

## Comparing and Contrasting Water in the United States and Nigeria

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Grade Level (Req.): 5th-7th grade	Content Area (Req.): World Geography, Physical Geography, English	Unit (Opt.):
Connections to Other Disciplines (Opt.): <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>		
Time Frame (Req.): 1 class period	Goal (Req.): To learn about the natural resources available in different parts of the world.	
	Objective (Req.): Students will describe the various sources and uses of water. Students will compare the similarities and differences of water acquisition in Nigeria and the US. Students will discuss problems associated with water quality.	
Materials Needed (Req.): <ul style="list-style-type: none"> <li>• Nigerian resources</li> <li>• Background information on Nigeria</li> <li>• Background information on water systems in Nigeria</li> <li>• “WOW! The Wonders of Wetlands”, by Alan S. Kesseheim and Britt Eckhardt Slattery. Published by Environmental Concern, Inc. 1995.</li> <li>• “Earth Matters”, by Pamela Wasserman and Andrea Doyle. Published by Zero Population Growth, Inc. 1991.</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.): Although water covers three-quarters of the Earth, only a small fraction is available for human consumption. Why is the conservation and acquisition of water so important? Discussion: 1) Have students brainstorm ways in which we use water. (Examples include domestic, agriculture, industrial/commercial). 2) Discuss where our water comes from. (Examples include the transport system, as well as tracing tap water to its source). 3) Investigate diseases, their causes and effects, associated with using untreated water.		
Instructional Sequence/Procedure (Req.): <ol style="list-style-type: none"> <li>1. Have students keep track in a 24-hour period, how often they use water and what for. Have students chart or graph their results.</li> <li>2. Take a field trip to your local water treatment plant. List the steps in processing water for human consumption.</li> <li>3. Show students ways in which Nigerians get their water (water tanks, wells, rivers, streams, bottled water). Simulations might include bucket baths, getting water from a well, head-carrying, boiling water.</li> <li>4. Discuss the rainy season in Nigeria, and talk about your own local climate and annual rainfall.</li> </ol>		

Graph the amount of precipitation between the North and the South – compare with annual amounts in your own region.

5. Give students a list of vocabulary terms associated with diseases contracted from contaminated water in Nigeria. Discuss the number (percentage) of people affected. Compare this to statistics in the US.
6. Have students respond to the following real-life scenarios, either in small groups or in a journal:  
A) Water comes on at 8:45; you have an important meeting at 9:00. Do you stay to fill buckets, or do you go? B) Respond to this Yoruba Proverb: “One does not throw away all the water in the house because the rain threatens.” C) See picture on website: “When life hands you lemons, make lemonade.” D) The well is two miles from your home. What is the most effective way to get the water home?
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- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.

Formative Evaluation (Req.): Class discussion

Assessment (Req.): Students can write a short paper summarizing the similarities/differences in the uses of water between Nigeria and the US.

Iowa Core Curriculum Standards Used (Req.):

- Geography, grade 6-8: Understand how geographic and human characteristics create culture and define regions.
- Geography, grade 6-8: Understand how human factors and the distribution of resources affect the development society and the movement of populations.
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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.):

- The physical and human characteristics of places
- The processes, patterns, and functions of human settlement

- The changes that occur in the meaning, use, distribution, and importance of resources
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<p>Five Themes of Geography Used (Req.):</p> <ul style="list-style-type: none"> <li>• Human-Environmental Interaction</li> <li>• Movement</li> <li>•</li> <li>•</li> <li>•</li> </ul>	<p>School District Standards and Benchmarks (Opt.):</p> <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>
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21<sup>st</sup> Century Universal Constructs (Opt.):

- Other Disciplinary Standards (Opt.):
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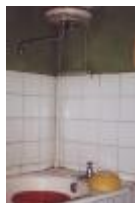
Other Essential Information (Opt.):

- Other Resources (Opt.):
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# WATER



River in Ibadan



A bucket is always kept full for those days when there is no water.



The water tank is higher than the house so that the owner can have running water on the second floor.



Water tank



Collecting water from the well



Well located by the river.



There is no garbage pick up service so it has been deposited by the river.



Garbage



Six weeks of garbage



Washing barrels that previously held chemicals.



Washing clothes and bathing children down river from the sight where the men are washing the barrels.



Washing clothes and children in Ibadan.



Yankari hot springs



Gathering water to drink from the natural spring.



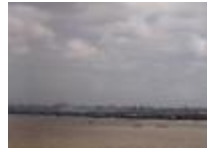
Swimming in the hot springs at Yankari.



Swan's bottled water



Kokodome



Niger river  
(Note the small  
fishing boats.)



When it rains - you  
wait.



Waiting for the rain to  
stop in the Onitsha  
market place.