



Bridges Career Academy Natural Resources

Pillager High School

Introduction to environment through the exploration of the diversity of life and ecological roles of plant and animal phyla. Learn areas of land measurement, conservation, and ecological systems. Understand the complex and ever changing political and economic nature of energy and raw material consumption. Study the components of living and nonliving natural resources, as well as the mammals specific to Minnesota.

Academic Courses

- Natural Resources I
- Natural Resources II
- Environmental Biology
- Aquatic Biology
- Wildlife Management
- Vertebrate Zoology

Career Experiences

- Listen to industry speakers
- Job shadow at Camp Ripley, MN DNR or US Forest Service
- Participate in Community Arbor Day celebration
- Attend the Bridges Career Exploration Day or other regional career fairs

Completion Standards

COMPLETE

3 of 6 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:

- Active listening and speaking skills
- Complex problem solving
- Oral and written communications skills
- Observation and objective analysis skills
- Scientific inquiry skills



Natural Resources Career Academy

Pillager High School

The Natural Resources Academy provides students an introduction to the environment through the exploration of the diversity of life and ecological roles of plant and animal phyla. Areas of land measurement, conservation, and ecological systems are covered. The complex and ever changing political and economic nature of energy and raw material consumption will highlight this Academy. Students study the components of living and nonliving natural resources as well as the mammals specific to Minnesota. The Academy is designed for students interested in environmental student and a hands-on career and wish to continue to post-secondary education.

ACADEMY COURSES

Natural Resources I — 1 High School and/or 3 College Credits

In this course students will develop an appreciation for the environment by gaining knowledge of the major biological principles as they apply resource utilization. Exploration of the diversity of life and ecological roles of major plant and animal phyla, silviculture, wildlife management and greenhouse production principles will be discussed. In addition, students will discuss the political and economic issues that face the world's resources today.

Natural Resources II — 1 High School and/or 3 College Credits

In this course students will continue to develop knowledge of the major biological principles as they apply resource utilization. Diversity of life and ecological roles of major plant and animal phyla, silviculture, wildlife management and greenhouse production principles will be explored.

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

Students will explore the components of the environment, living and nonliving, the interactions of these components and the impact of human activity on these natural resources. This course is designed to develop skills in scientific inquiry, research and interpretation.

Aquatic Biology — 1 High School Credit

This course introduces focuses on the scientific study of the ecology and behavior of microbes, plants, and animals inhabiting inland fresh waters such as lakes, ponds, rivers, creeks, estuaries, and wetlands. Issues unique to Minnesota are studied through classroom activities, laboratory experiments and field trips to natural and managed communities.

Wildlife Management —1 High School Credit

This course gives students an opportunity to further explore areas the forest and its inhabitants. The course will include history of various species, their characteristic and life cycles, habitat needs and wildlife conservation. Animal clusters will include game birds, fish and mammals.

Vertebrate Zoology — 1 High School Credit

This course is designed to explore the fundamental vertebrate body systems through the comparative study of the anatomy and physiology. Dissections of major system organs and chordate class representatives will be the major component of the lab. Natural history, identification and characteristics of common Minnesota animals for the five classes of vertebrates will also be included.

COMPLETION STANDARD

Students wishing to receive a certification for this academy must complete three of the six courses and earn a "B" or better in each course. Environmental Biology OR an Ecology course will meet the standard.

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CAREER EXPERIENCES

Students will listen to guest speakers, shadow at Camp Ripley, participate in Community Arbor Day Celebration, job shadow and collaborate with Camp Ripley or MN DNR and the US Forestry Service professionals. Practical projects will include the school pond and forest areas. Students will explore career options by attending the Bridges Career Exploration Day event and other regional career fairs.

JOB SKILLS

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

- Active listening and speaking skills
- Complex problem solving
- Oral and written communications skills
- Observation and objective analysis skills
- Scientific inquiry skills

CAREER OPTIONS: www.careerwise.minnstate.edu/careers

JOB OUTLOOK: www.careerwise.minnstate.edu/jobs

POSTSECONDARY PROGRAMS: www.careerwise.minnstate.edu/education

