

**Challenger High School**  
**Natural Resources/Wildlife Conservation**  
**CEDARS Code: 18003, 9/7/21**  
**CTN 101**

**Instructor: Michael Thompson**      **Phone: (253) 800-6822**      **Email: [mthompson@bethelsd.org](mailto:mthompson@bethelsd.org)**

**Grade Level:** 9, 10, 11, 12      **Credit** 1.0

**Time Requirements:**

Students will be required to do 5 hours per week of class work, and to do 2 hours of homework per week. Students are required to contact the instructor prior to the any absence in order to determine how the student will make up any missed assignments.

**Course Description:**

Students will study the following concepts as they apply to the world of Wildlife and Natural Resources

**Critical Areas:** Provides instruction in thirteen critical areas:

- America in Crisis
- Ecological Concepts
- Nature of Soils
- Depletion and Restoration of Soils
- Water
- Forest Resource
- Biomes of North America
- Wildlife
- The Ecology and Management of Deer
- Salmonids
- Freshwater Fisheries
- Marine Fisheries
- Careers in Conservation, Fish & Wildlife Management

**This course meets Common Core State Standards as defined by the State and the School District. This course meets the State and School District graduation requirements.**

**Materials (may include but are not limited to):**

- District approved guest speakers
- Internet Sites, Lab experiences, Computer based learning models, Reading materials, Videos
- All materials will be provided by the instructor
- iPad (in lieu of book)

**Assessment (may include but not limited to):**

- Oral/Written expression for mastery understanding of course concepts and demonstration of the application of course concepts.
- Performance based evaluations through labs and projects.
- Progress reports will be done monthly by the instructor.

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**Progress:**

- Student progress is monitored weekly. Student monthly progress is at the discretion of the certificated teacher based on weekly evaluations and the students' ability to complete the required learning benchmarks for that month.
- If a student fails to make collective progress for all weeks, then monthly progress is unsatisfactory. Student monthly progress is specifically evaluated against progress benchmarks, which are clearly defined in the course for each month.
- In addition to the course schedule, these benchmarks may also come in the form of lesson, unit, assignment and/or assessment completion dates.
- These established progress benchmarks will allow teachers and students to assess the students' educational progress in meeting the course learning standards.
- At a minimum, students must turn in at least one assignment per week to maintain a status of "making monthly progress," but will need to complete all the instructor is asking for each week in order to complete the course on time.

**Grading Scale: (Progress reports will be done monthly)**

- **A (90-100%)** Student demonstrates exemplary abilities through scores earned; student showed outstanding mastery of expected skills.
- **B (80-89%)** Student demonstrates adequate abilities through scores learned on assessments; student shows adequate mastery of expected skills.
- **C (70-79%)** Student demonstrates average abilities through scores earned; students showed average mastery of expected skills.
- **D (60-69%)** Student has made a concerted effort to demonstrate the above skills but circumstances have created a situation(s) where this is not possible.
- **F (below 59%) Student has not made effort to demonstrate progress.** Student does not meet academic or attendance expectations in spite of interventions.

**Course Content:**

- Introduction
  - Anthropomorphism & Resource Wheel Classroom
- America in Crisis
  - History of Conservation Movement
  - Conservation Defined
  - Natural Resource Defined
  - Fundamental Principles of Conservation
- Ecological Concepts
  - Photosynthesis
  - Levels of Organization
  - Principles of Ecology
    - Natural Cycles: Carbon Cycle
    - The Nitrogen Cycle
    - The Water Cycle

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- Food Chain
- Nature of Soils
  - Soil Formation
  - Soil Properties
  - Soil Profile
  - Major Soil Groups
- Depletion and Restoration of Soils
  - History of Land Abuse; Foreign & Domestic
  - Nature of Soil Erosion
  - Soil Erosion Control
  - Soil Conservation Service
  - Soil Nutrients
  - Restoration of Soil Fertility
- Water
  - The Hydrologic Cycle
  - Water Use
  - Water Problems
    - Urban Pollution
    - Industrial Pollution
    - Agricultural Pollution
    - Water Pollution Control Measures
- Forest Resource
  - The Value of Forest Resource
  - The Tree: A Living Organism
  - History of Exploitation
  - Forest Conservation by Efficient Utilization
- Biomes of North America
  - Terrestrial Biome
  - The Desert
  - The tundra
  - Grassland Biome
  - Temperate Forest Biome
  - Coniferous Forest Biome
- Wildlife
  - History of Abuse and Depletion
  - Wildlife Management and Restoration
  - Habitat Requirements of Wildlife
  - Animal Movements
  - Population Dynamics
- The Ecology and Management of Deer
  - Breeding and Reproduction
  - Carrying Capacity of the Range
  - Environmental Resistance vs. Biotic Potential
  - Management of Deer Populations
- Salmonids
  - Salmonid Identification
  - External Anatomy
  - Range of Tolerance
  - Life Cycle
  - Hatchery Management
  - Wild vs. Hatchery
  - Endangered Species

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- **Freshwater Fisheries**
  - The Lake Ecosystem
  - Biotic Potential of Fish
  - Environmental Resistance
  - Fish Management
  
- **Marine Fisheries**
  - Commercial Fisheries
  - Major Features of the Marine Ecosystems
  - Marine Food Chains/Energy Conversions
  - Marine Mammals
- **Careers in Conservation, Fish & Wildlife Management**
  - Leadership Skills in the Classroom
  - Conservation Office
  - Game Biologist
  - Fish & Wildlife Technician
  - Zoologist
  - Forestry

**Relationships to other Content Areas:**

- Completion of this course will require the student to integrate: mathematical, logical linguistic, social, historical, societal, technological, and writing skills.

**Class Expectations:**

- No cell phones
- Students will be required to work in small groups
- Students will be to class on time
- Student will demonstrate self-discipline, acting in a manner that does not detract from the learning of others.
- Please be in class, on time, regularly. Many experiences we do cannot be re-created on an individual basis.
- It is the student's responsibility to get assignments and activities that have been missed due to absence.
- Students will work with personnel from the Department of Fisheries, Pierce County Conservation District and the Puyallup Indian Tribe on projects and field trips to help blend classroom instruction with real life practices.