

Here, There,

# AG CAREERS

Are Everywhere!



Name \_\_\_\_\_

Age (as of January 1 of the current year) \_\_\_\_\_

County \_\_\_\_\_

Club or group name \_\_\_\_\_

Project helper \_\_\_\_\_



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES



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# Note to the Project Helper

Congratulations! A 4-H member or other youth has asked you to serve as a project helper. You may be a parent, relative, project leader, friend, club advisor, or another important person. Your duties begin with helping the youth create and carry out a project plan, as outlined in the Project Guide.

As a project helper, it is up to you to encourage, guide, and assist. How you choose to be involved helps to shape the learner's life skills and knowledge of the importance of careers in agriculture.

## Your Role as Project Helper

Your contributions are critical to delivery of the 4-H program, which is committed to providing experiences that strengthen a young person's sense of belonging, generosity, independence, and mastery. Your interactions should support positive youth development within the framework of the Eight Essential Elements (also known as the Eight Key Elements):

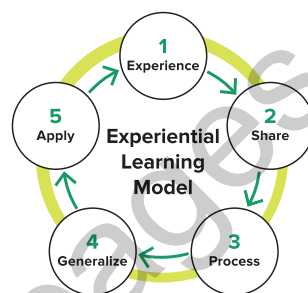
1. A positive relationship with a caring adult
2. An inclusive environment
3. A safe emotional and physical environment
4. Opportunity for mastery
5. Engagement in learning
6. Opportunity to see oneself as an active participant in the future
7. Opportunity for self-determination
8. Opportunity to value and practice service to others

For more information on the Eight Essential Elements, please refer to the *Ohio 4-H Volunteer Handbook* available online at [ohio4h.org](http://ohio4h.org). On a practical level, your role as a project helper means you will strive to do the following:

- Guide the youth and provide support in setting goals and completing this project.
- Encourage the youth to apply knowledge from this project book.
- Serve as a resource person.
- Encourage the youth to go beyond the scope of this project book to learn more about agricultural careers.

## What You Should Know About Experiential Learning

The information and activities in this book are arranged in a unique, experiential fashion (see model). In this way, a youth is introduced to a particular practice, idea, or piece of information through an opening (1) **experience**. The results of the activity are recorded on the accompanying pages. The learner then (2) **shares** with the project helper what was done and (3) **processes** the experience through a series of questions that allow for (4) **generalizing** and (5) **applying** the new knowledge and skill.



Pfeiffer, J.W., and J.E. Jones, Reference Guide to Handbooks and Annuals. © 1983 John Wiley & Sons, Inc. Reprinted with permission of John Wiley & Sons, Inc.

## What You Can Do

- Review the Learning Outcomes (project skill, life skill, educational standard, and success indicator) for each activity to understand the learning taking place. See the inside back cover for the Summary of Learning Outcomes.
- Become familiar with each activity and the related background information. Stay ahead of the learner by trying out activities beforehand.
- Begin the project by helping the learner establish a plan. This is accomplished by reviewing the Project Guide.
- After each project area is completed, conduct a debriefing session that allows the learner to answer the review questions and share results. This important step improves understanding from an experiential learning perspective.
- Help the learner celebrate what was done well and see what could be done differently. Allow the learner to become better at assessing his or her own work.
- In the Project Guide, date and initial the activities that have been completed.



# Project Guide

Welcome to *Here, There, Ag Careers Are Everywhere!* This is an advanced project for youth who want to explore careers in agriculture beyond traditional production farming.

What kinds of jobs do you think of when you here the word “agriculture”? Chances are, whatever you envision is about food production: a farmer, a meat inspector, a salesperson for a seed company, for example. Agriculture is all of that and so much more. It supports food production but also fields such as environmental science, forestry, plant health management, and agribusiness communication to name a few. When you think agriculture, think big! It offers careers for everyone. This project book can help you find your best fit.

Check your county’s project guidelines (if any) for completion requirements in addition to the

ones listed below, especially if you plan to prepare an exhibit for the fair.

This project requires internet access and research. Be sure to get permission from your parent or guardian when accessing new sites.

The amount of time for each activity varies, but the project is easily completed within one year.

## Project Guidelines

**Step 1:** Complete **all eight** activities and **all** of the Talking It Over questions.

**Step 2:** Take part in **at least two** learning experiences.

**Step 3:** Become involved in **at least two** leadership/citizenship activities.

**Step 4:** Complete a project review.

## Step 1: Project Activities

Complete **all eight** activities and **all** of the Talking It Over questions. The More Challenges activities are optional. As you finish activities, review your work with your project helper. Then ask your project helper to initial and date your accomplishment.

Activity	Date Completed	Project Helper Initials
<b>PROJECT AREA: The Art and Science of Ag</b>		
1. What Is Agriculture?		
2. Career Field Map		
Talking It Over		
<b>PROJECT AREA: Where Do You Fit?</b>		
3. Check Your Skills		
4. Personality Plus		
5. Is It Really a Match?		
6. Make It a Deep Dive		
Talking It Over		
<b>PROJECT AREA: Need Direction? Make a Connection</b>		
7. Informational Interview		
8. Value of a Mentor		
Talking It Over		



## Step 2: Learning Experiences

Learning experiences are meant to complement project activities, providing the opportunity for you to do more in subject areas that interest you. What are some learning experiences you could do to show the interesting things you are learning about? Here are some ideas:

- Attend a clinic, workshop, demonstration, or speech related to careers in agriculture.
- Help organize a club or group meeting based on this project.
- Go on a related field trip or tour.
- Prepare your own demonstration, illustrated talk, or project exhibit.
- Participate in a county fair or other judging event.
- Plan your own learning experience.

