

Lesson A1–4

Exploring Career Opportunities in Horticulture

Unit A. Horticultural Science

Problem Area I. Exploring the Horticulture Industry

Lesson 4. Exploring Career Opportunities in Horticulture

New Mexico Content Standard:

Pathway Strand: Employability and Career Development

Standard: XIII: Know and understand the importance of employability skills.

Benchmark: XIII-A: Know the standards and qualifications that must be met in order to enter a given industry.

Performance Standard: 1. Discuss employability in a given industry and factors that effect it in order to evaluate salaries and opportunities. 2. Organize an educational plan to acquire the skills needed in order to join an industry of choice. 3. Identity and demonstrate positive work behaviors and personal qualities required to uphold quality standards.

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

1. List skills you should have to ensure success in a horticulture career.
2. Explain how to prepare for a horticulture career.
3. List examples of horticulture jobs and careers.

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:

Schroeder, Charles B., et al. *Introduction to Horticulture*, Third Edition. Danville, Illinois: Interstate Publishers, Inc., 2000.

Boodley, James W. *The Commercial Greenhouse*, Second Edition. Albany, New York: Delmar Publishers, 1998.

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

Reiley, H. Edward and Carroll L. Shry, Jr. *Introductory Horticulture*, Sixth Edition. Albany, New York: Delmar Publishers, 2002.

Hunter, Sharon, et al. *Developing Leadership and Personal Skills*. Danville, Illinois: Interstate Publishers, Inc., 1997.

Biondo, Ronald J. and Dianne A. Noland. *Floriculture: From Greenhouse Production to Floral Design*. Danville, Illinois: Interstate Publishers, Inc., 2000.

Biondo, Ronald J. and Charles B. Schroeder. *Introduction to Landscaping: Design, Construction, and Maintenance*, Second Edition. Danville, Illinois: Interstate Publishers, Inc., 2003.

List of Equipment, Tools, Supplies, and Facilities

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

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

Arboretum
Botanical garden
Career
Career goal
Garden center
Goal setting
Horticultural garden
Job
Landscape maintenance
Landscape nursery
Nursery production

Occupation
Personal skills

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.

Begin the lesson by having students look through the classified section of the local newspaper. Have students identify jobs related to horticulture and agriculture. Instruct them to choose one and list five to ten skills needed to ensure success in that job. Next, instruct the students to explain how they would prepare for this job. When the students have completed this exercise, call on several to share their information with the class.

Summary of Content and Teaching Strategies

Objective I: List skills you should have to ensure success in a horticulture career.

Anticipated Problem: What are skills you should possess to be successful in a horticulture career?

- I. Horticulture careers require an understanding of both science and business. Opportunities in the horticulture industry are plentiful, but in order to be successful a person must be skilled in a number of areas.
 - A. A person must have an understanding of plant needs and plant growth. Plants can be adversely affected if fertilization, growing schedules, cutting schedules, irrigation, and temperature are not adequately regulated. Likewise, insects and diseases can also be harmful to plant crops if not monitored carefully.
 - B. Mechanical skills are also important in horticulture careers. Irrigation systems require a general understanding of plumbing, heating and ventilation systems in greenhouses may require work, and basic construction may be necessary to build benches or for minor repairs.
 - C. An understanding of marketing skills is also necessary in any horticulture career. It is important to know both the wholesale and retail worth of the product being sold.
 - D. Administrative skills are necessary for anyone who has employees working for them. A business owner or manager is responsible for hiring and firing employees and assigning tasks. Therefore, they must have the skills to be in charge.
 - E. It is also very important for people in horticulture careers to be familiar with the legal aspects of business. Local, state, and national laws must be understood and followed to reduce the risk of legal problems. Laws regarding the proper use of chemicals is especially critical to horticulture employees.

For each skill, list an agriculture class that will help the students develop the skill. Discuss how these skills are important in any agriculture career. Review TM: A1–4A, *Skills Needed in Horticultural Careers*.

Objective 2: Explain how to prepare for a horticulture career.

Anticipated Problem: How can a person prepare for a horticulture career?

