

New World Water

Lesson Overview: This lesson is intended to challenge the popular paradigm of water use and water conservation. The lesson incorporates music, literary analysis, geographic analysis, small groups work, and extended response practice. This lesson is based on information presented at the 2010 University of Chicago Teacher Institute, "Water: An Interdisciplinary Examination of the World's Most Essential Resource."

Written By: Willis Niederfrank, Spanish, Social Studies, Language Arts, Ariel Community Academy

Subject(s): Social Studies

Suggested Grade Level(s): 8th -12th Grade

Time Duration: One 60 minute class period

IL Learning Standards Addressed:

Political Systems

14.C.3 Compare historical issues involving rights, roles and status of individuals in relation to municipalities, states and the nation.

Social Systems

18.B.3a Analyze how individuals and groups interact with and within institutions.

Geography

17.C.4a Explain the ability of modern technology to alter geographic features and the impacts of these modifications on human activities.

17.C.3b Explain how patterns of resources are used throughout the world.

Objectives:

- Students will analyze lyrical content of a piece of popular music and think critically about the piece's purpose.
- Students will compare and contrast data contained on different maps representing water use and resources and draw conclusions based on this information.
- Students will examine the challenges of large-scale water conservation and management, using public speaking skills to explain these issues to the class.
- Students will engage in political action through a writing activity that requires critical thought and evaluation of the material presented during the lesson.

Materials:

- Lyrics to Mos Def's song "New World Water" found here: <http://aguanomics.com/2009/01/mos-defs-new-world-water.html> - Note: Explicit lyrical content, teachers may wish to only use selected lyrics.
- Dr. Marty Matlock's PowerPoint presentation from the 2010 Summer Institute on Water found here: <http://cis.uchicago.edu/outreach/summerinstitute/2010/documents/sti2010-matlock-presentation.ppt>
- WWF Report, "Rich Countries, Poor Water" found here: <http://cis.uchicago.edu/outreach/summerinstitute/2010/documents/sti2010-matlock-rich-countries-poor-water.pdf>
- Chart paper and markers for groups to use during jigsaw reading

Activities and Procedures:

1. **Opening (5-10 minutes):** Begin lesson by passing out copies of the lyrics to "New World Water." It should be noted that the lyrics do contain some explicit language, which can be removed if necessary without compromising the song's integrity or purpose for this lesson. The page reached from the hyperlink given in this lesson also contains a link to listen to the song, which can be found online or otherwise purchased through iTunes. Once the song has played, ask students what was the author's purpose and the author's message was in the song they just heard. *Answers will vary—the purpose is both to inform and entertain, and the message is that water is a precious resource that needs to be protected.*
2. **Introduction of New Material (5-10 minutes):** Next, students form mixed-ability small groups of 3-4. Instruct students to brainstorm in their groups for 3-5 minutes and name the different ways that water is used each day. Ask them to think about how they have used water from the beginning of the day until the end. To encourage participation, the group that is able to name the most ways can be awarded a prize (a water bottle, a free trip to the fountain, etc.). When time is up, ask each group to share their lists, which can be copied by a student on a chalkboard or overhead projector. Expect suggestions such as "brushing my teeth," "showering," "drinking," etc. Once lists have been shared, ask students what activity uses the most water. Teacher explains that it is agriculture which ultimately accounts for 70% of our water use, and that it is not just individual habits that need to change in order to preserve water resources, but economic practices as well.
3. **Guided Practice (10-15 minutes):** Project slides 9, 10, and 11 from Dr. Matlock's presentation. Slides may also be printed out in the absence of a projector. As a class, students should comment on what they see on each of the maps. Ask your class questions such as, "What information is represented on each map?" "How is the information depicted?" "What regions are most affected by the information given?" Give groups one minute to talk over their ideas, and call on them to share with the class. Teacher should also ask questions that promote evaluation and synthesis of previous knowledge with information on the maps such as, "How is

water used differently around the world?" "How can water be better conserved in Northern Africa as opposed to in Europe?" "What differences are there in the water use of developing and developed countries?" "Why do Europe and North America use more water for industry than other regions?" "How is water used in regions that have scarce water supplies as opposed to those that have ample supplies?" "Why?" "Are water resources spread equally throughout the world?" Choose which analytical questions to ask based on time and your students' interests. Try to facilitate a group discussion on these issues.

4. **Guided Practice, continued (20 minutes):** After the maps have been examined and the issue of water conservation has been contextualized as a challenge that involves large-scale use as well as individual use, students should be given a copy of pages 3-6 from "Rich Countries, Poor Water." Provide each small group with a piece of chart paper and a marker. Introduce the reading to students by explaining that the text is a deeper exploration of the issues that were discussed during map analysis. Give each small group a section of the reading to read carefully and explain to the class (jigsaw style). Allow students 10 minutes to read and create a graphic summary on their chart paper. Circulate and monitor reading comprehension. When the ten minutes have ended, each small group should explain the information from their section to the class, and place their chart papers in a visible area of the classroom.
5. **Closing (5 minutes):** Summarize readings and introduce homework assignment.

Assessments (independent practice):

For homework, have students prepare a letter to a congressional representative, senator, or UN ambassador as a citizen concerned about the large-scale mismanagement of water resources. Depending on the students' writing level/ability, length of the letter may be adapted at the teacher's discretion, but the letters should clearly explain the current challenges of water conservation as well as solutions proposed by the document read in class. Additionally, students must cite information from the map analysis activity in their letters. Letters can be displayed in the classroom, hallway, or mailed to the addressees.

Adaptations:

The lesson can be adapted to suit the classroom needs of the teacher and students. Map analysis may be designated as independent work, as well as the reading portion of the lesson. Students may be formatively assessed on how much their thinking grew, for example, by comparing statements made on an entrance/exit card. The readings may be adapted depending on students' levels, or shortened for time. All materials can be shortened or adapted for language, depending on what the teacher deems appropriate for their school culture or relevant to the lesson.