**You Always Leave a Footprint: A Journey through Yellowstone National Park**

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**Lesson Plan Outline:**

**1. Lesson Description**: The lesson will start with students filling out a KWL chart. Next a role-playing scenario will be given to them. Once students have chosen the role they want to play, they will complete the activities. The activities have been designed so students will have some choice in what they want to study. The lesson will give them knowledge about a topic therefore allowing the teacher opportunity to challenge them. The lesson is set up for a differentiated classroom. Students will be given standard-based activities in a tic-tac-toe format and will also be assessed according to what activities they choose. Once the research as been done through activities, the final discussion will be on role-playing the issues relating to Yellowstone. This activity is called “Now What.” For example questions will be posed to students about bison leaving the park or bio prospecting in geothermal areas in Yellowstone. They will answer the questions as a role- playing activity.

**2. Introduction:**

The accompanying PowerPoint and script serves as an introduction to stimulate student’s curiosity about a unique place known as Yellowstone National Park. They will fill in their KWL chart the teacher is introducing the lesson. The pictures will hopefully hook students to want to research different topics concerning Yellowstone National Park. These topics will include Native Americans, animals that live in Yellowstone, and geological features. The PowerPoint and KWL chart will be used as a Pre-assessment to determine the student’s current level of readiness or interest in order to plan options for appropriate instruction. Once the PowerPoint has been shown and the pre-assessment data from the chart has been look at, students will be given the assignment.

The lesson will start with a role-playing scenario.

**Scenario** – You have been asked to be part of a committee concerning Yellowstone National Park. The meeting has been called because several individuals in the government think the park is too expensive to run. They are thinking of closing the park to visitors year round. Choose one of the individuals you would like to role-play. Once you have chosen your individual tell your teacher. Your choice will determine which box you will start on for your differentiated assignments. As you research, keep in mind your individual and how they would view Yellowstone National Park.

Individuals to Role-Play

1. Park Ranger – starting box 4 or 6

2. Native American – starting box 1

3. Scientist or Medical Research Company– starting box 6

4. Animal Rights Group - starting box 4

5. Hotel Owner around the park – starting boxes 5 or 6

6. Yearly Visitor to the park – starting boxes 5 or 9

According to Carolyn Coil, author of Standards-Based Activities and Assessments for the Differentiated Classroom, differentiation provides students with several different options for learning. It includes: 1. Different ways to learn the information, 2. Different amounts of time to complete work, 3. Different approaches to learning because of cultural background or language acquisition, 4. Different levels of learning, 5. Different assignments for students in the same classroom, and

6. Different means to assess what has been learned. The need for differentiation in the classroom is obvious. The differentiation will allow the teacher to accommodate children and meet each of their diverse needs. It will give the teacher the opportunity to challenge both high ability classes and regular classes who have struggling students in them.

Included in the following pages are the differential lessons used as well as all background PowerPoints and notes that will be introduced to students. This lesson will open up discussion about the economic issues associated with Yellowstone National Park and allow the opportunity for students once basic knowledge is gained to be able to role-play different points of views.

**3. Concepts:**

History

Economic

Geography

Government

Technology

Tic-Tac-Toe assignments will allow students to work on the following:

* comprehension
* knowledge
* evaluation
* visual/spatial
* naturalist
* verbal/linguistic
* technological
* bodily/kinesthetic
* interpersonal
* intrapersonal

4. **Content Standards: Grade 8**

**United States History 8.1**

**8.1.28**

Chronological Thinking, Historical Comprehension, Analysis and Interpretation, Research, and Issues-Analysis and Decision-Making: Recognize historical perspective and evaluate alternative courses of action by describing the historical context in which events unfolded and by avoiding evaluation of the past solely in terms of present-day norms. (Core Standard)

**8.1.29**

Chronological Thinking, Historical Comprehension, Analysis and Interpretation, Research, and Issues-Analysis and Decision-Making: Differentiate between facts and historical interpretations, recognizing that the historian's narrative reflects his or her judgment about the significance of particular facts.

**8.1.31**

Chronological Thinking, Historical Comprehension, Analysis and Interpretation, Research, and Issues-Analysis and Decision-Making: Obtain historical data from a variety of sources to compare and contrast examples of art, music and literature during the nineteenth century and explain how these reflect American culture during this time period. (Core Standard)

**Civics and Government 8.2**

**8.2.2**

Foundations of Government: Identify and explain the relationship between rights and responsibilities of citizenship in the United States.

