Reading: Informational



RI.3.11 Determine or clarify the meaning of unknown and multiple-meaning words and phrases to expand language comprehension.

RI.3.11.d Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.

RI.3.12.b Identify real-life connections between words and their uses.

Speaking and Listening

Presentation of Knowledge and Ideas

SL.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

4th Grade

Reading: Informational

Craft and Structure

RI.4.4 Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a fourth grade topic or subject area.

Language in Reading: Informational

RI.4.11 Determine or clarify the meaning of unknown and multiple-meaning words and phrases to expand language comprehension.

Writing

Research to Build & Present Knowledge

W.4.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

5th Grade

Reading: Informational

Key Ideas and Details

RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

Craft and Structure

RI.5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a fifth grade topic or subject area.

Language in Reading: Informational

RI.5.11 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on fifth grade reading and content, choosing flexibly from a range of strategies.

History, Government, and Social Studies

Standard 2: Individuals have rights and responsibilities.

2.1 The student will recognize and evaluate the rights and responsibilities of people living in societies.

2.2 The student will analyze the context and draw conclusions about rights and responsibilities.

2.3 The student will investigate and connect the rights and responsibilities of individuals with contemporary issues.

Standard 3: Societies are shaped by the identities beliefs, and practices of individuals and groups.

3.1 The student will recognize and evaluate how societies are shaped by the identities, beliefs, and practices of individuals and groups.

3.2 The student will analyze the context and draw conclusions of how individuals are shaped by the identities, beliefs, and practices of individuals and groups.

3.3 The student will investigate and connect how societies are shaped by the identities, beliefs, and practices of individuals and groups with contemporary issues.

School Counseling

Career Development

Standard 1: The student will acquire the skills to investigate careers in relation to knowledge of self and to make informed career decisions.

Benchmark 1: The student will develop career awareness.

3-5.1 The student develops awareness of career interests and related occupations;

3-5.3. The student recognizes and describes the various life roles people play;



3-5.4. The student recognizes that all work has value.

Standard 2: The student will employ strategies to achieve future career goals with success and satisfaction.

Benchmark 1: The student will acquire career information.

3-5.1 The student identifies career fields;

3-5.2 The student describes business and industry in the community and its contribution.

National Agricultural Literacy Standards:

Plants and Animals for Food, Fiber, and Energy

- Provide examples of specific ways farmers/ranchers meet the needs of animals (T2.3-5 d.)

Science, Technology, Engineering & Mathematics

- Provide examples of science being applied in farming for food, clothing, and shelter products (T4.3-5 d.)

Culture, Society, Economy, and Geography

- Discover that there are many jobs in agriculture (T5.3-5 b.)
- Explain the value of agriculture and how it is important in daily life (T5.3-5 d.)

Supporting Resources:

Adventures in Agriculture Coloring Book: <https://agclassroom.org/matrix/resource/1178/>

Beyond the Farm, Sydney Mitchell: Types of Agricultural Careers - Guide to Careers in Agriculture (4:46) <https://www.youtube.com/watch?v=IOlpSi28h6E>

“Careers in Agriculture” by Christopher Benson

https://openlibrary.org/books/OL11332831M/Careers_in_Agriculture

FFA AgExplorer: <https://agexplorer.ffa.org/>

Assessment:

Answering questions correctly in My American Farm Games can be used to assess student learning and comprehension.

Informal assessment could also include:

1. Exit slips (can be used as a bell-ringer during the first 2 minutes of class): Ask students to list at least five ag-related careers on a slip of paper to hand in as they leave class.
2. "Write the Room" activity with agricultural careers: Place ten cards, each containing the name of an agricultural career explored in this lesson, in various locations around the classroom. Each card should be labeled from one to ten. Place 10 additional cards around the room in other locations, listing the definition but not the name of the 10 careers. Have students work in teams, pairs, or individually, according to the teacher's preference and the allotted time, to match the careers with their definitions. Write the definitions on paper, labeling them 1 to 10, as students match careers with their corresponding definitions. (For example, 1. Hydrologist - a person who studies water; 2. Feedlot manager - etc.)
Helpful hint: As students explore various careers during the games and read the Ag Mag in this lesson, it may be beneficial for teachers to jot down careers and their corresponding definitions they want to use for this assessment idea.



Authors: Wanda Small, teacher, USD#377, Atchison County Community Elementary School, Effingham, KS. Patricia Wolfe, teacher, Lakemary Center, USD 368, Paola, KS, and edited by Marissa Cook, Secondary Art Education Major at KSU, KFAC intern.

References:

Food and Agriculture Organization of the United Nations. (2023, March 4). *Almost half the world's population lives in households linked to agrifood systems*.
<https://www.fao.org/newsroom/detail/almost-half-the-world-s-population-lives-in-households-linked-to-agrifood-systems/en>

Kansas Department of Agriculture. (2024) *Kansas Farm Facts* [Fact sheet].
agriculture.ks.gov/home/showpublisheddocument/9780/6386336718121000#page=10.74