- II. A *career* is the direction a person’s life takes as related to their choice of work. Before choosing a career, a person should be involved in horticulture related jobs or occupations to see if that career is the best choice. A *job* is the work a person performs for a salary and benefits. An *occupation* is work that has a title and specified duties.
 - A. To be successful in a career, a person has to be both productive and have the necessary personal skills. *Personal skills* are a person’s abilities to relate to others productively.
 - B. Being successful in a career requires setting and achieving goals. A *career goal* is a level of accomplishment a person wants to attain in a career. Goals can change as a person changes, but goal setting does not. *Goal setting* is the first step in describing what a person wants to do with their life.
 - C. Education and training is also important in preparing for a horticulture career. A person can receive horticulture training in high school, junior college, and college. Education should be related to plant and soil science and plant structures and functions. Training and education is also available through student organizations such as the National FFA Organization.

At this point use one of the many videos or publications available from the National FFA Organization to practice goal setting. Use TM: A1–4B to highlight the terms defined in this objective.

Objective 3: List examples of horticulture jobs and careers.

Anticipated Problem: What are examples of jobs and careers in the horticulture field?

- III. Jobs and careers in horticulture can be in the position of employee or an entrepreneur. An employee is someone who works for someone else, while entrepreneurs work for themselves. Jobs and careers can be in the following industries: landscape horticulture, floriculture, olericulture and pomology, turfgrass, and other general areas.
 - A. Examples of the landscape horticulture industry include:
 1. *Nursery production* involves growing plants in containers or fields. Plants can be grown from seed, cuttings, or grafting. Jobs and occupations in nursery production include: propagator, inventory manager, field supervisor, manager, salesperson, sales manager, and shipping supervisor.
 2. The *landscape nursery* industry prepares sites for landscaping and purchases the items needed for a landscape design. Jobs and occupations in the landscape nursery industry include: construction supervisor, designer, and salesperson.

3. **Landscape maintenance** work involves caring for already established landscapes. Mowing, pruning, weed control, and fertilization are all examples of landscape maintenance work. Jobs and occupations in the landscape maintenance industry include: crew supervisor, superintendent of operations, salesperson, and manager.
 4. The plants and seeds used by commercial growers come from large operations. These large operations are able to mass produce seeds and plants. Examples of jobs and occupations related to this industry include: plant breeder, propagator, independent grower, sales manager, and salesperson.
 5. The heart of the retail nursery industry is the **garden center**. Garden centers offer consumers plant materials and supplies needed to maintain a garden or landscape. Jobs and occupations related to the retail nursery industry include: buyer, landscape designer, plant technician, and manager.
 6. Arboretums, and botanical and horticultural gardens offer both job and educational opportunities for people interested in horticulture. An **arboretum** is a natural setting of trees, shrubs, and vines. A **botanical garden** is a plant collection habitat. And a **horticultural garden** is an arranged garden that contains a variety of horticulture plants. Jobs and careers related to arboretums and botanical and horticultural gardens include: writer, researcher, propagator, educational director, librarian, director, curator, and greenhouse manager.
- B. Examples of the floriculture industry include:
1. Floriculture production involves growing floral plants and materials. Examples of floriculture jobs and occupations include: grower, production superintendent, marketing manager, and inventory controller.
 2. Wholesale florists sell both floral products and materials used in floral designs. Jobs and occupations related to the wholesale floral industry include: manager, buyer, and salesperson.
 3. A retail florist shop is a business where people can find floral products. Jobs and occupations related to the retail floral industry include: store manager, sales clerk, and designer.
- C. Examples of pomology and olericulture industries include:
1. Production varies according to the crop being raised and where it is being raised. Examples of jobs and occupations in food crop production include the manager and field technician.
 2. Marketing is also important in the food crop production industry. Marketing products ensures the best price for both the producer and the consumer. Examples of jobs and occupations in the food crop marketing industry include the sales agent and broker.
- D. Examples of the turfgrass industry include:
1. Sod production is the mass production of turfgrass. Jobs and occupations related to the sod production industry include: farm manager, assistant farm manager, spray technician, and staff leader.

