

Lesson F2–1

Researching Possible SAE Programs

Unit F. Supervised Experience in Agriculture/Horticulture

Problem Area 2. Planning and Developing SAE Programs

Lesson 1. Researching Possible SAE Programs

New Mexico Content Standard:

Pathway Strand: Academic Foundations

Standard: I: Achieve specific academic knowledge and skills required to pursue the full range of career and post-secondary education opportunities within AFNR.

Benchmark: I-B. Be proficient in using a variety of resources for both research and development.

Performance Standard: 1. Conduct informational searches for types of resources that are appropriate for locating scholarly and academic information. 2. Analyze materials to determine their value for research and development areas.

Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:

1. Identify career interest areas in agriculture.
2. Identify skills needed for career success.
3. Explain opportunities for SAE programs.

List of Resources. The following resources may be useful in teaching this lesson:

Recommended Resources. One of the following resources should be selected to accompany the lesson:

Chelewski, Ray E., Jasper S. Lee, Elizabeth M. Morgan, and Elizabeth Wilson. *AgriScience Explorations*. Danville, Illinois: Interstate Publishers, Inc., 2000. (Textbook, Chapter 21)

National FFA Organization. *FFA Student Handbook*. Alexandria, Virginia: National FFA Organization, 1995.

National FFA Organization. *Official Manual*. Indianapolis, Indiana: National FFA Center, 1998.

SOE Programs in Agriculture. (VAS Unit #7003). Vocational Agricultural Service, College of Agriculture, University of Illinois, 1410 S. Maryland Drive, Urbana, IL.

Other Resources. The following resources will be useful to students and teachers:

Cooper, Elmer L. and Bret Iverson. *Agriscience Fundamentals and Applications*. Albany, New York: Delmar Publishers, Inc., 1997. (Textbook, Unit 4)

Fraze, Steven D., Sharon Hunter, Marshall Stewart, Brenda Scheil, and Robert Terry, Jr. *Developing Leadership and Personal Skills*. Danville, Illinois: Interstate Publishers, Inc., 1997. (Textbook, Appendix A)

List of Equipment, Tools, Supplies, and Facilities

Writing surface
Overhead projector
Transparencies from attached masters
Copies of student lab sheets

Terms. The following terms are presented in this lesson (shown in bold italics):

Agricultural processing, products, and distribution
Agriculture mechanics
Agriculture professions
Agriculture supply and service
Colleges
Community college
Experience
Forestry
Horticulture
Major

People skills
Production agriculture
Renewable natural resources
Resource inventory
Universities

Interest Approach. Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach is included here. Survey the class and ask the students to list their individual agriculture interest. Ask them to share the interest with the class, listing them on the board. After the list is complete, discuss how some of these interests could be SAE programs.

Summary of Content and Teaching Strategies

Objective I: Identify career interest areas in agriculture.

Anticipated Problem: What are some careers related to agriculture?

- I. Careers in agriculture include jobs relating in some way to plants, animals, and renewable resources.
 - A. Approximately 21 million people are employed in agricultural careers.
 - B. Approximately 400,000 people are needed annually to enter the agricultural workforce.
 - C. There are only approximately 100,000 trained people available to fill the vacancies.
 - D. About 20% of the jobs in agriculture are in production.
 - E. Agriculture careers can be divided into the following categories:
 1. **Production agriculture**—farming or ranching; growing and marketing field crops and livestock. It accounts for 20% of all jobs in agriculture.
 2. **Agriculture processing, products, and distribution**—parts of the agricultural industry that hauls, grades, processes, packages, and markets commodities from production sources.
 3. **Horticulture**—includes producing, processing and marketing fruits, vegetables, and ornamental plants.
 4. **Forestry**—the industry that grows, manages, and harvests trees for lumber, poles, posts, pulpwood, and other commodities.
 5. **Renewable natural resources**—includes the management of wetlands, rangelands, water, fish, and wildlife. It involves people with an appreciation for natural and scientific knowledge of plants and animals.
 6. **Agriculture supply and service**—includes businesses that sell supplies to agencies that provide services for people in agriculture.

