

# Lesson Plans: SS 06 Geo LPQ4 019 African Eco-Challenge

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Grade Level : Grade 6

Subject : Social Studies - Middle

**Standards/Assessed Benchmarks:** Florida STATE FL Social Studies Standard (2008)  
Florida Sunshine State Standards  
Grade 6

Geography

- 1: Understand how to use maps and other geographic representations, tools and technology to report information.
- 2: Understand physical and cultural characteristics of places.
- 3: Understand the relationships between the Earth's ecosystems and the populations that dwell within them.
- 4: Understand the characteristics, distribution, and migration of human populations.
- 5: Understand how human actions can impact the environment.
- 6: Understand how to apply geography to interpret the past and present and plan for the future.

**Description/Abstract of Lesson:** Students will understand issues confronting continental Africa including desertification and the scarcity of clean water. Students will examine these issues within the context of Africa's development and the environmental, economic, and personal impact it has upon its citizens.

**Essential Question-Scope & Sequence:** **What are the major issues standing in the way of developing Sub-Saharan Africa today?**

**Technology Connections and Teacher Materials:** World warned on water refugees (3/22/01)  
<http://news.bbc.co.uk/2/hi/science/nature/1234244.stm>  
Water Arithmetic "Doesn't Add Up" (3/13/00)  
<http://news.bbc.co.uk/2/hi/science/nature/671800.stm>  
Food at Risk as Water Drips Away (7/17/00)  
<http://news.bbc.co.uk/2/hi/science/nature/396270.stm>  
World Water Shortage Threatens Harvests (2/7/02)  
<http://news.bbc.co.uk/2/hi/africa/2027079.stm>  
Africa's Potential Water Wars (03/22/05)  
<http://news.bbc.co.uk/2/hi/science/nature/4370847.stm>

**Technology Connections and Student Materials:** World map (like the one available at [http://go.hrw.com/atlas/norm\\_h.htm/world.htm](http://go.hrw.com/atlas/norm_h.htm/world.htm))

Duration : 10 Days

Vocabulary: Conservation, Desertification

- Steps to Deliver Initial Instruction:**
- Activate student's prior knowledge about the general geography of Sub-Saharan Africa. On a physical map, point out with students
    - the major physical features of Africa
    - general elevation features
    - location and impact of major rivers location and impact of major deserts (Namib, Sahara)
  - Define desertification as the major environmental issue facing Africa today and describe the impact.
    - Identify conservation issues facing the United States to be able to compare and contrast same issue facing Sub-Saharan Africa.
  - To create student interest in the geography of the Sahara region of Africa, distribute a copy of the "Give One Get One" graphic organizer to each student.
    - Have students label the top three boxes with the main topics listed below in each box:
      - Top left corner box: Location, climate, countries and weather
      - Top center box: Desertification and water resources
      - Top right corner box: People and Animals

- Explain to the class that they will have 5 minutes to move about the classroom and talk with other students about the information they know related to each topic. It is each student's job to record what s/he learns about a topic from classmates. Because the name of the game is "Give One Get One," each time a student asks a classmate for information about a set topic, s/he should also be willing to supply information related to one of the topics on the list. Each time a student interacts with a classmate and learns information about one of the topics, s/he should record the information in the boxes directly underneath each topic. Once a student has filled in all of the squares on the "Give One Get One" handout, the student should be seated. The activity should be stopped after 5 minutes.
- Once all students are seated, take time to discuss each of the topics that were listed. When discussing location, climate, countries, and weather, use a world map ([http://go.hrw.com/atlas/norm\\_hm/world.htm](http://go.hrw.com/atlas/norm_hm/world.htm)) to point out specific information including:
  - Location of Africa in relation to the United States, paying specific attention to longitude and latitude and comparing the location of Sub-Saharan Africa to points in North and South America that students might be more familiar with.
  - Climate: based on the map and what students know about our climate, what assumptions can they make about the climate in the Sub-Saharan Africa?
  - Countries: list the names of specific countries located in the Sub-Saharan Africa.
  - Weather: based on what they know about deserts and the location of the Sub-Saharan Africa, what assumptions did they make about the weather?

**Guided Practice with Feedback:** Students will locate and label on an outline map all countries of Africa. Map should also include identified major rivers and bodies of water. Students will then use crayons or colored pencils to outline the 5 rainfall regions of Africa (from the text) onto their own outline map.

- Students will locate and label on an outline map all countries of Africa. Map should also include identified major rivers and bodies of water. Students will then use crayons or colored pencils to outline the 5 rainfall regions of Africa (from the text) onto their own outline map.
- Students then compare their map with a population density maps for each 10 year period 1960, 1970, 1980, 1990, 2000, 2010, 2020. Students could work individually or in small cooperative learning groups to analyze the relationship between population density and desertification. Each group or student should identify possible effects of increased population density on desertification.

