



# Bridges Career Academy

# Intro to Natural Resources

## Aitkin High School

Introduction to the careers in natural resources. Learn about water, soil, wildlife, and fisheries from a natural resources and conservation perspective. Gain skills in survey techniques, scaling timber, and evaluating habitats. Highlights for this academy take the student into the studio as they create real-life images of wildlife and nature. Work with professionals to analyze environmental issues and learn conservation techniques. Designed for students interested in environmental studies and a hands-on career.

## Academic Courses

- Woods, Water and Wildlife
- Ornithology/Ichthyology
- Wildlife Art

## Career Experiences

- Tour local forest areas
- Listen to industry speakers
- Build fishing equipment & learn taxidermy
- Attend the Bridges Career Exploration Day or other regional career fairs

## Completion Standards

COMPLETE



**All courses**

GRADES

**B** ↑

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



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## 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
- Decision Making Skills



# Introduction to Natural Resources Career Academy

## Aitkin High School

The Natural Resources Academy provides students with an introduction to the careers in the areas of natural resources. Students will learn about water, soil, wildlife, and fisheries from a natural resources and conservation perspective. Survey techniques, scaling timber, and evaluating habitats are just part of the skills students will learn. Highlights for this academy take the student into the studio as they create real-life images of wildlife and nature. Students work with professionals as they analyze environmental issues and learn conservation techniques. The Academy is designed for students interested in environmental studies and a hands-on career.

### ACADEMY COURSES

#### **Woods, Water and Wildlife** — 1 High School Credit

This class is designed for students interested in careers in forestry, wildlife, environmental sciences or natural resources. Students will study forests, timber growth, management and harvesting. Chainsaw maintenance and logging equipment are an integral part of the class. There will be labs in areas of tree identification, scaling timber, and identifying, maintaining and using forestry equipment. Students will also explore the wildlife area of conservation and preservation of waterfowl, small game and large mammals of Minnesota. Students will explore careers in the wildlife management as well as other related fields. Students will perform topic related labs to further gain understanding of wildlife concepts such as fishing rod construction and taxidermy.

#### **Ornithology/Ichthyology** — 1 High School Credit

Ornithology is the study of birds. An emphasis will be on Minnesota birds. Identification, habitat migration, anatomy and physiology of birds will be covered. Field studies will be encouraged. A field trip to Rice Lake National Refuge is planned, as well as trips to other areas. Ichthyology is the branch of zoology that revolves around the structure, function, history and economic importance of the fishes. Discussed in this course will be the similarities and differences between bony fish, the cartilaginous fish, and the jawless fish. Additionally, a focus on the six life processes (movement, metabolism, adaptation, growth, response and reproduction) and how they apply to the world of the fish will be stressed. During the course an emphasis will be placed on some of our more “famous” local species. Lastly, all students will be required to research and orally report/present to the class regarding one of these local aquatic denizens.

#### **Wildlife Art** — 1 High School Credit

Students spend half of the time in a studio course and the other half outside drawing through direct observation of the various Minnesota animal species. Studio production focuses on the techniques used to create realistic images of nature and wildlife. Students will experience working with live animals in their classroom as models. Various media will be used including drawing and scratchboard. Students combine drawing, science and writing to keep a nature journal through direct observation.

### COMPLETION STANDARD

Students wishing to receive a certification must complete all courses, earn a minimum of a ‘B’ grade.

### CAREER EXPERIENCES

Students will explore and research careers with industry speakers and participate in career fairs. In addition, students will tour local forest areas, build fishing equipment and learn taxidermy methods. Students use live animals as models and tour Brainerd’s Wildlife Park.

-OVER-



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### **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 and Decision-making skills

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

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