7. **Agriculture mechanics**—the design, operation, maintenance, service, selling, and use of power units, machinery, equipment, structures, and utilities in agriculture.
8. **Agricultural professions**—the occupations requiring specialized education, especially in law, medicine, or teaching.

Use a variety of teaching techniques to help students master this objective. Students need text materials to enhance learning. Unit 4 in *Agriscience Fundamentals and Applications*, Chapter 21 in *Agriscience Explorations and VAS Unit 7003 SOE Programs in Agriculture* are recommended. Use TM: F2–1A and TM: F2–1B to help students understand various careers in agriculture. Make a bulletin board labeled with the eight different categories of agricultural careers. Ask students to collect business cards from individuals representing the different agricultural career categories. Post the various business cards on the bulletin board.

Objective 2: Identify skills needed for career success.

Anticipated Problem: What skills are required to be successful in the workplace?

- II. Entering a career requires various skills along with education and training.
 - A. Education is essential in preparing for career entry.
 1. The kind of education varies with the nature of the work.
 2. A high school diploma or higher education are needed for most jobs.
 3. After high school, students can enroll in either community college, college, or university.
 - a. **Community colleges** have programs that require two years or less to complete.
 - b. **Colleges** and **universities** offer programs that require four years or greater for the degree.
 - c. A **major** is a collection of courses in an area of study that earns a degree.
 - d. Less than 20% of today’s jobs require a college degree.
 - B. **People skills** are the abilities that help people get along with others. These are important in career success. Examples of people skills include:
 1. Being courteous
 2. Honesty
 3. Being respectful of others
 4. Seeking advice of others
 5. Communication skills
 6. Decision-making skills
 7. Pleasant personality
 8. Helping others feeling good about themselves
 - C. **Experience** is having personally done something or worked in a particular job or location. Experience helps people understand the nature of the work.

Many teaching techniques can be used to help students understand the skills needed for career success. Students need text materials. Chapter 21 in *Agriscience Exploration* and Unit 4 in *Agriscience Fundamentals and Applications* are recommended. Use TM: F2–1C to help explain examples of people skills. Discuss how skills can be developed through an SAE program. Use LS: F2–1A to have students further investigate a career of their choice.

Objective 3: Explore opportunities for SAE programs

Anticipated Problem: What are some opportunities for SAE programs?

- III. Students should use their imagination when exploring SAE programs
- A. Seek the teacher’s advice for ideas on SAEs.
 - B. Observe what successful students from the past have done.
 - C. Review the awards and plaques of proficiency awards on display in the classroom.
 - D. Personal interest should be considered in selecting an SAE.
 - 1. Students should consider their personal interest.
 - 2. Build from those interests.
 - E. Utilize a Student Interest Survey to determine natural interest.
 - F. A **resource inventory** is a summary of the resources that may be available for conducting an SAE program. It includes information about home, farm/business, work setting, school and community.
 - G. Arrange a conference with teachers.
 - 1. Review the Personal Interest Survey and Resources Inventory.
 - 2. Discuss interests and explore possible SAEs that match.
 - 3. Discuss options with parents or guardians and employers if they are involved.

Use a variety of teaching techniques in helping students explore the various SAE opportunities. Text materials will enhance student learning. Chapter 5 in *Agriscience Fundamentals and Applications* and VAS Unit #7003 “SOE Programs in Agriculture” are recommended. Use LS:F2–1B to survey individual student interest.

Review/Summary. Use the objectives for the lesson as guides in reviewing and summarizing the content. Have the students explain the content associated with each objective. Use questions at the end of the chapter of the text materials as a form of review.

Application. Students can apply the content of this lesson in their agricultural education and FFA activities. The following lab sheets provide excellent application of the objectives.

Career Wheel Challenge—LS: F2–1A

Student Interest Survey—LS: F2–1B

Evaluation. Assessing the extent to which the students have achieved the objectives can be based on student participation in reviewing and summarizing the lessons as well as attentiveness throughout. A written test can also be given. A sample written test is attached.

