



# Bridges Career Academy Natural Resources

*Verndale High School*

Introduction to careers in natural resources, such as forestry, animal and plant sciences — from a natural and scientific perspective. Develop projects while exploring animal, plant, and natural resources sciences, complete research and develop new skills related to working in the natural environment. Hands-on projects and real-world experiences. Learn navigational techniques, identify animals, and grow plants. Prepare to continue education.

## Academic Courses

- Forestry & Wildlife
- Horticulture
- Environmental Biology
- Animal Science
- Biology
- Natural Resources/Minnesota Wildlife

## Career Experiences

- Listen to industry speakers
- Tour local businesses
- Attend the Bridges Career Exploration Day or other regional career fairs
- Plant and sell products

## Completion Standards

COMPLETE

**3 of 6 courses**

GRADES

**B↑**

ATTENDANCE

**90%**

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



# Natural Resources Career Academy

## Verndale High School

The Natural Resources Academy provides an introduction to the careers in natural resources, such as forestry, animal and plant sciences — from a natural and scientific perspective. Students develop projects as they explore animal, plant, and natural resources sciences, complete research and develop new skills related to working in the natural environment. Participate in hands-on projects and real-world experiences. Learn navigational techniques, identify animals, grow plants and understand human impact on the environment. This Academy is for students interested in environmental studies and want to continue to post-secondary.

### ACADEMY COURSES

#### **Forestry and Wildlife** — 1 High School Credit

Students will learn not only to identify trees but to manage forests fiscally. Timber cruising, using navigational instruments such as a compass and legal land description exercises are included in the course. Students will learn about birds, deer, fish and other mammals.

#### **Horticulture** — 1 High School Credit

This course gives students an opportunity to explore plants propagation by planting seeds, preparing soft and hard wood cuttings, separating and divisional grafting, budding, and layering. Students will work in the greenhouse and sell the plants they have grown.

#### **Environmental Biology** — 1 High School and/or 3 College Credits

This course takes a holistic approach to status and prospects of earth's life support systems emphasizing human impact on the environment. Topics include interrelationships of organisms and their environment, population dynamics, pollution, major ecosystems, examination of causes and possible solutions to major local, national and global environmental problems.

#### **Biology** — 1 High School Credit

Students will learn to compare the differences between living and non- living things and between different kingdoms of living things to develop skills in observing the similarities and differences among organisms to determine who those differences exist. They will acquire a better understanding of organisms and they will sharpen their powers of observation while applying the scientific methods in experiments,

#### **Animal Science** —1 High School Credit

This course covers topics in animal selection in the areas of beef, dairy, swine, sheep and horses. Areas in animal digestion, food nutrients, and feed selection and balancing are also covered. Students will learn to plan and develop a livestock operation including management and budget.

#### **Natural Resources and Minnesota Wildlife** -- 1 High School Credit

This course introduces students to Minnesota's wildlife such as whitetail deer, black bears, moose, and wolves. Students study habitats, population management, feeding plots, predation and diseases related to the wildlife. In addition, lakes and streams dynamics and ecosystems as well as fishing techniques and natural baits are covered.

### COMPLETION STANDARD

Students wishing to receive a certification must complete 3 or the 6 courses, earn a minimum of a 'B' grade, have 90% attendance and complete assignments on time.

### CAREER EXPERIENCES

Students will explore and research careers with industry speakers, and attend the Bridges Career Exploration Day event and other regional career fairs. In addition, students will tour a greenhouse, and plant and sell a variety of products.

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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)

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

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