Once you have a few ideas, record them here. Complete **at least two** learning experiences. Then, describe what you did in more detail. Ask your project helper to date and initial in the appropriate spaces below.

Plan to Do	What I Did	Date Completed	Project Helper Initials
Demonstration	Showed club or group members how to find their personality types with the online quiz.	5/5/yr	L. H.



### Step 3: Leadership and Citizenship Activities

Use what you learn to give back to your community! Choose **at least two** leadership/citizenship activities from the list below (or create your own) and write them in the table. Record your progress by asking your project helper to initial next to the date as each one is completed. You may add to or change these activities at any time. Here are some examples of leadership/citizenship activities:

- Teach someone about a specific agricultural career.
- Help someone else prepare for project judging.
- Host a workshop to share tips about the training needed for jobs in agriculture.
- Encourage someone to enroll in this project.
- Arrange for a career counselor or someone in a food, agricultural, and environmental sciences career to speak to your club or other group.
- Plan your own leadership/citizenship activity.

Leadership/Citizenship Activity	Date Completed	Project Helper Initials
Organized a field trip to our county's Soil and Water Conservation District.	6/12/yr	K. F.





## Activity 1

# WHAT IS AGRICULTURE?

“Agriculture is the basis of all **civilization**. It is part of everything from the food we eat to the clothing we wear. Agriculture shapes many of the traditions and values that this country was built on. Agriculture is the science, art, and occupation of producing crops, raising livestock, and cultivating the soil.”

That impressive definition comes from “What Is Agriculture?” an article at eXtension.org. Let’s explore further.

“You have brains in your head. You have feet in your shoes. You can steer yourself any direction you choose.”  
—Dr. Seuss



Words in **bold** throughout this book are defined in the glossary.



## LEARNING OUTCOMES

**Project skill:** Reviewing titles of non-traditional food, agricultural, and environmental sciences careers • **Life skill:** Making decisions

**Educational standard:** CTE AG 2.3: Explain the types of industries, organizations, and activities that are part of agriculture, food, and natural resources (AFNR).

**Success indicator:** Evaluates many non-traditional food, agricultural, and environmental sciences career titles



## WHAT TO DO

Just ONE of the following jobs is not included in the collection of career profiles (from agcareers.com), but which is it? Take a guess, then circle your choice, and answer the questions below.

1. Accountant
2. Apiary Worker
3. App Developer
4. Arborist
5. Auditor
6. Biosecurity Specialist
7. Biostatistician
8. Buyer
9. Carpenter
10. Climate Change Analyst
11. Data Processor
12. Driver
13. Ecologist
14. Electrician
15. Embryologist
16. Environmental Engineer
17. Farm Manager
18. Farrier
19. Fermentation Scientist
20. Florist
21. Food Scientist
22. Food Stylist
23. Game Warden
24. Geneticist
25. Grain Elevator Manager
26. Graphic Designer
27. Greenhouse Manager
28. Hauler
29. Horse Trainer
30. Human Resources Manager
31. Inspector
32. Journalist
33. Lawyer
34. Loan Officer
35. Lobbyist
36. Mechanical Engineer
37. Microbiologist
38. Mine Engineer
39. Naturalist
40. Packaging Engineer
41. Pest Control Advisor
42. Pet Groomer
43. Pilot
44. Plant Breeder
45. Pricing Coordinator
46. Public Relations Specialist
47. Realtor
48. Recruiter
49. Researcher
50. Restaurant Server
51. Salesperson
52. Sanitation Coordinator
53. Shipping Coordinator
54. Software Developer
55. Soil Scientist
56. Teacher
57. Turf Specialist
58. Veterinarian
59. Warehouse Manager
60. Water Treatment Coordinator
61. Web Developer
62. Weed Scientist
63. Welder
64. Wind Turbine Technician
65. Zoologist

Name one job that . . .

1. Does not require education beyond high school. \_\_\_\_\_
2. Has to do with the development of alternative energy. \_\_\_\_\_
3. Has to do with computer programming. \_\_\_\_\_
4. Has to do with the improving the environment. \_\_\_\_\_
5. Requires a lot of interaction with people. \_\_\_\_\_
6. Requires creativity. \_\_\_\_\_
7. Is likely indoors all the time. \_\_\_\_\_
8. Is likely outdoors all the time. \_\_\_\_\_

See the answer key on page 37.



## BACKGROUND

As you know, the agriculture industry goes far beyond planting and harvesting. Extension.org extends the industry's scope to include these areas:

- Processing, marketing, and delivering agricultural products
- Supplying farm equipment and services
- Using and conserving land and water resources
- Researching and educating the public about health, nutrition, and food science
- Developing and maintaining recreational areas for hiking, boating, fishing, and other activities

National Geographic describes the vast world of the agriculture industry this way, “the art and science of cultivating the soil, growing crops and raising livestock. It includes the preparation of plant and animal products for people to use and their distribution to markets. Agriculture provides most of the world’s food and fabrics. Cotton, wool, and leather are all agricultural products. Agriculture also provides wood for construction and paper products.” Clearly, agriculture is part of our daily lives, in many ways.

### More Challenges

Look at the list of agricultural careers on page 8 again. Think about which ones appeal to you. Where do you see yourself fitting in? Share your thoughts with your project helper.



### Did you know?

The National Agricultural Library states the number of farms increased 8% from 1860 to 2010. But the ag labor force decreased 86% in the same time period. The evolution of agriculture practices allows farming to continue to improve for many reasons, including better equipment and new technology.