**8.2.7**

Roles of Citizens: Explain the importance in a democratic republic of responsible participation by citizens in voluntary civil associations/non-governmental organizations that comprise civil society.

**8.2.9**

Roles of Citizens: Explain how citizens can monitor and influence the development and implementation of public policies at local, state and national levels of government.

**8.2.10**

Roles of Citizens: Research and defend positions on issues in which fundamental values and principles related to the United States Constitution are in conflict, using a variety of information resources.

**Geography 8.3**

**8.3.1**

The World in Spatial Terms: Read maps to interpret symbols and determine the landforms and human features that represent physical and cultural characteristics of areas in the United States.

**8.3.3**

Physical Systems: Identify and locate the major climate regions in the United States and describe the characteristics of these regions.

**8.3.4**

Physical Systems: Name and describe processes that build up the land and processes that erode it and identify places these occur.

**8.3.5**

Physical Systems: Describe the importance of the major mountain ranges and the major river systems in the development of the United States.

**8.3.7**

Human Systems: Using maps identify changes influenced by growth, economic development and human migration in the eighteenth and nineteenth centuries.

**8.3.8**

Human Systems: Gather information on the ways people changed the physical environment of the United States in the nineteenth century, using primary and secondary sources including digitized photo collections and historic maps.

**8.3.9**

Human Systems: Analyze human and physical factors that have influenced migration and settlement patterns and relate them to the economic development of the United States.

**8.3.10**

Environment and Society: Create maps, graphs and charts showing the distribution of natural resources - such as forests, water sources and wildlife - in the United States at the beginning of the nineteenth century and give examples of how people exploited these resources as the country became more industrialized and people moved westward.

**8.3.11**

Environment and Society: Identify ways people modified the physical environment as the United States developed and describe the impacts that resulted.

**Economics 8.4**

**8.4.4**

Explain the basic economic functions of the government in the economy of the United States.

Example: The government provides a legal framework, promotes competition, provides public goods and services, protects private property, controls the effects of helpful and harmful spillovers, and regulates interstate commerce.

**8.4.5**

Analyze contributions of entrepreneurs and inventors in the development of the United States economy.

**5. Objectives**

Students will understand key terms in geography

Students will be able to calculate distance

Students will be able to analyze information obtained through the internet

Students will gain experience in learning new technology tools

Students will gain experience in discussing different points of views

**6. Time Required**: This is approximate and can be added or deleted as needed.

**Day 1** – Introduction with PowerPoint Presentation on Yellowstone National Park and KWL chart filled out

**Day 2** – PowerPoint Presentation of key vocabulary terms on Geography

**Day 3** – PowerPoint Presentation of key vocabulary terms on Geography

**Day 4** – Project assignment introduced with students choosing assignments and reviewing rubric

**Day 5 – Day 8 –** Individual work on Tic-Tac-Toe assignments/Teacher help as needed

**Day 9** – What Now assignment - Groups are formed depending on students choice of role-playing individual. If a student started in the box on Native Americans, they will work with other students who completed animals, and geology. They will discuss with each other what they have learned through role-playing an individual associated with the scenario they were given. They will take a position and come up with solutions/compromises that would make everyone happy.

**Day 10** – Teacher and student wrap-up discussion on issues concerning Yellowstone National Park and scenario.

**7. Materials:**

1. Copy of KWL chart

2. Copy of scenario

3. Copy of Tic-Tac-Toe assignment for each student

4. Copy of rubric for each student

5. Copy of notes on geography

6. Blank map of the United States – www.50states.com

7. Computer with internet access

8. Suggested list of Internet sites suitable for research

* [www.Maps.google.com](http://www.Maps.google.com)
* [www.nps.gov/yell/](http://www.nps.gov/yell/)
* [www.yellowstonenationalpark.com/](http://www.yellowstonenationalpark.com/)
* [www.YellowstoneBearWorld.com](http://www.YellowstoneBearWorld.com)

9. Template for Jeopardy game, postcards, brochure, glogster

* <http://jeopardylabs.com/>
* <http://www.mybrochuremaker.com/>
* <http://www.postcard-template.com/postcardtemplate1.html>
* <http://www.edu.glogster.com>

10. Paper, crayons, colored pencils, rulers

11. Questions for discussion

**KWL Chart**

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_**

Before you begin your research, fill in the first two columns, “What I know” and “What I want to Know.” Fill in the last column, “What I learned,” after completing your research.