Answers to Sample Test:

Part One: Matching

1=e, 2=f, 3=d, 4=c, 5=b, 6=a

Part Two: Completion

1. community college
2. people skills
3. resource inventory
4. 21
5. Experience

Part Three: Short Answer

1. Refer to TM: F2-1A for the answer.

Test

Lesson F2–1: Researching Possible SAE Programs

Part One: Matching

Instructions. Match the term with the correct response. Write the letter of the term by the definition.

- | | |
|-----------------------------------|--|
| a. Agriculture supply and service | d. Horticulture |
| b. Forestry | e. Production agriculture |
| c. Ag mechanics | f. Agriculture processing, products, and distribution |

- _____ 1. A career involving farming and/or ranching.
- _____ 2. A career that involves hauling, grading, packaging, and marketing of agriculture products.
- _____ 3. A career involving ornamental plants.
- _____ 4. A career involving operating, maintaining, and servicing machinery and equipment.
- _____ 5. An industry that grows, manages, and harvest trees.
- _____ 6. A business that sells supplies to other agricultural agencies.

Part Two: Completion

Instructions. Provide the word or words to complete the following statements.

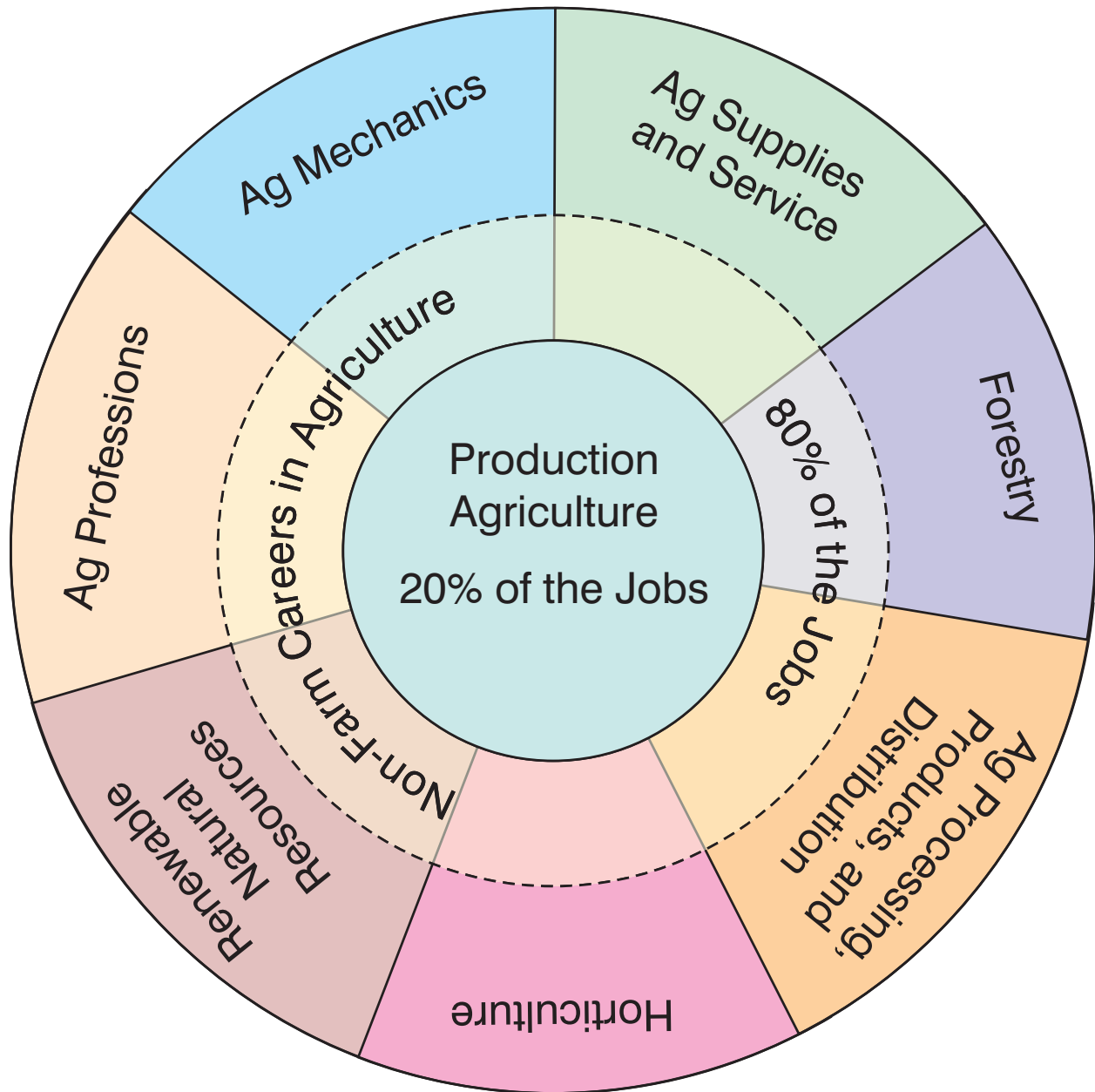
1. A _____ offers programs that require two years or less to complete.
2. _____ are the abilities that help people get along well together.
3. A _____ is a summary of resources that may be available for conducting an SAE program.
4. Approximately _____ million people are employed in ag careers.
5. _____ is having personally done something or worked in a particular job or location.