**Differentiated Instruction/Small Groups:**

- **Mini lesson #1** Have students brainstorm about the conservation issues facing their immediate society. Have them think about recent news stories related to water, power, agriculture and forestry. Write their ideas on a board.
- Divide the class into small groups, allowing students to select which topic group in which they will participate. Groups should be no larger than 3 students each. Use the following conservation categories:
  - Group One: Electricity
  - Group Two: Water
  - Group Three: Oil (petroleum)
  - Group Four: Forests
- Distribute Factors surrounding conservation of resources and non-conservation charts to each group. Have students consider the following questions in their groups:
  - What are the individual, social, and environmental factors surrounding

- the conservation of these resources?
      - What are the short-term and long-term consequences to non-conservancy of these resources?
    - Give groups ample time to think about the questions posed and to form responses to these questions. (Please note: additional reference material might be needed to assist students with this process.)
  - Share and record responses to questions on the board. Collect charts for assessment.
- **Mini lesson #2** Divide the class into pairs. Have each group conduct an Internet search on "desertification". Each group should collect at least five important facts about this process.
  - After the students have collected facts, each pair should write out an inclusive and detailed definition of the term "desertification". Each pair should share with the class, and then the class develop a unified definition.
  - Collect the 5 facts on desertification for assessment.
  
- **Mini lesson #3** Begin this activity by sharing the photo essay about the environment located on the PBS AFRICA Web site. <http://www.pbs.org/africa/photoscope> (Click on the "Environment" menu option) (If your classroom does not have appropriate technology, either copy pictures and distribute to groups or schedule computer lab for your class).
  - Ask students to use describe what they see in each photo and how these images relate to what has been discussed in days 1-3 lessons.
  - Go to the BBC News link to read the article, Billions Without Clean Water at <http://news.bbc.co.uk/1/hi/world/676064.stm> (If your classroom does not have appropriate technology, a copy of the article has been included in the file attachments).
    - As a class, discuss and summarize the major issues raised in this article.
  - Divide the class into small research groups and ask them to read one of the following articles: (If your classroom does not have appropriate technology, either copy all articles and distribute to groups or schedule computer lab for your class).
    - \*World warned on water refugees (3/22/01) <http://news.bbc.co.uk/1/hi/sci/tech/1234244.stm>
    - \*Water Arithmetic "Doesn't Add Up" (3/13/00) <http://news.bbc.co.uk/1/hi/sci/tech/671800.stm>
    - \*A Fight to the Last Drop (1/1/00) <http://news.bbc.co.uk/1/hi/sci/tech/245363.stm>
    - \*Food at Risk as Water Drips Away (7/17/00) <http://news.bbc.co.uk/1/hi/sci/tech/396270.stm>
    - \*World Water Shortage Threatens Harvests (2/7/99) <http://news.bbc.co.uk/1/hi/world/274099.stm>
    - \*Africa's Potential Water Wars (11/15/99) <http://news.bbc.co.uk/1/hi/world/africa/454926.stm>
  - Each group should create a poster which highlights the pertinent issues in each article. They should then present their posters and summarize the articles for the entire class.
  - Collect poster for assessment.
- **Mini lesson #4** Have students go to the following sites for these activities:
  - PBS AFRICA - Explore the Regions [http://www.pbs.org/africa/explore/sahel/sahel\\_overview\\_lo.html](http://www.pbs.org/africa/explore/sahel/sahel_overview_lo.html)

African Conservation <https://www.africanconservation.com/>

- Distribute a relief map of Africa available at <https://africanconservation.org/wildlife-news/africas-protected-areas-severely-affected-conflict-remain-promising-conservation-rehabilitation-efforts/>
- Divide students into small groups to investigate Africa's Sahel countries by clicking on the Choose a Country or the Country Profiles link. Have each group report about the particular geographic and climatic characteristics that distinguish each country, particularly as they relate to desertification and water scarcity.
- Assign groups to each of the countries below:
  - Senegal
  - Niger
  - Chad
  - Sudan
  - Burkina Faso
- Distribute Content-Feature chart to each group to complete on their assigned country.
- Have each group present to the rest of the class their findings using their content-feature chart for assistance.
- Have students in the audience record on paper the similarities and differences among these countries. Following the presentations, ask audience members to summarize the similarities and differences.
- Collect content-feature map for assessment.
- **Mini lesson #5** As a culminating activity, have the entire class create a script for an imaginary newscast detailing the problem of desertification and water scarcity in Africa.
  - Break students into groups to work on different segments of the news story in which they address several facets of the problem from the perspective of various news departments. These departments or bureaus should include the following:
    - The Science Correspondent: This group should focus on the geographic, meteorological, and other human factors producing desertification. Graphics illustrating the problem should be included.
    - The Community Correspondent: This group should focus on the personal or human costs of desertification and water scarcity. Further Internet research may be helpful.
    - The Economic Correspondent: This group should focus on the impacts of desertification upon the local and national economies of Africa as well as the global economy.
    - The Political Correspondent: This group should focus on the various political tensions created and exacerbated by these problems.
    - The Production Group: This group is responsible for integrating all the parts of the script, and directing and videotaping, or recording of the final production.
    - The Set Designers: This group is responsible for designing the set, and obtaining appropriate staging props.
    - The Expert Panel: This group should be convened at the end of the newscast. Their task is to suggest possible solutions to these problems.
  - Allow time for groups to work on the task for each assigned departments.
  - Present report as a whole class.
  - Collect each group's broadcast for assessment.