Topic: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Box # \_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| What I know | What I want to know | What I learned |
|  |  |  |

**Scenario** –

You have been asked to be part of a committee concerning Yellowstone National Park. The meeting has been called because several individuals in the government think the park is too expensive to run. They are thinking of closing the park to visitors year round both summer and winter. Choose one of the individuals you would like to role-play. Once you have chosen your individual tell your teacher. Your choice will determine which box you will start on for your differentiated assignments. As you research, keep in mind your individual and how they would view Yellowstone National Park.

Individuals to Role-Play

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**Yellowstone National Park**

**Tic-Tac-Toe for Student Choice Activities**

|  |  |  |
| --- | --- | --- |
| 1. Before explorers came to Yellowstone, Native Americans used Yellowstone as their home, hunting grounds, or transportation routes. Research which tribes used Yellowstone and describe at least three things that was unique to each tribe’s culture. Then pretend you are an explorer and write a letter to your friends at home telling them about one tribe you met. | 2. On a map of the United States, use the scale to measure the distances between any four capital cities and Yellowstone National Park. Label them on the map and make a chart to record your information. Then use the map and find four cities approximately the same distance from where you live. Record this information on your chart. | 3. Create Jeopardy questions about the history of Yellowstone National Park. Include five categories of questions with five questions in each category. Write your questions and answers on the template provided to you. |
| 4. Research what animals make their home in Yellowstone National Park. Choose five and make postcards showing each of the animals in their natural habitat. Write a message on the back of each postcard telling about public issues this animal faces to survive. | 5. Plan a trip to five different regions of Yellowstone National Park. Mark each of the areas on a map and highlight your route. Calculate the distances between each area. Include rivers, streams, mountains etc. | 6. Create a brochure advertising Yellowstone National Park. Use each folded section of the inside of the brochure for a separate area with the outside featuring the region as a whole. |
| 7. Research the geological features of Yellowstone National Park. Design a study guide for students to use when studying the vocabulary associated with each feature. Draw of find a picture of 5 of the terms. Find out what research is being done in the park that concerns geological features and write a brief summary. | 8. Find at least five songs that relate to Yellowstone National Park. Make a copy of the words and music. Using one of the songs, add one more verse. Play the song for the class and sing your verse. | 9. Create a poster advertising reasons to visit Yellowstone National Park using the website  [www.edu.glogster.com](http://www.edu.glogster.com) |

**Yellowstone National Park**

**Tic-Tac-Toe Assessment**

|  |  |  |
| --- | --- | --- |
| **1. Letter**  o Has correct grammar, punctuation and spelling  o Accurate information  o Followed directions  *Suggested extension: Make a map and accurately label showing where each tribe lives.*  Possible Points = \_\_\_\_\_\_\_\_\_\_ | **2. Map**  o Follows Chart criteria card  o Accurate measurements  o Accurate information  *Suggested extension: Do this activity again using 5 different locations.*  Possible Points = \_\_\_\_\_\_\_\_\_\_ | 3. **Jeopardy Questions**  o Has 25 questions in 5 categories  o Accurate information  o Followed directions  *Suggested extension: Add 20 more questions to your game or organize a Jeopardy game for three classmates using your questions.*  Possible Points = \_\_\_\_\_\_\_\_ |
| 4. **Picture Postcards**  o Follows Picture Postcard criteria card  o Message matches picture  o Correct information  *Suggested extension: Find and copy a recipe that uses one of your animals as a food source.*  Possible Points = \_\_\_\_\_\_\_\_\_ | 5. **Map**  o Follows Chart criteria card  o Accurate measurements  o Accurate information  *Suggested extension: Write a story about your trip including what you did and what you saw.*  Possible Points = \_\_\_\_\_\_\_\_\_\_ | 6. **Brochure**  o Follows Brochure criteria card  o Highlights important tourist attractions and includes them on the map  o Accurate information using persuasive language  *Suggested extension: Design a T-Shirt a tourist would want to buy while visiting Yellowstone.*  Possible Points = \_\_\_\_\_\_\_\_\_\_ |
| 7. **Study Guide/Visuals**  o Follows criteria card  o Accurate information  o Drawings are neat  *Suggested extension: Write a song or rap using the vocabulary terms.*  Possible Points = \_\_\_\_\_\_\_\_\_\_ | **8. Song Lyrics and Music**  o Follows song criteria card  o Has 5 or more songs that relate to Yellowstone and has new verse  o Presents song to class  *Suggested extension: Illustrate the song or make a PowerPoint presentation with pictures.*  Possible Points = \_\_\_\_\_\_\_\_\_\_ | **9. Poster**  o Follows criteria card  o Reasons are clearly stated, logical, and backed up by facts  o Poster has correct grammar, punctuation and spelling  *Suggested extension: Pretend your poster persuaded you to travel to Yellowstone. Write a journal entry describing your trip.*  Possible Points = \_\_\_\_\_\_\_\_\_\_ |