Part Three: Short Answer

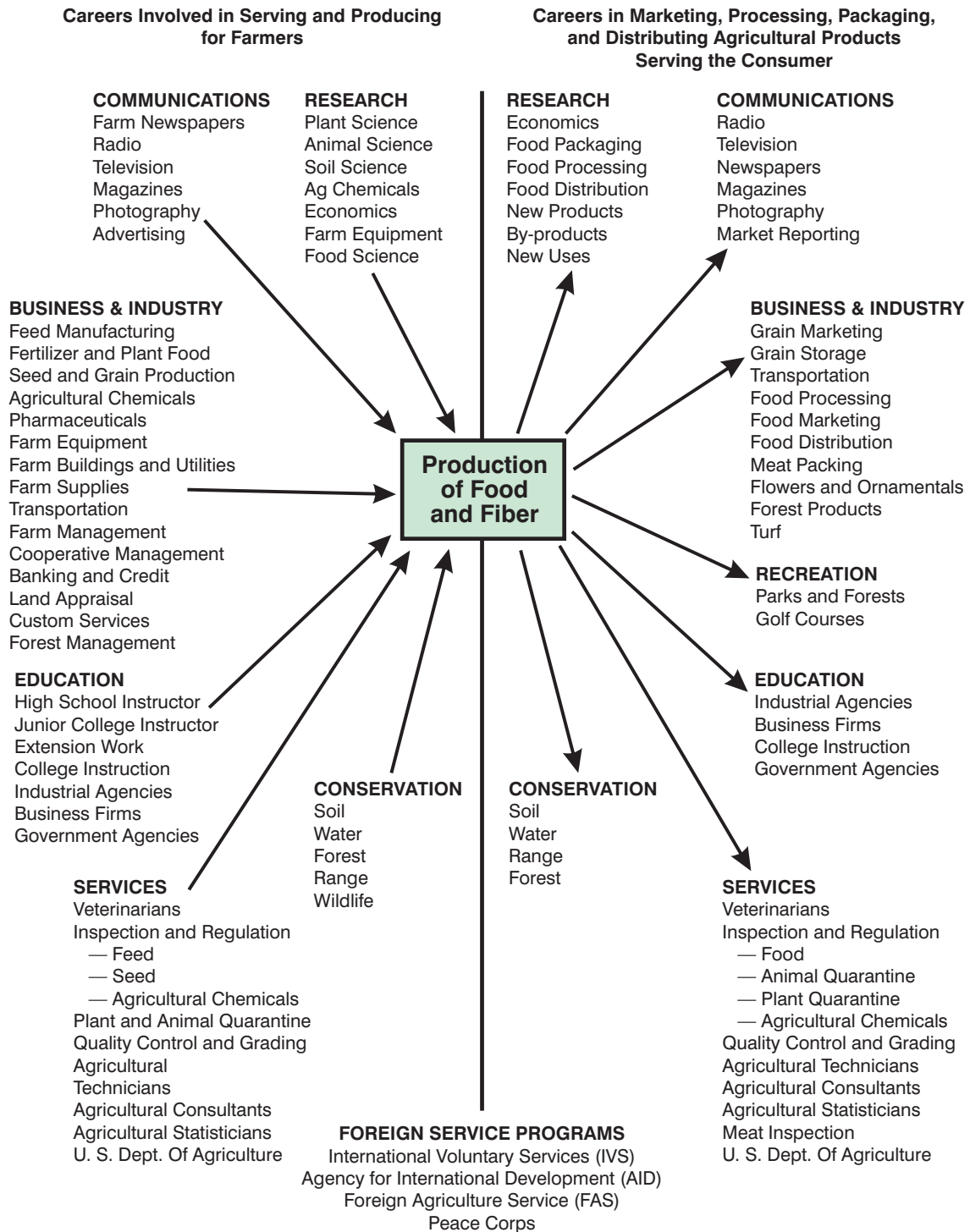
Instructions. Provide information to answer the following questions.

