

THE AMERICAN SOUTHWEST: ARE WE RUNNING DRY? WATER RELATED HEALTH ISSUES

Post Screening Activity 1 Quantity vs. Quality

Overview: While viewing the movie The American Southwest: Are We Running Dry? two water health issues will become apparent: the availability of water and the quality of the water that is available for human consumption and use. Students will construct an argument for one of these two positions as they argue for funding during the post-visit activities.

Materials:

- The American Southwest: Are We Running Dry?
- Computers with Internet access

Background:

Tapped Out written by Paul Simon in 1998 inspired the pair of movies, Running Dry: Call to Action and The American Southwest: Are We Running Dry?, in an attempt to arouse citizens to address the cataclysmic crisis related to water. Often the public's focus is on the quality of the water available, yet the real issue is the quantity of available fresh water.

Throughout the history of the United States, a variety of illnesses have consumed our attention. Over a century ago, malaria was a leading killer in the United States. Through research and medical advancements the population of mosquitoes breeding in standing water has been diminished and malaria is almost non-existent in the United States. Unfortunately this is not the case worldwide. Diarrhea related to poor water quality kills more than four million per year and could be countered with oral rehydration salts (ORT) at a minimal cost. Schistosomiasis, a disease carried by water snails found in standing water, river blindness, and Guinea worm disease are parasitic problems found in Africa, S. America, and Asia (http://www.cdc.gov/healthyswimming/water_illness_a_to_z.htm). The philosophy maintained is, "Bad water is better than no water."

On the other hand, humans need water in greater and greater quantities as the population has exploded to nearly 7 billion people. The human body is 70% water and a mere loss of 1% causes one to feel thirsty. A slight fever will occur when there is a 5% drop in water and with an 8% to 10% depletion the salivary glands cease operation and walking becomes impossible. When water loss reaches 12%, death is imminent. Add to this human need for water, the agricultural water needs, and the dropping levels of the aquifers, the availability of fresh water becomes apparent.

Focus Questions:

Is the quantity of water or the quality of available water the greater concern worldwide? Which water related health issue should be given funding priority – addressing the quantity of available water or the quality of available water?

Activity:

1. Introduce the term potable water (water of sufficient quality to be drinkable) and carrying capacity (the number of individuals able to be supported by natural resources, in this discussion - water).
2. Ask students to identify if it is the quality or quantity of water that is the greatest concern? Choose a position, either water quantity or water quality, prior to viewing The American Southwest: Are We Running Dry? (The teacher may want to assign students to a position for debate purposes following the movie.)
3. While viewing The American Southwest: Are We Running Dry? identify water issues related to either the quantity and quality of available water.
4. View the movie.

Post Screening Activity #1:

1. Following the movie, pose the following question to the students: Which water related health issue should be given funding priority – addressing the quantity of available water or the quality of available water?
2. Have students meet in groups based on their position to develop an argument for their position.
3. Each group should identify the water issues addressed in the movie related to either the quantity or quality of available water in the American Southwest.
4. Research water quantity/quality issues using a computer with internet access. Both groups need to be armed with facts and be ready to disprove the others position. Make sure each group understands the need to address the points made by the opposition in order to persuade a committee for funding.
5. Allow a week outside of class for students to continue to gather facts and formulate arguments. One or more post-visit activities may be completed during this time frame.
6. Hold a classroom debate. Establish guidelines. Each side will be given a chance to express their position and then alternating arguments will be heard.
7. Discuss the process and summarize findings.

Evaluation Rubric:

Exceptional	Acceptable	Unacceptable
Actively researched, discussed, and critically evaluated assigned topic; developed a thesis statement with supporting evidence; public speaking techniques defended the position with logic and evidence; scientific evidence is accurate and complete	Participated in research and discussions; identified evidence to support a position; public speaking techniques are employed; scientific evidence supports the position	Little or no participation in research or discussions; public speaking techniques are not evident; scientific evidence is limited or non-existent