

Careers in Agriculture

Careers That Count

Opportunities in Agriculture

Language Arts, Economics, Career Education

Materials

Newspaper

Duct tape

Scissors

Copies of Appendix A: Careers Vocabulary

Copies of Student Handout A: KWL Chart

Copies of Student Handout B: What Makes a Good Presentation?

Copies of Student Handout C: Speech Score Sheet

Grade Level: 5-6

Time: Two 40-minute class periods

Standards:

English Language Arts:
Speaking and Listening

English Language Arts:
Creative Writing

Career Technology
Education

Overview

Students will become familiar with many agriculture-related careers and the impact agriculture has on U.S. population. In researching and giving a talk about chosen careers, students will learn how important agriculture-related careers are.

Objectives

1. Students will understand agriculture is the nation's number one industry.
2. Students will understand one out of every seven jobs in the U.S. is related to agriculture.
3. Students will discover some of the 250 careers available in agriculture.
4. Students will discover the foundation skills needed for agriculture careers.

Instant Expert

Exploring Kansas Natural Resources Educator's Guide. Unit 11 – Careers in Agriculture (171-180). Kansas Foundation for Agriculture in the Classroom. To order, visit www.ksagclassroom.org.

Background Information

Agriculture is the nation's largest industry covering over 250 career areas. Approximately 22 million people have jobs connected to agriculture – that's 15% of all the jobs in the U.S. These people provide food, clothing, fuel, building materials, and many other products to the rest of society. Only two percent of the population in the U.S. is involved in production agriculture. The rest of the careers are involved in the food processing, transportation, inspection and safety, marketing, economics, engineering, science and research. One in seven people are involved in these types of careers.

It is amazing that two percent of the U.S. population is involved in production agriculture. That

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means that only two percent of our population feeds, clothes, and provides many items for the rest of us! This is quite different from how many people in an underdeveloped country are relied upon to feed their population.

Approximately 70% of jobs in poverty stricken countries are related to food production. Many people in poverty-stricken countries live a very basic life where much of their time is spent growing food and preparing it for their own consumption. Farming methods and tools are very basic. Poor infrastructure such as bad roads, small trucks, lack of refrigeration, lack of trucks, trains, and storage units prohibit movement of agriculture produce to larger populations. Lack of good marketing systems translates to low or no profit for the farmers.

U.S. citizens are fortunate to have the production systems that allow 2% of the population to feed the rest, and add to that the 15% of jobs dependent on agriculture. This frees up 83% of the population to pursue other careers that are part of our current service-oriented, democratic society.

Preparation

1. Obtain a copy of the *Exploring Kansas Natural Resources Educator's Guide*.
2. Arrange computers for students or print full-page color copies from USDA Living Science: Food, Agriculture and Natural Resource Careers (www.agriculture.purdue.edu/USDA/Careers).
3. Create a display board with a few of the colorful pictures agricultural careers from USDA Living Science: Food, Agriculture and Natural Resource Careers.
4. Collect old newspapers and obtain several rolls of duct tape or masking tape and scissors.

Instructional Format

1. To capture students' curiosity, set up a display board with colorful pictures of people involved in agriculture careers. These pictures are available from USDA Living Science: Food, Agriculture and Natural Resource Careers (www.agriculture.purdue.edu/USDA/Careers).
2. Students will conduct research, engage in an activity, and use their communication skills.
3. Upon completing the lesson, students will organize their thoughts, write creatively, and give a speech to their peers about the career they selected. Their presentation should "market" their career choice.
4. Upon completing the lesson, students will answer the conclusion questions and discuss the activity.

Procedures

1. Distribute Student Handout A: KWL Chart to students and have them complete "K" and "W" of the chart.
2. Share background information with students.
3. Instruct students to pick an agriculture career to research from the USDA Living Science: Food, Agriculture and Natural Resource Careers posters (www.agriculture.purdue.edu/USDA/Careers).

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5. Students may do further research on the web or conduct face-to-face or phone interviews with persons in their career of interest.
6. Students will create, from newspaper and duct tape, props that represent the career they have researched. Example: tie, billfold and paper money for an agriculture economist or an agriculture banker; or a soil probe and a shovel for a soil scientist.
7. Students will present a five-minute presentation about the career they have researched, using props to illustrate their points. Student Handout B: What Makes a Good Presentation? and Student Handout C: Presentation Score Sheet should be shared with them.
8. Students will answer conclusion questions and complete the “L” on their KWL Charts.

Conclusion Questions (Assessments)

1. Why is agriculture important to our nation?

Agriculture is the nation's largest industry covering over 250 career areas. Approximately 22 million people have jobs connected to agriculture – that's 15% of all the jobs in the U.S. People involved in agricultural careers feed, clothe and provide other items for the nation's population.

2. Why is agriculture and our infrastructure in the U.S. important to our society?

People involved in agricultural careers feed, clothe and provide other items for the nation's population. Good infrastructure like good roads, big trucks, and availability of trucks, trains and storage units (some with refrigeration) allows the movement of agriculture produce across the country.

3. What are two careers in agriculture that you find interesting? Explain why.

Answers will vary from student to student.

4. If you were to pursue a career in agriculture, what would it be?

Answers will vary from student to student.

5. What surprised you the most about this topic?

Answers will vary from student to student.

In addition, the Student Handout A: KWL Chart and Student Handout C: Presentation Score Sheet may be used as assessment tools.

Resources

AgCareers.com. www.agcareers.com

Agricultural Career Concept Map. Utah Agriculture in the Classroom. http://extension.usu.edu/aitc/lessons/pdf/cte_concept_map.pdf.

