

DIAL Virtual Fundamental Natural Resources

18504

Instructor:

Ms. Mercedes Lemke

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Suggested Grade Level: 9-12

Rationale Statement:

People depend on Natural Resources. Fundamental Natural Resources provides students with an overview of the planet's natural resource systems, along with examining those resources unique to South Dakota. Students will explore and develop a basic understanding of how the systems relate to one another other. Students will consider the roles people play in, and the occupations related to, managing, using, protecting, and conserving natural resources.

Standards:

FNR 1: Explain the importance of resource and human interrelations to conduct management activities in natural habitats.

FNR 1.1: Explain resource management components to establish or enhance relationships in natural resource systems.

FNR1.2: Apply Geographic Information System (GIS) skills to natural resource activities.

FNR 1.3: Examine planning data to determine natural resource status

FNR 1.4: Discuss weather and other criteria to recognize dangers related to work in the outdoor environment.

FNR 2: Interpret scientific principles of natural resource management activities.

FNR 2.1: Identify and classify plants and animal-based natural resources.

FNR 2.2: Identify natural cycles and related phenomena to describe ecologic concepts and principles.

FNR 2.3: Describe soil composition and properties.

FNR 2.4: Examine wetland, watershed and groundwater properties, classification and functions.

FNR 2.5: Discuss forestry management techniques.

FNR 3: Describe production practices and processing procedures for natural resources.

FNR 3.1: Describe how natural resource products are produced, harvested, processed and used.

FNR 4: Explain responsible practices to protect natural resources.

FNR 4.1: Describe techniques and equipment needed to manage and conserve natural resources.

FNR 4.2: Discuss animal and plant disease symptoms and prevention.

FNR 4.3: Recognize insect types and available controls to prevent insect infestation.

Topics Covered:

- Renewable vs. Nonrenewable Resources
- History of Natural Resource Preservation
- Habitat Destruction
- Ecology
- Soil
- Soil Erosion
- Water Quality and Supply
- Wetlands
- Interactions
- Endangered Species
- Fisheries
- Game Species
- Forest Management
- Surveying and Geographic Information Systems (GIS)

Technology Expectations:

Each student is expected to have access to a computer and internet to complete the course. Should something come up where the student does not have either of these things it is their responsibility to contact the instructor.

Performance Standards

Grades for the course will be based on the following levels of performance and attendance in class:

Grade Performance Standard

A Mastered (Independent) Learner

Did research, designed and planned; applied academic skills; evaluated work and made adjustments; did quality work; needed little help from the teacher; sought found resources independently; demonstrated knowledge with a grade of 94% or higher; can perform course standards and skills independently with no supervision

B Semi-independent (Requires Some Supervision) Learner

Did research, designed and planned; needed some help from the teacher; did quality work with a few flaws; needed feedback from the teacher to realize work did not meet standards; redid work to meet standards; demonstrated knowledge and a grade of 87% or higher; can perform standards completely without supervision/training.

C Dependent (Requires Close Supervision) Learner

Needed help to research, design, and plan; relied a great deal on the teacher; had to be given procedures for performing tasks; required significant help to produce a quality product; needed help to evaluate a product; final product did meet standards; demonstrated knowledge with a grade of 79% or higher; can perform task with close supervision/training.

D Not Mastered Learner

Needed help to research, design and plan or had to be given a plan; relied a great deal on the teacher; had to be given procedures for performing tasks; required significant help to produce a product; needed help to evaluate a product; final product still did not meet standards; demonstrated knowledge with a grade of 70% or higher; requires close supervision and more instruction.

F Failure (No Exposure)

Did not complete projects; if projects were completed, they were of such low quality that they did not pass; failed to document procedures; did not show criteria for determining quality; scored 69% or less; not enough experience or knowledge in this area.

Grading Procedures:

All assignments/assessments are due on the Friday of that given week. This includes test, quizzes and other assignments. Assessments which include short answer questions will need to be hand graded by the instructor so the test score shown on google forms after taking the test is not accurate. Students can expect and accurate updated score by Monday of the following week.

Course Outline:

| Week | Unit | Assignments Due |
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| Week One | Introduction | Goal Paragraphs |

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| | Unit One | Chapter One Assignment |
| Week Two | Unit One | Chapter Three Assignments Chapter Four Assignments |
| Week Three | Unit One | Unit One Test |
| Week Four | Unit Two | Chapter Five Assignment Chapter Six Assignments |
| Week Five | Unit Two | Unit Two Test |
| Week Six | Unit Three | Chapter Nine Assignments Chapter Ten Assignments |
| Week Seven | Unit Three | Chapter Twelve Assignments Unit Three Test |
| Week Eight | Unit Four | Chapter Thirteen Assignments Chapter Fourteen Assignments |
| Week Nine | Unit Five | Chapter Sixteen Assignments Unit Four and Five Test |
| Week Ten | Unit Six | Chapter Nineteen Assignments Chapter Twenty Quizzes |
| Week Eleven | Unit Six | Chapter Twenty-One Quizzes Unit Six Test |
| Week Twelve | Unit Seven | Chapter Twenty-Two Assignments Chapter Twenty-Three Assignments |
| Week Thirteen | Unit Seven | Chapter Twenty-Four Assignments Unit Seven Test |
| Week Fourteen | Unit Eight | Chapter Twenty-Eight Assignments |
| Week Fifteen | Final Test | Test Review |
| Week Sixteen | Final Test | Final Test |