

Desertification, Fulani Herders, and Ecosystems in Nigeria

Dr. Kay Weller – UNI

Grade Level (Req.): 7th-12th grade	Content Area (Req.): World Geography, Physical Geography, English/Reading	Unit (Opt.):
Connections to Other Disciplines (Opt.): <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>		
Time Frame (Req.): 2-4 days	Goal (Req.): To learn about the characteristics and spatial distributions of desertification in Africa and specifically Nigeria.	
	Objective (Req.): Students will compare and contrast maps of Africa showing climates, vegetation, and precipitation and analyze them as they relate to Nigeria in a 1 page essay. Students will search the Internet (or library) for information regarding desertification locating the region of Africa where desertification is an environmental issue on a blank map. Students will define desertification in one paragraph, and explain what two human processes cause it (overgrazing and overplowing/mismanagement). Students will research the Internet or library about Fulani herders in Nigeria and how they help prevent desertification through migration from Northern Nigeria to Southern Nigeria and back. Students will write a fiction story about a young Fulani herder (age 10-13) and his adventures as he grazes his herd.	
Materials Needed (Req.): <ul style="list-style-type: none"> <li>• Atlases showing vegetation, precipitation, and climates of Africa</li> <li>• Blank maps of Africa</li> <li>• Searching Netscape there are over 2000 web pages when searching “desertification Nigeria”. You may choose some you particularly like.</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	New Vocabulary (Opt.): <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	
Anticipatory Set/Introduction [Inquiry Question is required] (Req.): What are the characteristics and spatial distributions of ecosystems in Nigeria?		
Instructional Sequence/Procedure (Req.): <ol style="list-style-type: none"> <li>1. Pass out maps (atlases) of Africa showing climates, vegetation, and precipitation.</li> <li>2. Have students write a one-page essay analyzing the relationship between the phenomena on the three maps.</li> <li>3. Students should search the Internet or in the library for information about desertification. They should then identify where in Africa it is an environmental issue and generate a map locating the</li> </ol>		

area now under threat from desertification (Sahel).

4. Students should define the word, and explain in a one-page essay what two human processes can cause it (overgrazing and overplowing/mismanagement).
5. Have students research and learn about Fulani herders and how they migrate from Northern Nigeria to Southern Nigeria and back so that they do not overgraze the region.
6. Students should then write a fiction story featuring a young Fulani herder aged 10-13 and his adventures while herding cattle. Story should include the following: Title, Male herder, Information about the physical and human characteristics of Nigeria as he proceeded on his herding migration, Explain how seasonal movement of livestock (transhumance) can help prevent desertification in Nigeria, Illustrations and maps showing where the herder migrated.
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Formative Evaluation (Req.): Class participation

Assessment (Req.): Essays, map, and fiction story

Iowa Core Curriculum Standards Used (Req.):

- Geography, grade 9-12: Understand the use of geographic tools to locate and analyze information about people, places, and environments.
- Geography, grade 9-12: Understand how physical and human processes shape the Earth's surface and major ecosystems.
- Technology Literacy, grade 9-12: Apply digital tools to gather, evaluate, and use information.
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Common Core Curriculum Standards Used (Opt.):

- Writing, grade 6-12: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
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NGS Standards Used (Req.):

- How to analyze the spatial organization of people, places, and environments on Earth's surface
- The characteristics and spatial distributions of desertification in Africa and specifically Nigeria
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Five Themes of Geography Used (Req.):

- Location
- Place
- Human-Environmental Interaction
- Movement
- Region

School District Standards and Benchmarks (Opt.):

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21<sup>st</sup> Century Universal Constructs (Opt.): Critical Thinking, Creativity

Other Disciplinary Standards (Opt.):

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Other Essential Information (Opt.):

Other Resources (Opt.):

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