2. Turfgrass establishment is a site where turfgrass has already been installed and requires maintenance. Examples of jobs and occupations in the turfgrass establishment industry include construction superintendent and planting superintendent.
 3. Golf course design and maintenance involves workers designing and caring for golf course landscapes. Jobs and occupations related to golf course maintenance and design include: golf course architect, superintendent, assistant superintendent, irrigation technician, spray technician, landscape technician, and equipment operator.
- E. Other career areas related to horticulture include: horticulture therapist, cooperative extension agent, horticultural specialist, consultant, teacher, research scientist, and plant inspector.

Use TM: A1–4C to review the horticulture industries. This would be a good time to show a video which specifically relates to horticulture careers. Refer to *Introduction to Horticulture* for further information on careers in the horticulture industry.

Review/Summary. Summarize the lesson by reviewing the student learning objectives. The anticipated problems can be used as student review questions. Chapter review questions from the books listed on the resource list may also be useful.

Application. The following student activity can be applied to the student learning objectives: LS: A1–4A—FFA Agriculture Career Center.

Evaluation. Evaluation should be based on student comprehension of the learning objectives. This can be determined using the attached sample written test.

Answers to Sample Test:

Part One: Matching

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

Part Two: Completion

career goal
landscape maintenance
nursery production
garden center
science, business

Part Three: Short Answer

understanding of plant growth and needs, mechanical skills, marketing skills, administrative skills, legal skills
answers may vary, see Objective III A

Test

Lesson A1–4: Exploring Career Opportunities in Horticulture

Part One: Matching

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

- | | |
|--------------------|--------------|
| a. occupation | d. arboretum |
| b. personal skills | e. job |
| c. goal setting | f. career |

- _____ 1. a person's ability to relate to others productively.
- _____ 2. a natural setting of trees, shrubs, and vines.
- _____ 3. the first step in deciding what a person wants to do with their life.
- _____ 4. work a person performs for a salary and benefits.
- _____ 5. work that has a title and specified duties.
- _____ 6. the direction a person's life takes as related to their choice of work.

Part Two: Completion

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

1. A _____ is a level of accomplishment a person wants to attain in a career.
2. _____ work involves caring for already established landscapes.
3. _____ involves growing plants in containers or fields.
4. The heart of the retail horticulture industry is the _____.

Horticulture careers require an understanding of both _____ and _____.

Part Three: Short Answer

Instructions. Provide information to answer the following questions.

List the five skills necessary to be successful in a horticulture career.

Name two areas of the landscape horticulture industry and give examples of two jobs or occupations in that industry.

SKILLS NEEDED IN HORTICULTURE CAREERS

- **Basic understanding of plant needs and growth**
- **Mechanical skills**
- **Marketing skills**
- **Administrative skills**
- **Legal skills**

CAREERS AND GOALS

- **Career**—direction a person’s life takes as related to their choice of work
- **Job**—work a person performs for a salary or benefits
- **Occupation**—work that has a title and specific duties
- **Personal skills**—a person’s ability to relate to others productively
- **Career goal**—level of accomplishment a person wants to attain in a career
- **Goal setting**—first step in describing what a person wants to do with their life

HORTICULTURE INDUSTRIES

- **Landscape horticulture**
- **Floriculture**
- **Pomology and olericulture**
- **Turfgrass**

Lab Sheet

Agriculture Career Center

Instructions: With your teacher's permission, log onto the National FFA Organization web site at www.ffa.org. Using the following steps, find the agriculture career(s) that best suit you.

You should currently be at the FFA home page. Scroll down and click on the *Careers* box on the left side of the screen.

Scroll down. On the left side of the screen click on the line that reads *Ag Career Center*.

Next, click on *Agricultural Career Planning*.

Under *Finding the Right Career For You*, click on *Ag Jobs*.

Click *Enter database*.

Click *Let's try quiz*.

Answer the questions. Then, click *Find my options*. This will give you a list of the agriculture jobs best suited for you.

List the top ten jobs the computer picked out for you.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.