

Warren County School District

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Ornithology

Course Number: 00378

Course Prerequisites: _____

Course Description: (Include “no final exam” or “final exam required”)

This semester course introduces the student to avian biology, ecology and migration. It includes the study of birds, their identification by sight, life histories and ecology. Students will conduct basic research in avian biology including migration and breeding. Students will keep a field notebook to record their sightings. An emphasis will be placed on local birds, non-threatened and threatened as well as endangered species. Classroom studies are combined with labs and field studies.

Suggested Grade Level: 11-12

Length of Course: X One Semester Two Semesters Other
(Describe)

Units of Credit: .5 (Insert NONE if appropriate.)

PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certification(s)
(Insert certificate title and CSPG#) Biology

Certification verified by WCSD Human Resources Department:
X Yes No

Board Approved Textbooks, Software, Materials:

Title:

Publisher:

ISBN #:

Copyright Date:

Date of WCSD Board Approval:

BOARD APPROVAL:

Date Written: September 2009

Date Approved: _____

Implementation Year: _____

Suggested Supplemental Materials: (List or insert **None**)

Course Standards

PA Academic Standards: (List by Number and Description)

3.1.12 Unifying Themes

- B. Apply concepts of models as a method to predict and understand science and technology.
- C. Assess and apply patterns in science and technology.

3.2.12 Inquiry and Design

- B. Evaluate experimental information for appropriateness and adherence to relevant science processes.
- C. Apply the elements of scientific inquiry to solve multi-step problems.

3.3.12 Biological Sciences

- A. Explain the relationship between structure and function at all levels of organization.

3.7.12 Technological Devices

- B. Evaluate appropriate instruments and apparatus to accurately measure materials and processes.

4.3.12 Environmental Health

- C. Analyze the need of a healthy environment.

4.6.12 Ecosystems and their Interactions

- A. Analyze the interdependence of an ecosystem.

4.7.12 Threatened, Endangered and Extinct Species

- A. Analyze biological diversity as it relates to the stability of an ecosystem.
- B. Examine the effects of extinction, both natural and human caused, on the environment.
- C. Analyze the effects of threatened, endangered or extinct species on human and natural systems.

WCSD Academic Standards: (List or None)

None

Industry or Other Standards: (List, Identify Source or **None**)

None

WCSD EXPECTATIONS

WCSD K-12 Expectations for instruction in writing, reading, mathematics and, technology have been developed and revised annually. The teacher will integrate all WCSD Expectations into this planned instruction.

SPECIAL EDUCATION AND GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student's Individual Education Plan (IEP) or Gifted Individual Education Plan (GIEP).

SPECIFIC EDUCATIONAL OBJECTIVES/CORRESPONDING STANDARDS AND ELIGIBLE CONTENT WHERE APPLICABLE

(List Objectives, PA Standards #'s, Other Standards (see samples at end))

This course is written to the 12th grade standards. No assessment anchors have been written for this level.

ASSESSMENTS

PSSA Assessment Anchors Addressed:

Suggested Formative Assessments: The teacher will develop and use standards-based assessments throughout the course.

- Pre-Assessments of prior knowledge (e.g. entrance cards or KWL chart)
- Labs/lab reports
- Bell ringers/Problems of the Day(PODs)
- Discussions
- Teacher observation/Questioning
- Graphic organizers (e.g. Venn diagrams, word mapping, webbing, KWL chart, etc.)
- Summarizing
- Retelling
- Notetaking
- Problem-based learning modules
- Authentic assessment
- Oral presentations
- Outlining
- Journaling
- Student presentations/projects
- Open-ended response
- Quizzes/tests
- Activities
- Classroom Performance System (CPS)
- White boards

Suggested Summative Assessments:

- Essays
- Open-Ended Responses
- Projects
- Quizzes/tests
- Student presentations
- Portfolios
- Lab Practical
- Lab Report

District Approved Assessment Instruments

- PSSA Tests-Grades 4, 8 and 11 only

Differentiated Instructional Assessment Strategies

Portfolio Assessment: _____ Yes X No

District-wide Final Examination Required: _____ Yes X No

Course Challenge Assessment (Describe):

REQUIRED COURSE SEQUENCE AND TIMELINE

(Content must be tied to objectives)

This is a topical outline. Specific content is identified in the assessment anchors.

Content Sequence	Dates
I. Ornithological studies, organizations, tools, economics	1 week
A. Special area projects, important bird areas and bird surveys	
B. Local, state and national organizations	
C. Binoculars, field notebook, scope, and field guides	
D. Value of birdwatching(economic and scientific)	
II. Bird Topography and classifications	1 week
A. Head	
B. Body	
C. Hierarchical arrangement of orders	
III. Identification of raptors and songbirds	3 weeks
A. Hawks, owls, eagles, swans	
B. Passerines	
IV. Identification of waterbirds and shorebirds	2 weeks
A. Ducks, geese, swans	
B. Herons, bitterns	
C. Gulls	
D. Sandpipers to snipe	
V. Identification of non-passerines	2 weeks
A. Woodpeckers	
B. Galliformes	
C. Other common birds/not so common birds	
VI. Bird morphology and adaptations	2 weeks
A. Bills	
B. Feet	
C. Feathers	

- VII. Bird behaviors 2 weeks
 - A. Territoriality, breeding, nesting
 - B. Feeding
 - C. Flocking/migration
- VIII. Bird conservation 2 weeks
 - A. Fragmentation and habitat loss
 - B. Diversity and exotics
 - C. Environmental impacts and restoration
- IX. Avian ecosystems of Pennsylvania 3 weeks
 - A. Woodland/shrub
 - B. Grassland/field
 - C. Wetland/aquatic areas

Objectives:

1. Examine the diversity of various avian groups.
2. Identify species of avifauna of Pennsylvania.
3. Describe the natural history, ecology, and status of some Pennsylvania birds.
4. Explain the relationships between biodiversity and environmental health.
5. Describe the niches of selected species and explain how the decline or loss of the species would affect the ecosystem.
6. Collect data in a field notebook and record a lifelist of identified species.
7. Submit data to the Pennsylvania Society of Ornithology and/or other appropriate agencies.
8. Group birds into their respective orders.
9. Describe how the structures of birds relate to their behaviors.
10. Identify the adaptations of birds to their environment.
11. Use tools and resources to correctly identify bird species and behaviors.
12. Explain ecosystem conservation and the problems affecting avian ecosystems including political boundaries.

WRITING TEAM:

WCSD STUDENT DATA SYSTEM INFORMATION

1. Is there a required final examination? X Yes No
2. Does this course issue a mark/grade for the report card?
 X Yes No
3. Does this course issue a Pass/Fail mark? Yes X No
4. Is the course mark/grade part of the GPA calculation?
 X Yes No
5. Is the course eligible for Honor Roll calculation? X Yes No
6. What is the academic weight of the course?
 No weight/Non credit X Standard weight
 Enhanced weight (Describe)