



Activity 1.2.2 Agriscience Careers and Me

Purpose

Science and technology are instrumental for producing and processing of food, fiber, and renewable natural resources, and are the basis for many careers in agriculture. Studying agriscience careers may help you identify an agriscience career right for you and guide you to the appropriate training and experience necessary for a successful and rewarding career.

An estimated 300 different careers await you if you chose a profession in the field of agriculture. There is a need for approximately 400,000 people to fill positions in agriscience careers each year. Of those positions, there are typically only 100,000 filled by people who are educated and trained in agriscience. The remaining openings go to people who are trained in fields outside of agriculture. Openings in agriscience include areas such as mechanics, sales, genetic engineering, nutrition, and extension.

Materials

Per student:

Computer with Internet access
Pencil
Agriscience Notebook

In this activity, you will explore the career opportunities awaiting you in the fields of agriculture and natural resources. First, you will need to access the www.careerwise.mnscu.edu website.

Part One – Careers in Agriculture

1. Go to www.careerwise.mnscu.edu.
2. Select **Explore Careers** at the top left of the screen.
3. Under **Research Careers**, select **Career Clusters and Pathways**.
4. Click on **Career Clusters** and then select **Agriculture, Food, and Natural Resources** from the choices in the center.
5. Read the introductory paragraph and select **Pathways in this cluster**.
6. Within the AFNR cluster, you will see seven career pathways. Take some time to explore each pathway by clicking on the pathway. On *Activity 1.2.2 Student Worksheet*, record the following information for each pathway in Table 1.
 - Brief overview
 - Interesting careers
 - Education requirements

Part Two – Finding Your Interests

1. At the top menu, select **Assess Yourself**.
2. Next select **Take an Assessment**.
3. Select **Interest Assessment**.
4. Read the information about the Interest Assessment and then select **Get Started**.

5. Complete the Interest Assessment. When finished, record the Interest Profile Graph in Table 2.
6. Review the descriptions for your top three letters, and record how each of those letters describes you.
7. Select **Next** and enter the education level that interests you at this time.
8. Select **View careers and majors** and review the careers listed.
9. Find two to three careers that interest you and record in the first row of Table 3.
10. Select each career you have chosen and review the *Quick Facts* and links associated with the career. Note the items about the career that interest you in the second row of Table 3.
11. Select the **Majors** tab at the top of the screen. Review the Majors listed and find two or three that interest you and record in the first row of Table 4.
12. Click on each major you have chosen and review the links associated with the major. Record the items about the major that interest you in the second row of Table 4.
13. Insert a completed copy of *Activity 1.2.2 Student Worksheet* into clear plastic sheets in *Section I Careers* of your *Career Portfolio*.

Conclusion

1. Which of the pathways reviewed in Part One interests you the most?

food products and processing

2. How did your interests relate to the careers and majors you selected?

Computer Engineering, computer programming, any kind of computer stuff in general and engineering technology.

3. List three characteristics that make the careers you chose appealing to you. Because I like to build stuff with my hands and I like computers and I like technology.

