

Course Title: Environmental Science Fall

Department: Science

Unit Name: Introduction & Safety

Topics:

- Lab Safety
- Ecological Concept Review Cycling of Matter, Flow of Energy

School Competencies:

- Readiness (Awareness Foundational)
- Executive Functioning (Wellness)

Course Competencies:

• n/a

Formative Assessments:

• n/a

Summative Assessments:

Safety Quiz



Unit Name: Land, Water, & Community Ecology

Topics:

- Watersheds
- Stream Health & Water Chemistry
- NH Fish Species
- Community Ecology

School Competencies:

- Critical Thinking (Problem Solving & Analysis Foundational)
- Interpretation (Problem Solving & Analysis Foundational)
- Logical Processing (Problem Solving & Analysis Foundational)

Course Competencies:

- Ecology & Energy
- Sustainability & Energy
- Human Interactions & Ecology

Formative Assessments:

- Daily Check-in Questions for every class period
- Field Work Data: Water Chemistry Data Collection and Analysis
- Model My Watershed, pt. 1
- ArcGIS: How Clean is Your Watershed?
- Lab: Water Chemistry

Summative Assessments:

- Project: Water Quality Report
- Written Exam: Land, Water & Community Ecology



Unit Name: Climate Change & Stormwater Management

Topics:

- Runoff and infiltration
- Stormwater management
- LID principles
- Climate Change & Climate Adaptation

School Competencies:

- Critical Thinking (Problem Solving & Analysis Foundational)
- Interpretation (Problem Solving & Analysis Foundational)
- Logical Processing (Problem Solving & Analysis Foundational)
- Innovation (Problem Solving & Analysis Advanced)
- Sustainable Living (Wellness Advanced)

Course Competencies:

Human Interactions & Ecology

Formative Assessments:

- Daily Check-in Questions for every class period
- Stormwater Management & Photo Challenge
- Model my Watershed, pt. 2
- Model my Watershed, pt. 3
- Documentary: Water Blues, Green Solutions

Summative Assessments:

- Project: Stormwater Management & Low Impact Development (student chosen location)
- Exam: Stormwater & Low Impact Development Practice & Principles



Unit Name: Resource Management - Forestry

Topics:

- Climate Change & Natural Resources
- NH Timber Industry Tree ID, Forest Community ID, Calculating Timber
- Invasive Species Impact on Forests

School Competencies:

- Critical Thinking (Problem Solving & Analysis Foundational)
- Interpretation (Problem Solving & Analysis Foundational)
- Logical Processing (Problem Solving & Analysis Foundational)
- Innovation (Problem Solving & Analysis Advanced)
- Sustainable Living (Wellness Advanced)

Course Competencies:

- Sustainability & Energy
- Human Interactions & Ecology

Formative Assessments:

- Daily Check-in Questions for every class period
- Lab: Forest Habitat Types
- Practice: Calculating Merchantable Lumber
- Activity: Invasive Species Impact on Forests

Summative Assessments:

- Lab Practical: Forest Management Concepts
- Exam: Forestry Management Scenario