**5 Themes of Geography Notes**

|  |  |
| --- | --- |
| ***Theme***  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  ***Location*** | ***Definition***  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *Position of a certain place, such as a mountain or a city, on the earth’s surface* |
| Place | Physical or human characteristics that make a certain area of the earth’s surface different from all other areas |
| Human/Environment Interaction | How people use and influence their natural surroundings  How people’s natural surroundings influence them |
| Movement | Contact that people in one area have with people in other areas through activities such as trade, migration and travel, or communication |
| Region | An area where common physical or human characteristics are shared |

**8. Procedure** – Please refer to #6 Time required for how I think the lesson should be taught.

**9. Activities, 10. Assessment 11 – Extensions:**  Can all be found on the Tic-Tac-Toe assignment sheet.

**12. Interdisciplinary Features**:

**English/Language Arts**

**READING: Word Recognition, Fluency, and Vocabulary Development**

**8.1**

Students use their knowledge of word parts and word relationships, as well as context (the meaning of the text around a word), to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

**READING: Comprehension and Analysis of Nonfiction and Informational Text**

**8.2**

Students read and understand grade-level-appropriate material. The selections in the www.doe.in.gov/standards/readinglist.html illustrate the quality and complexity of the materials to be read by students. At Grade 8, in addition to regular classroom reading, students read a variety of nonfiction, such as biographies, autobiographies, books in many different subject areas, magazines, newspapers, reference and technical materials, and online information.

**WRITING: English Language Conventions**

**8.6**

Students write using Standard English conventions appropriate to this grade level.

**Mathematics**

**Problem Solving**

8**.7**

Students make decisions about how to approach problems and communicate their ideas.

**Science**

**Historical Perspectives**

**8.6**

Students gain understanding of how the scientific enterprise operates through examples of historical events. Through the study of these events, they understand that new ideas are limited by the context in which they are conceived, that the ideas are often rejected by the scientific establishment, that the ideas sometimes spring from unexpected findings, and that they grow or transform slowly through the contributions of many different investigators.

**Common Themes**

**8.7**

Students analyze the parts and interactions of systems to understand internal and external relationships. They investigate rates of change, cyclic changes, and changes that counterbalance one another. They use mental and physical models to reflect upon and interpret the limitations of such models.

**Works Cited**

*Blackboard Learn*. Web. 5 July 2010. <http://blackboard.instate.edu/>.

Coil, Carolyn. *Standards-Based Activities and Assessments for the Differentiated*

*Classroom.* Pieces of Learning, 2004. Print.

Coil, Carolyn. *Successful Teaching in the Differentiated Classroom*. [Marion, IL]:

Pieces of Learning, 2007. Print.

*Free Post Card Templates*. Web. 15 July 2010. <http://www.postcard-template.com/>.

“A Free United States Map.” 50states.com-States and Capitals. Web. 10 July 2010.

<http://www.50states.com/us.htm>.

*Glogster EDU – 21st Century Multimedia Tool for Educators, Teachers and Students|*

*Text, Images, Music and Video*. Web. 16 July 2010. <http://edu.glogster.com/>.

*JeopardyLabs – Online Jeopardy Template.* Web. 10 July 2010.

<http://jeopardylabs.com/>.

My Brochure Maker. Web. 13 July 2010. <http://www.mybrochuremaker.com/>.

*Textbooks, Programs & Teacher Resources by Pearson*. Web. 17 Aug. 2009.

<http://www.pearsonschool.com/>.

*Yellowstone Bear World\ Yellowstone Animals*. Web. 20 July 2010.

<http://www.yellowstonebearworld.com/>.

“Yellowstone National park (U.S. National park Service).” U*.S. National Park Service – Experience Your America*. Web. 11 July 2010. http://www.nps.gov/yell/>.

“Yellowstone National Park.” *Wikipedia, the Free Encyclopedia*. Web. 11 July 2010.

<http://en.wikipedia.org/wiki/Yellowstone\_National\_Park>.