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Pittsburgh Voyager Teacher Training Workshop  
Environmental Science Sessions: February 26 and March 5, 2005  
Lesson Plans

SUBJECTS: Language Arts

GRADE LEVEL: 7

LENGTH: Five 44-minute periods

TOPIC: Read chapters from One Day at Teton Marsh to gain an understanding about ecosystems supporting a web of life

OBJECTIVES:

- \*The student will work co-operatively with a partner and later a small group
- \*The student will define a list of science terms related to the reading selection
- \*The student will select an organism and identify its niche, food source/supply, place in the food chain, and relationship with other organisms in the same habitat
- \*The student will write a report about the findings
- \*The student will identify specific words used by the author to give human characteristics (anthropomorphism) to the organism
- \*The student will complete a graphic organizer
- \*The student will compare and contrast information about organisms
- \*The student will give an oral presentation

STANDARDS: Refer to the Pennsylvania Academic Standards Categories for Reading, Writing, Speaking and Listening (Grade 8) for the Language Arts standards reflected in this lesson

MATERIALS:

- \*25 copies of the book One Day at Teton Marsh by Sally Carrighar, 1979, University of Nebraska Press
- \*Large map of the United States
- \*Large map of Wyoming
- \*Lined writing paper
- \*Overhead projector, transparencies, colored markers
- \*Handout of science terms
- \*Computers with internet access
- \*Book cart with books and charts borrowed from the library and science department

- \*Guided reading worksheet
- \*TVVCR
- \*Video of "One Day at Teton Marsh"
- \*Quiz

PROCEDURE:

1. Distribute copies of the book One Day at Teton Marsh
2. Tell students they are going to use information from science class to help them understand and write about a book called One Day at Teton Marsh
3. Provide background information about the setting (habitat) of the book: Wyoming, Jackson Hole, the Tetons. Show maps of the United States and Wyoming
4. After using large-scaled maps, have students turn to the small map at the front of the book
5. Outline the structure of the book. Tell students Carrigar describes a 24 hour period in the lives of a number of different organisms that inhabit Teton Marsh. Each chapter is devoted to a different organism including the otter, cutthroat trout, osprey, mosquito, scud, mink, hare, American merganser, moose, Cleopine leech, leopard frog, physa snail, trumpeter swan and the beaver. Each chapter describes how each organism finds food, builds homes, raises young, and responds to changes in the environment. Carrigar shows the individual struggles of the organisms, and how they form a closely knit web in the marsh community.
6. Once students understand the setting (habitat) and the structure of the book, review the science terms (anthropomorphism, ecosystem, habitat, niche, invertebrate, vertebrate, crustacean) using the overhead projector and teacher prepared handouts
7. Have students select a partner
8. Randomly assign partners one of the chapters  
NOTE: Each chapter will be read by a minimum of two or three partner groups
9. Instruct partners to read their assigned chapter completing the guided reading worksheets and recording the organism's niche within the marsh, food, place in the food chain, relationship with other organisms in the same habitat, personality characteristics (anthropomorphism)
10. Once partners record the information, they should use the internet or other source of information (charts, encyclopedias, science books borrowed from the library

and science department) in order to compare and contrast Carrighar's work

11. Once students compare and contrast the information, they will write a brief report about their findings (rubric)
12. In small groups the students will share their reports with the other partners who have the same organism
13. Students will then give an oral presentation of their report to the entire class
14. Once all partner groups have presented their findings, the teacher will distribute information sheets (in the form of a packet) about each of the organisms in the book
15. Students will watch the video "One Day at Teton Marsh"
16. Students will complete a quiz

**HOMEWORK:** Work on reports and oral presentations as needed

**EVALUATION:**

- \*Teacher observation
- \*Self-evaluation
- \*Peer-evaluation
- \*Score on quiz
- \*Score on oral presentation (rubric)
- \*Score on written report (rubric)
- \*Completion of guided reading worksheet

