

**Agriculture Standards**

**Wetlands**

**Course Overview:** This class will study the basics of wetlands and the benefits and problems they have. Plants and animal that inhabit the wetlands will be discussed.

**Unit 1: Wetlands and the Benefits (5 days)**

**Description:** The different kinds of wetlands will be explained. The fen, swamp, the marsh and the bog will be studied. Their benefits to people and wildlife will be discussed.

**Standard:**

Students will be able to identify the various types of wetlands and the life which evolves through them. ESS2.d.9.h. ESS2.d.10.h ESS2.d.11.h. NR2.c.18.h

**Unit 2: Freshwater Fish Management (16 days)**

**Description:** The many different kinds of freshwater fish will be studied. Where these fish varieties thrive will be studied.

 **Standards:**

1. Students will learn Wisconsin Game fish Identification NR3.a.16.h.
2. Fishery management will be discussed. (Chapter 24)
3. Lake habitat will be discussed NR2.c.18.h NR2.d.18.h
4. Stocking fish in area lakes will be studied. NR2.b.7.h.
5. Fish Terminology (Chapter 16) NR3.a.16.h.

**Unit 3: Waterfowl (1 week)**

**Description:** The different kinds of waterfowl will be learned. Their migratory paths will be discussed.

**Standard:**

Students will learn Waterfowl Identification NR3.a.16.h**.**

**Unit 4: Aquaculture (1 week)**

**Description:** The definition of aquaculture will be discussed. The different kinds of farmed fish will be studied along with the different requirements of each species.

**Standards:**

1. Students will learn the definition of Aquaculture and its benefits.FPP4.b.7.h BT2.c.9.h
2. b. Students will discuss the species of fish commonly used and raised for aquaculture. (Tilapia, crawfish, act.) NR1.b.15.h. NR.c.17.h.

**Unit 5: Aquaculture Marketing (3 days)**

**Description:** The different methods of harvesting and marketing of water farmed fish, alligators, crustaceans, and animals will be previewed in this lesson.

**Standards:**

1. Marketing functions NR4 .a.3.h.
2. Product development project NR3.a.17.h PS5.a.3.h. PS3.d.3.h

**Unit 6: Marine Fisheries Management (3 days)**

**Description:** This is the study of ocean fish and shell fish. Harvesting methods will be studied. Studied are different terms of the ocean fish and the gathering of them for market.

**Standards:**

1. Chapter 23 of Managing our Natural resources...NR2.c.18.h NR.1.a.5.h
2. Students will learn large scale marine fisheries NR1.b.14.h

**Unit 7: Water Supply and Water Users (1 week)**

**Description:** The management of the water runoff and watershed management will be discussed. Local government rules regarding watersheds will be studied. This section will study the terminology of slopes and diagnose water runoff issues.

 **Standards:**

1. Chapter 11 of managing our natural resources ESS3.c.h. NR1.a.5.h.
2. Groundwater management ESS2 a.9.h SS2.c.15.h ESS4.a.6.h.

**Unit 8: Water Pollution (1 week)**

**Description:** Actual videos of local water runoff issues will be watched. Pollution from landfills and the effect on ground water is studied.

 **Standards:**

1. Chapter 12 of managing our natural resources ESS1.a.6.h
2. Effects of water pollution on people and natural resources ESS2.c.14.h ESS3.a.5.h. ESS3.a.6.h ESS3.b.14.h.

**Unit 9: Eutrophication/ Lake Ageing (1 week)**

**Description:** The different stages that a large body of water undergoes especially in our local lakes will be observed. Local water testing will be performed.

 **Standards:**

1. Eutrophication NR2.d.16.h. ESS2.c.13.h
2. Types of Lakes
3. Classifying Barron County Lakes ESS2.d.12.h NR1.a.6.h NR2.a.9.h NR2.b.7.h NR2.b.8.h

**Unit 10: Fish Taxidermy (10 days)**

**Description:** The ability to dry fish and preserve them in their original color is fascinating. Students will do some basic taxidermy.

 **Standards:**

1. Taxidermy project NR3.a.17.h
2. Guest Speaker Taxidermist

**Unit 11: Waste Management (2 days)**

**Description:** The chemical process of treating waste water back into steam water will be learned. Some local water testing can be done with students on PH and clarity.

 **Standards:**

1. Chapter 13 of Managing our Natural Resources ESS3.b.13.h
2. b. Local, state, and National regulations of water waste management will be discussed. ESS2.c.14.h ESS3.a.5 ESS3.a.6.h ESS3.b.14.h.

**Unit 12: Outdoor Classroom/School Forest and Ponds (2 weeks)**

**Description:** This unit be done outdoors and encompass all that the students have learned during the semester. Field trips to the glacial formations in St. Croix Falls will be done. We might try some fishing on ponds mainly for identification.

 **Standards:**

1. Soils PS2.b.7.h
2. Glaciers NR2.d.16.h.
3. Aquatic plant ID PS1.a.8.h.
4. Clean-up projects NR3.a.16.h.
5. Watersheds NR2, d, 16.h.
6. water testing standard ESS2:a.9.h
7. Fishing NR3.a.21.h. NR3.a.16.h.

**Unit 12: SAE Units and Natural Resources Careers**

**Description:** By observing students throughout the semester, I can encourage students to start a supervised Agriculture Experience, which will develop them as leaders and help with possible career choices.

 **Standards:**

1. The students will learn about the history of the FFA organization.LE.1.b.5.m
2. The students will learn how FFA activities can be important in their lives.LE.1b.6.m
3. Students will get a chance to meet state FFA officers and listen to different public speakers.LE1.c.4.m.LE, LE.c...5.m.
4. Students will do personal leadership reflections.