Agriculture Careers. Utah Agriculture in the Classroom. http://extension.usu.edu/aitc/lessons/pdf/ag_careers.pdf.

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Communications Fact Sheet 2.0 4H979 (2009). Waldren and Adams. K-State Research and Extension Publication.

Exploring Kansas Natural Resources Educator's Guide. Unit 11 – Careers in Agriculture (171-180). Kansas Foundation for Agriculture in the Classroom. To order, visit www.ksagclassroom.org.

Finding Your Future (2009). iBio Institute. www.finding-your-future.org

USDA Living Science: Food, Agriculture and Natural Resource Careers. Purdue University and USDA. www.agriculture.purdue.edu/USDA/Careers.

Want More? Extensions

For another excellent career-based lesson plan, download “I Want a Job in Agriculture” from KFAC. The lesson plans is available at

<http://www.ksagclassroom.org/classroom/lesson/careers.html>.

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Careers Vocabulary

Agriculture: The production, processing, marketing, and use of foods, fibers fuel, shelter and other products that come from plants and animals.

Career: Long-term, lifelong job; builds upon several jobs in an interest area

Infrastructure: A system that supports something

In agriculture, this would be a system that supports production, processing, storing, and movement of agriculture products. It includes but is not limited to farm machinery, storage bins, transportation systems, refrigeration systems, processing systems, financing systems, and marketing systems.

Job: Occupation, profession

Types of prerequisite classes needed in high school to build a firm foundation for a career in agriculture.

Agriculture Science: The study of plant, animal, soil, food science

A high school class offering that demonstrates the presence of science in agriculture production, processing, and marketing.

Art/Performing Arts: Creating beautiful things; theatre art, music performance

Art may be necessary in communicating major agricultural messages to people. It can be used to market a product, tell a story or communicate history. It appeals to human emotions.

English: The study of communication using the English language for reading, writing, and speech

To be successful in an agriculture career, you need to be able to read, write, and speak well.

Foreign Language: A language different from one's main language

To be successful in an agriculture career, it is becoming more necessary to speak more than one language so you can communicate with others as we produce, process and market agriculture products in a global economy.

Geography: The study of earth's physical features

To be successful in an agriculture career, you need to have an understanding of areas and regions in our state, country and world. Weather, soil type, water resources, and infrastructure that support production agriculture and the processing and marketing of agriculture products affect each of these areas differently.

History: The study of past events

To be successful in an agriculture career, you need to have knowledge of past events that have affected agriculture production. The success of each culture in civilization has relied on their ability to provide basic food needs of their people. Lessons can be learned from the past and applied to current situations. Care of natural resources in our environment can be compared and contrasted past to present and determine man's actions for the future care of natural resources.

Math: The study of relationships using numbers.

To be successful in an agriculture career, you need to be able to use math to care for the plants, land, and animals properly as you supply their daily needs of food, water, shelter and space. Math is also needed in agricultural economics for lending or marketing purposes. Math is needed as engineers design machinery and other systems for agriculture.

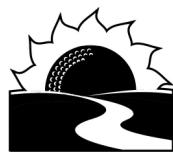
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Purpose: To inform your audience about your selected agricultural career.

Goal: Share a talk 3-7 minutes in length.

Parts of a Talk

All talks have three parts: an opening or introduction, the body that presents the information, and a short summary that highlights the main points of the talk.

The **introduction** is the opening statement. It should catch the audience's attention by doing one of the following:

Ask a question

Show an object or a picture

Tell a startling fact

Make a challenging statement

Tell a short story.

The **body** is the main part of the talk. It should be 80 to 90 percent of your talk. First, tell what the main idea of your talk will be. Then explain or illustrate important facts while developing the main idea.

Lastly, give the **summary** or conclusion. Repeat just a few of the major points. A quotation, poem or saying might be used at the close.

For a memorable talk, tell of personal experiences whenever they relate to your topic. Use pictures, poster boards, models or other visuals if they enhance the talk. Your props made from newspaper will serve as a fun visual aid.

Tips for you as a speaker

- Dress appropriately
- Practice good posture
- Outline your talk, but never read your talk. You may want to write your notes on a 3" × 5" index cards for easy use.
- Practice, practice, practice. Give it to yourself alone at first, perhaps in front of a mirror. Later, have someone listen who will offer suggestions for improving it. Never memorize your talk. Memorize your outline instead.
- Speak with slowly and with good volume.
- Don't use words you can't pronounce or understand.
- Use poster boards or visuals if they enhance the presentation.
- Smile.
- Be at ease, be yourself, and be enthusiastic.

Adapted from Communications Fact Sheet 2.0 4H979 (2009) by Waldren and Adams. K-State Research and Extension Publication.

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Name:

Start time:

Finish:

Total Minutes:

Items to Consider	Possible Points	Earned Points	Teacher Comments	
			Well Done	Could Improve
Subject matter Covered in 7-10 minutes Information is accurate Information is complete Information is up-to-date Sources are recognized	40			
Appearance Well Groomed Good Posture	10			
Organization of Presentation Introduction Strong Catches attention States purpose of talk Body State main point Develops main idea using facts, illustrations/examples Summary Reviews main points Leaves the audience with a challenge or interesting fact or quote	25			
Delivery of Presentation Voice is loud and clear Talked at natural speed Used vocabulary that is easy to understand Was at ease Was pleasant Was enthusiastic	25			

Adapted from Project Talk Scorecard. K-State Research and Extension Publication.

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