## Pa. Academic Standards – Grade 8

### 1.1.8 Learning to Read Independently – Grade 8

- 1.1.8A Locate appropriate texts (literature, information, documents) for an assigned purpose before reading.
- 1.1.8B Identify and use common organizational structures and graphic features to comprehend information.
- 1.1.8C Use knowledge of root words as well as context clues and glossaries to understand specialized vocabulary in the content areas during reading. Use these words accurately in speaking and writing.
- 1.1.8D Identify basic facts and ideas in text using specific strategies (e.g. recall genre characteristics, set a purpose for reading, generate essential questions as aids to comprehension and clarify understanding through rereading and discussion)
- 1.1.8E Expand a reading vocabulary by identifying and correctly using idioms and words with literal and figurative meanings. Use a dictionary or related reference.
- 1.1.8F Understand the meaning of and apply key vocabulary across the various subject areas.
- 1.1.8G Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.
- Make, and support evidence, assertions about texts.
  - Compare and contrast texts using themes, settings, characters and ideas.
  - Make extensions to related ideas, topics or information.
  - Describe the context of a document.
  - Analyze the positions, arguments and evidence in public documents.
- 1.1.8H Demonstrate fluency and comprehension in reading.
- Read familiar materials aloud with accuracy
  - Self-correct mistakes
  - Use appropriate rhythm, flow, meter and pronunciation
  - Read a variety of genres and types of text
  - Recommend: 25 books/year

## 1.2.8 Reading Critically in All Content Areas – Grade 8

- 1.2.8A**      **Read and understand essential content of informational texts and documents in all academic areas.**
- Differentiate fact from opinion utilizing resources that go beyond traditional text (e.g. newspapers, magazines and periodicals) to electronic media.
  - Distinguish between essential and nonessential information across texts and going beyond texts to a variety of media; identify bias and propaganda where present.
  - Draw inferences based on a variety of information sources.
  - Evaluate text organization and content to determine the author's purpose and effectiveness according to the author's theses, accuracy and thoroughness.
- 1.2.8B**      **Use and understand a variety of media and evaluate the quality of material produced.**
- Compare and analyze how different media offer a unique perspective on the information presented.
  - Analyze the techniques of particular media messages and their effect on a target audience.
  - Use, design and develop a media project that expands understanding (e.g. authors and words from a particular historical period).
- 1.2.8 C**      **Produce work in at least one literary genre that follows the conventions of the genre.**

### 1.3.8 Reading, Analyzing and Interpreting Literature – Grade 8

- 1.3.8A Read and understand works of literature.
- 1.3.8 B Analyze the use of literary elements by an author including characterization, setting, plot, theme, point of view, tone and style.
- 1.3.8 C Analyze the effect of various literary devices.
- Sound techniques (e.g. rhyme, rhythm, meter, alliteration)
  - Figurative language (e.g. personification, simile, metaphor, hyperbole, allusion).
- 1.3.8 D Identify poetic forms (e.g. ballad, sonnet, couplet)
- 1.3.8 E Analyze drama to determine the reasons for a character's actions taking into account the situation and basic motivation of the character.
- 1.3.8 F Read and respond to nonfiction and fiction including poetry and drama.

## 1.4.8. Types of Writing – Grade 8

- 1.4.8A Write short stories, poems and plays.
- Apply varying organizational methods.
  - Use relevant illustrations.
  - Utilize dialogue.
  - Apply literary conflict.
  - Include literary elements (Standard 1.3.8.B.).
  - Use literary devices (Standard 1.3.8.C.).
- 1.4.8B Write multi-paragraph informational pieces (e.g., letters, descriptions, reports, instructions, essays, articles, interviews).
- Include cause and effect.
  - Develop a problem and solution when appropriate to the topic.
  - Use relevant graphics (e.g., maps, charts, graphs, tables, illustrations, photographs).
  - Use primary and secondary sources.
- 1.4.8C Write persuasive pieces.
- Include a clearly stated position or opinion.
  - Include convincing, elaborated and properly cited evidence.
  - Develop reader interest.
  - Anticipate and counter reader concerns and arguments.
- 1.4.8D Maintain a written record of activities, course work, experience, honors and interests.