**ESE/ESOL Accommodations & Strategies:** Cooperative learning groups, with varies ability grouping. Visual aids. Teacher monitoring and feedback.

**ESE/ESOL Strategies:**

**Lesson Closure/Review:**

- **EXTENSION:** Africa through Art and Literature (The purpose of this activity is for students to explore different elements of Africa through art and literature).
  - Have students freewrite a response in their journals (or a separate piece of paper) about the following questions:
    - Why is the land and nature a common subject of poetry and art?

- What do these and related forms of artistic expression tell us about ourselves and our relationship to the earth and one another?
- Divide the class into pairs and share responses. Use these responses as the basis for a whole class discussion.
  
- Discuss the following with your students: War is often the result of acute scarcity of the most fundamental and essential commodities, such as food and water. Ask the students to think of examples throughout history when this has occurred.
- Send students to the PBS AFRICA site to view a photo essay about war in Africa. <http://www.pbs.org/africa/photoscope> Click on the "Conflict" menu item in this section. View the photo collection of Sergio Joao Francisco da Silva, a Mozambican who, from 1987 to 1994, worked for Norwegian Save the Children as a photographer documenting the crisis of the war in central Mozambique. Make sure that students click on the thumbnails to view the full image (the gallery presents cropped snap-shots of full images).
  - Ask the students to write a poem focusing upon the concrete images revealed through da Silva's photography.
- **Activism & The Media** (In this activity, students should critically examine how the media portrays issues regarding Africa, and how people can effect social change through activism).
  - Lead a class discussion focusing on the process of activism and social change. Some possible questions to consider include:
    - What provokes activism? What sustains it?
    - How does activism often relate to economics and the distribution of resources?
    - Why are these environmental issues confronting Africa important to us?
  - 2. Have students investigate the following Africa-specific Web sites, and focus particularly upon environmental issues relating to desertification and water: <http://www.pbs.org/africa/photoscope/> Click on the "Environment" menu option.
  - In small groups, research ways in which people and organizations can make a positive difference regarding these global matters. Have each group share its ideas with the whole class.
  - Have students discuss the subject of the news media itself. Some questions to consider include:
    - Who decides what is newsworthy?
    - How does this decision influence our attitudes about the world and its people?
    - How does this decision influence foreign policies?
  - Ask the students to write a letter to a fifth-grade student in which they describe an example of the kind of specific social action a person can take that can potentially make a difference in the world. Have the students focus their appeal around the kinds of environmental activism that is desperately needed in Africa. Explain that students need to keep their writing clear and simple, since it is to be read by fifth graders. Follow this up by a short discussion of why students are writing to fifth graders as an exercise for keeping their writing short and clear, since this style is the basis of news writing.

#### **Additional Extension Activities:**

- Choose an organization such as UNICEF or Doctors Without Borders and work as a class to raise awareness about the shortage of clean, drinkable water and food in the countries of the Sub-Saharan Africa.
- Conduct a fundraising campaign to help provide starving people in Africa with the food, water, and livestock they need to survive and thrive in the desert area where they live.

- Involve students in a letter writing campaign to raise public awareness about the plight of Africans living in Sub-Saharan Africa and what can/should be done to address the need to stop the famine and provide an adequate supply of drinkable water.
- Through a reputable online classroom link or an organization such as UNICEF or the United Nations, explore the idea of having students write to real students from the Sub-Saharan Africa to learn more about their specific lifestyles and challenges. Share these letter/e-mails with the class or collect the data and place it in a display to share with others.

**Assessment with Clear & Compelling Product Standards:** Collect the following worksheets to evaluate completion and accuracy: 1). Get One-Give One 2). Sub-Saharan Africa Map 3). Conservation/Non-Conservation Chart 4). 5 facts on desertification 5). Poster summaries 6). Content-Feature Chart 7). Broadcast

**Additional FOCUS Design Qualities :** Affiliation, Affirmation of Performance, Clear and Compelling Standards, Novelty and Variety, Organization of Knowledge, Protection from Adverse Consequences for Initial Failures

**Creator :** Middle SS Content Team

**File Attachments:** africa blank political map.pdf

africa political map teacher resource.pdf

BBC News Billions Without Clean Water.doc

Consequences of non-conservation of Resources Chart.doc

Content-Feature Chart.doc

Desertification Report by USGS.doc

Effects of Conservation of Resources Chart.doc

Get One - Give One graphic organizer.doc

National Geographic Guide to Contemporary Africa.pdf

RELIEF MAP OF AFRICA.doc

Sub-Saharan Africa Mapping Activity.doc

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