



# Bridges Career Academy

## Agriculture, Food and Natural Resources

### Staples-Motley High School

Introduction to careers in agriculture. Develop projects to explore animal, plant, and natural resources sciences, complete research and learn new skills through hands-on projects and real-world experiences.

### Academic Courses

- Fish and Wildlife Management I
- Geographic Information Systems
- Plant Science I
- Animal Science I
- Natural Resource Science I
- Agri-Science

### Career Experiences

- Learn from industry speakers
- Tour a local business
- Attend the Bridges Career Exploration Day or other regional career fairs
- Participate in FFA state and national leadership events

### Completion Standards

COMPLETE

**3 of the 6 courses**

GRADES **B** ↑

Earn a **certificate** and **green cord** at graduation



**Explore types of careers**  
[www.careerwise.minnstate.edu/careers](http://www.careerwise.minnstate.edu/careers)

**Review the local job outlook**  
[www.careerwise.minnstate.edu/jobs](http://www.careerwise.minnstate.edu/jobs)

**Find postsecondary programs**  
[www.careerwise.minnstate.edu/education](http://www.careerwise.minnstate.edu/education)

### Job Skills

In addition to having technical skills, employers expect workers in this industry to have these skills:

- Written communication skills
- Ability to work with other professionals
- Ability to manage materials and supplies
- Problem solving skills



[www.BridgesConnection.org/StaplesMotley](http://www.BridgesConnection.org/StaplesMotley)

# Agriculture, Food and Natural Resources Career Academy

## Staples-Motley High School

The Agricultural, Food and Natural Resources Academy provide students with an introduction to the careers in agriculture. Students will develop projects to explore animal, plant, and natural resources sciences, complete research and learn new skills related to this career academy. Hands-on projects and real-world experiences are an integral part of this academy. For those interested in working in the natural world, and want to continue their education, this Academy is for them.

### ACADEMY COURSES

#### **Fish and Wildlife Management I** —.5 High School Credit

If you have interest in upland game birds, small mammals, large mammals and non-game wildlife you will enjoy this class. This course is designed to look closely at the biology, ecology and economics of this kind of wildlife in Minnesota. Examine habitat requirements of these species. Identification of the birds, mammals, fish and insects will be emphasized. Students will learn hands on taxidermy. Students will study the wildlife at the school forest.

#### **Geographic Information Systems** — .5 High School Credit

This is a computer-based and geo-reference based course designed for students with interest in natural resources, engineering, historical, and social systems. Students in this course will be using Geographic Positioning Systems (GPS) in conjunction with Geographic Information Systems (ARCGIS 10.0) to create and manipulate maps that can be applied to thousands of geo-spatial situations to make decisions. This course examines principles, capabilities, and limitations of digitizing information spatially using GIS. Students will also examine how GIS can be used in a variety of career fields which can improve your employability and wages in future career. GIS software analyzes selected environmental, social, and economic issues through spatial analysis.

#### **Plant Science I** — .5 High School Credit

Students will design and construct landscapes using recognized design techniques. Students will also learn about site selection and design implementation. In addition, this practical outdoor laboratory course will allow students to develop and maintain multiple landscape projects. In addition students will learn about the anatomy and physiology of plants.

#### **Animal Science I** — .5 High School Credit

This is a University of Minnesota Introduction to Animal Science (ANSC 1101) course with emphasis on genetics, physiology and nutrition. The course includes a study of production systems relative to the horse, dairy, sheep, poultry, swine and beef industries. Additional topics include man's relationship to animals, current issues and future perspectives of animal agriculture. Students will experience laboratories at the University of Minnesota relating to Animal Science. Students will be concurrently enrolled at the University of Minnesota and upon successful completion of this class; students will have four semester credits posted to their college transcript.

#### **Natural Resource Science I** — .5 High School Credit

Students will learn the biological aspects of trees; which include anatomy and physiology, growth, and development. Students will study soil structure, nutrient analysis, erosion and erosion control methods. Students will learn how to preserve, protect and manage our forest and soil resources. Environmental and economic factors, along with ecological relationships will be used to learn about and analyze our forest and soil resources.

#### **Agri-Science** — .5 High School Credit

This course is designed for students who want to enhance leadership skills, personal growth and career success in their community. We will explore such topics as biotechnology, horticulture, plant and animal science, wildlife, natural resources, commodity marketing and leadership skills.

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# Agriculture, Food and Natural Resources Career Academy

## Staples-Motley High School

### COMPLETION STANDARD

Students wishing to receive a certification must complete three of the six courses listed and earn a minimum of a 'B' grade in each course taken.

### CAREER EXPERIENCES

Students will explore and research careers with industry speakers, tours, and attend the Bridges Career Exploration Day event and other regional career fairs. In addition, students will attend FFA (Future Farmers of America) state and national leadership events.

### JOB SKILLS

In addition to having technical skills, employers expect their workers to have other skills such as:

- Written communication skills
- Ability to work with other professionals
- Ability to manage materials and supplies
- Problem solving skills

**CAREER OPTIONS:** [www.careerwise.minnstate.edu/careers](http://www.careerwise.minnstate.edu/careers)

**JOB OUTLOOK:** [www.careerwise.minnstate.edu/jobs](http://www.careerwise.minnstate.edu/jobs)

**POSTSECONDARY PROGRAMS:** [www.careerwise.minnstate.edu/education](http://www.careerwise.minnstate.edu/education)