### 1.5.3. Quality of Writing – Grade 8

- 1.5.8A** Write with a sharp, distinct focus.
- Identify topic, task and audience.
  - Establish a single point of view.
- 1.5.8B** Write using well-developed content appropriate for the topic.
- Gather, determine validity and reliability of and organize information.
  - Employ the most effective format for purpose and audience.
  - Write paragraphs that have details and information specific to the topic and relevant to the focus.
- 1.5.8C** Write with controlled and/or subtle organization.
- Sustain a logical order within sentences and between paragraphs using meaningful transitions.
  - Establish topic and purpose in the introduction.
  - Reiterate the topic and purpose in the conclusion.
- 1.5.8D** Write with an understanding of the stylistic aspects of composition.
- Use different types and lengths of sentences.
  - Use tone and voice through the use of precise language.
- 1.5.8E** Revise writing after rethinking logic of organization and rechecking central idea, content, paragraph development, level of detail, style, tone and word choice.
- 1.5.8F** Edit writing using the conventions of language.
- Spell common, frequently used words correctly.
  - Use capital letters correctly.
  - Punctuate correctly (periods, exclamation points, question marks, commas, quotation marks, apostrophes, colons, semicolons, parentheses).
  - Use nouns, pronouns, verbs, adjectives, adverbs, conjunctions, prepositions, and interjections properly.
  - Use complete sentences (simple, compound, complex, declarative, interrogative, exclamatory and imperative).
- 1.5.8G** Present and/or defend written work for publication when appropriate.



## 1.6.8. Speaking and Listening - Grade 8

1.6.8A

### **Listen to others.**

- Ask probing questions.
- Analyze information, ideas and opinions to determine relevancy.
- Take notes when needed.

1.6.8B

### **Listen to selections of literature** (fiction and/or nonfiction)

- Relate them to previous knowledge.
- Predict content/events.
- Summarize events and identify the significant points.
- Identify and define new words and concepts.
- Analyze the selections.

1.6.8C

### **Speak using skills appropriate to formal speech situations.**

- Use complete sentences.
- Pronounce words correctly.
- Adjust volume to purpose and audience.
- Adjust pace to convey meaning.
- Add stress (emphasis) and inflection to enhance meaning.

1.6.8D

### **Contribute to discussions.**

- Ask relevant, probing questions.
- Respond with relevant information, ideas or reasons in support of opinions expressed.
- Listen to and acknowledge the contributions of others.
- Adjust tone and involvement to encourage equitable participation.
- Clarify, illustrate or expand on a response when asked.
- Present support for opinions.
- Paraphrase and summarize, when prompted.

1.6.8E

### **Participate in small and large group discussions and presentations.**

- Initiate everyday conversation.
- Select a topic and present an oral reading.
- Conduct interviews as part of the research process.
- Organize and participate in informal debates.

1.6.8F

### **Use media for learning purposes.**

- Describe how the media provides information that is sometimes accurate, sometimes biased based on a point of view or by the opinion or beliefs of the presenter.
- Analyze the role of advertising in the media.
- Create a multimedia (e.g. film, music, computer-graphic) presentation for display or transmission.

## 1.8.8. Research – Grade 8

1.8.8A **Select and refine a topic for research.**

1.8.8B **Locate information using appropriate sources and strategies**

- Determine valid resources for researching the topic, including primary and secondary sources.
- Evaluate the importance and quality of the sources.
- Select essential sources (e.g. dictionary, encyclopedias, other reference materials, interviews, observations, computer databases).
- Use tables of contents, indices, key words, cross-reference and appendices.
- Use traditional and electronic search tools.

1.8.8C **Organize, summarize and present the main ideas from research.**

- Identify the steps necessary to carry out a research project.
- Take relevant notes from sources.
- Develop a thesis statement based on research.
- Give precise, formal credit for others' ideas, images or information using a standard method of documentation.
- Use formatting techniques to create an understandable presentation for a designated audience.