1. Draw and label the eight areas of the career wheel.

AGRICULTURAL CAREER WHEEL



EXAMPLES OF CAREER OPPORTUNITIES IN AGRICULTURE



PEOPLE SKILLS

- **Being Courteous**
- **Respecting Others**
- **Honesty**
- **Seeking Advice From Others**
- **Communication Skills**
- **Decision Making Skills**
- **Pleasant Personality**
- **Helping Others Feel Good About Themselves**

Lab Sheet

Career Wheel Challenge

Purpose

To have students learn more about a particular job relating to SAE's.

Materials Needed:

- Lab Sheet
- Writing Utensil
- Resource Materials

Procedure

1. Provide students with a copy of the lab sheet.
2. Ask them to interview someone similar to the one they are interested in.
3. Complete the information for the following items:

Career Wheel Challenge

Career Area _____

Job Selection _____

Nature of the work:

Working Conditions:

Training and Education needed:

Job outlook:

Earnings:

Lab Sheet

Student Interest Survey

Purpose

To survey student interest related to choosing SAE activities.

Materials

Lab Sheet
Writing Utensil

Procedure

1. Place an “X” by the tasks that you like to do or would like to learn about.

| <u>Agribusiness Tasks</u> | <u>Horticulture Tasks</u> | <u>Production Tasks</u> |
|---|---|--|
| <input type="checkbox"/> delivering merchandise | <input type="checkbox"/> applying pesticides | <input type="checkbox"/> applying pesticides |
| <input type="checkbox"/> displaying merchandise | <input type="checkbox"/> arranging flowers | <input type="checkbox"/> bailing hay |
| <input type="checkbox"/> driving trucks | <input type="checkbox"/> balling and burlapping trees | <input type="checkbox"/> building fences |
| <input type="checkbox"/> keeping records | <input type="checkbox"/> building patios | <input type="checkbox"/> feeding animals |
| <input type="checkbox"/> mowing lawns | <input type="checkbox"/> edging flower beds | <input type="checkbox"/> handling manure |
| <input type="checkbox"/> operating cash registers | <input type="checkbox"/> making cuttings | <input type="checkbox"/> harvesting crops |
| <input type="checkbox"/> pricing merchandise | <input type="checkbox"/> mowing lawns | <input type="checkbox"/> keeping records |
| <input type="checkbox"/> processing products | <input type="checkbox"/> preparing beds | <input type="checkbox"/> lifting heavy machinery |
| <input type="checkbox"/> repairing equipment | <input type="checkbox"/> planting bulbs | <input type="checkbox"/> milking cows |
| <input type="checkbox"/> selling merchandise | <input type="checkbox"/> planting trees/shrubs | <input type="checkbox"/> operating machinery |
| <input type="checkbox"/> taking orders | <input type="checkbox"/> pruning plants | <input type="checkbox"/> planting crops |
| <input type="checkbox"/> taking inventory | <input type="checkbox"/> selling plants | <input type="checkbox"/> repairing machinery |
| <input type="checkbox"/> taking telephone orders | <input type="checkbox"/> watering plants | <input type="checkbox"/> taking soil samples |
| <input type="checkbox"/> working with people | <input type="checkbox"/> working with people | <input type="checkbox"/> working outside |
| | <input type="checkbox"/> working outside | <input type="checkbox"/> working with animals |