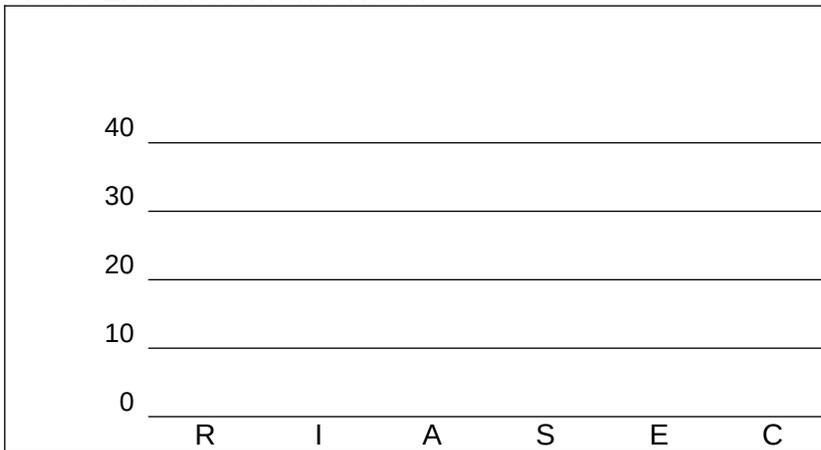
Activity 1.2.2 Student Worksheet

Table 1. Agriculture Pathways

Pathways	Overview	Careers	Education Requirements
Agribusiness Systems	The agribusiness systems pathway includes occupations involved in the coordination of all activities that contribute to the production, processing, marketing, distribution, financing and development of agricultural commodities, plant and animal products, and other natural resources.	Farm and home management advisors. see other Career.	Bachelors Degree (4 years)
Animal Systems	The animal systems pathway includes occupations related to the raising and caring of animals and developing more efficient ways of producing and processing meat, poultry, eggs and dairy products. Workers study genetics, nutrition, reproduction, growth and care of domesticated farm animals. Includes workers who provide medical service to farm and nonfarm animals.	Animal Scientists Biochemists and Biophysicists Veterinarians see other careers	Advances Degree (4+ Years)
Environmental Service System	The environmental service systems pathway includes occupations involved in water and air pollution control, recycling, waste disposal and public health issues. Work includes hazardous-waste management, research, and quality control.	Hazardous Materials Removal Workers. Pest Control Workers. See Other Career.	Less Than 1 Year
Food Products and Processing Systems	The food products and processing systems pathway includes occupations involved in bulk food production, the discovery of new food sources, the analysis of food content, and the development of ways to process, preserve, package or store food according to consumer needs, and. Includes those who monitor compliance with industry and government regulations.	Food Bachmakers. Food Cooking machine Operators. Meat Poultry and Fish Cutters. See other Careers.	High School Diploma or GED
Natural Resources Systems	The natural resources systems pathway includes occupations that develop, use, maintain, manage, and analyze natural resources. Includes catching and trapping various types of marine life. Work might relate to	Commerical Divers. Fish and Game Wardens. Forest and Conservation. Technicians. See other careers.	1-3 Years

	recreation, wildlife, conservation, mining, logging, or oil drilling.		
Plant Systems Pathway	The plant systems pathway includes occupations related to growing food, feed, and fiber crops, and the study of plants and their growth to help producers meet consumer demand while conserving natural resources and maintaining the environment. Work might include nutritional analysis or genetic engineering.	Farmers and Ranchers See Other Careers.	Advanced Degree (4+ Years)
Power, Structural, and Technical Systems Pathway	Power, structural, and technical systems workers apply knowledge of engineering, hydraulics, pneumatics, electronics, power, structures, and controls to the field of agriculture. They design agricultural structures as well as machinery and equipment.	Agricultural Engineers See Other Careers.	Bachelor's Degree (4 Years)

Table 2. Interest Profile Results



R = Realistic	Total: 26
I = Investigative	Total: 17
A = Artistic	Total: 38
S = Social	Total: 20
E = Enterprising	Total: 26
C = Conventional	Total: 29

Top Letter:
Artistic
Second Letter:
Conventional
Third Letter:
Enterprising

Table 3. My Career Options

Graphic Designers	Video Game Designers	Editors
Graphic Designers create and design products to meet specific promotional needs. They create packaging, displays, or logos. They may use a variety of tools to create artistic effects.	Video Game Designers create the core features of video games. They may decide on the rules of the game, the story lines, and character biographies. They may also create and maintain documentation on video games.	Editors plan, coordinate, and edit written material for publication. Some edit technical documents.

Table 4. My College Major Interests

Major: Audiovisual Communications Technologies/Technicians	Major: Graphic Communications	Major: Precision Systems Maintenance and Repair Technologies
Audiovisual communications technologies/technicians programs prepare students to operate and maintain camera and lighting equipment and to produce finished still, video, and film products, to produce radio and television programs, and to produce sound recordings.	Graphic communications programs prepare students to prepare and distribute graphic communication products, including letterpress, screen printing, foil stamping, digital imaging, and other reproduction methods.	Precision systems maintenance and repair technologies programs teach students how to make, repair, maintain, and modify a variety of items including firearms, locks, safes, musical instruments, watches, and jewelry.