

Lesson 11:

The Value of Water

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LESSON PLAN

The Value of Water



PowerPoint Slide Show

[NOTE: Lesson 1 contains content information from Lessons 6-19 in a series of PowerPoint slides. The PowerPoint is divided lesson-by-lesson, so teachers can select the appropriate slides to either introduce a lesson or review any Lesson from 6-19.]

Lesson Objectives:

- Students will learn about potential threats to community water supplies and proposed means to protect water resources.
- Students will reflect on the values they hold about water and how those values impact the sustainability of our water resources.
- Students will identify how the value system and policy positions of an author are reflected in the imagery and language of a book cover and table of contents.

Vocabulary:

greenhouse gas, groundwater, water wars, methyl mercury, dioxin, North American Water Office, stewardship, wastewater reclamation, water utility, infrastructure, private equity, desalination, commodity, water cycle, water privatization

Media: book covers, tables of contents

Materials Needed:

- Ten-page *Teacher Guide*
- Eight slide PowerPoint slideshow
- One-page Student Worksheet

Time: 40 minutes

Lesson Procedures

- Ask the question, “What is water for?”
- Present the *Lesson introduction* to the class.
- Divide the class into four teams and distribute one *Student Worksheet* to each group.
- Assign each team a pair of media documents and have teams study the document covers and tables of contents as they complete the worksheet.
- Project the slides and lead a document decoding using *Media Sample Questions & Answers*.
- Lead a discussion of the essential question: **What values do you hold about water and how do those values impact the sustainability of our water resources?**
- (Optional) Discuss *Further Questions* and investigate the *Extended Activities*.

TEACHER GUIDE

The Value of Water



PowerPoint
Slide Show

1. Organize and make copies for the class activities.
2. Ask the question: "What is water for?" Solicit a wide range of possible answers without critiquing or analyzing them. This should be a brief opening exercise designed to get students thinking about the value they place on water. If students have a hard time answering, you might offer some tentative ideas: "For instance, some would say that water is essential for health or that water is the key to all life or that water is a precious commodity."
3. Introduce the lesson:

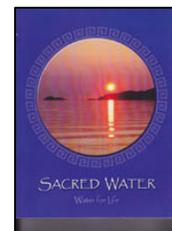
Lesson Introduction

In July 2010, the United Nations General Assembly "declare[d] the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights" (p. 3). In making this declaration, the UN "call[ed] upon on states and international organizations to provide financial resources, capacity-building and technology transfer, through international assistance and cooperation, in particular to developing countries, in order to scale up efforts to provide safe, clean, accessible and affordable drinking water and sanitation for all (2010, p. 3)." Everyone can agree that water is necessary for life, but people differ on whether water is a right or a privilege - a commodity to be sold, or a sacred trust to be protected. In this lesson you will be asked to consider the values we place on water by exploring the classic media literacy question: "Can you judge a book by its cover," or for that matter, by its table of contents? In most cases, the table of contents lists that you will see are excerpts from the longer lists included in the books. The writer of this curriculum chose these chapter headings to accentuate certain value statements and to save space on the PowerPoint slides.

4. Divide the class into four teams and distribute the *Student Worksheets*. **[NOTE: If you need to shorten the lesson, you may elect to offer this as a full class decoding and dispense with assigning teams and distributing worksheets.]**
5. Assign teams one of the four pairs of PowerPoint slides (numbered 1-8). Explain how students can access the Student Materials section on the Project Look Sharp homepage. **[NOTE: Teachers can also print out the slide pairings and distribute a pair to teach of the four groups.]**
6. Explain that each team should study their pair of media document covers and tables of contents, looking for evidence from the documents to address the three questions on the worksheet. Encourage teams to discuss the different values ascribed to water as represented in their document pairing and how those different values might impact the effort to maintain sustainable water resources.
7. Project the PowerPoint slides and lead a document decoding using *Media Sample Questions & Answers* in the *Teacher Guide*. *Possible Answers* are included to model application of key knowledge through evidence-based analysis. Chapter headings are referenced by numbers in parentheses in the *Possible Answers*.



Document 1
Sacred Water: Water for Life
Teacher guide
Lea Foushee
2010



Media Sample Questions & Answers

1) What threats to water supplies are suggested in the cover and chapter headings?

Possible Answer: Threats include environmental contamination and subsequent human health concerns. (B)

2) What potential ways to protect our water supply are suggested in the cover and chapter headings?

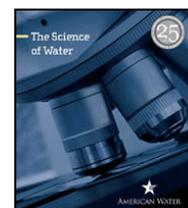
Possible Answer: Protection solutions include learning from traditional native wisdom (A & C) and community based education and energy development (C).

3) What are the values about water that are explicit or implied in this book cover and chapter headings?

Possible Answer: Explicit values include water as a sacred gift uniting people with all creation (cover & A).



Document 2
"The Science of Water"
Brochure
American Water
2008



Media Sample Questions & Answers

1) What threats to water supplies are suggested in the cover and chapter headings?

Possible Answer: Threats include unspecified environmental challenges (D).

2) What potential ways to protect our water supply are suggested in the cover and chapter headings?

Possible Answer: Protection solutions include research (B), testing and controls (C), and wastewater reclamation (E).

3) What are the values about water that are explicit or implied in this book cover and chapter headings?

Possible Answer: Explicit values include water is a resource to be protected by science and industry (cover & A).



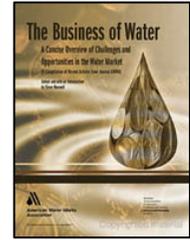
Document 3

The Business of Water: A Concise Overview of the Challenges and Opportunities in the Water Market

Report

American Waterworks Association

2008



Media Sample Questions & Answers

1) What threats to water supplies are suggested in the cover and chapter headings?

Possible Answer: Threats include population growth and climate change (E), failing water system infrastructure (C), and freshwater scarcity (N).

2) What potential ways to protect our water supply are suggested in the cover and chapter headings?

Possible Answer: Protection solutions include supporting the for-profit water market (cover, (A-C) by corporate consolidation (G), private equity investment (H), wastewater reclamation (I), desalination (J) and technological innovation (K, L).

3) What are the values about water that are explicit or implied in this book cover and chapter headings?

Possible Answer: Explicit values include water is a commodity that can best be managed by capital investment strategies (cover & B, H, M, O).



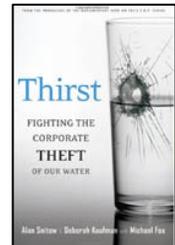
Document 4

Thirst: Fighting the Corporate Theft of our Water

Book

Alan Snitow, Deborah Kaufman, and Michael Fox

2007



Media Sample Questions & Answers

1) What threats to water supplies are suggested in the cover and chapter headings?

Possible Answer: Threats include corporations taking control of community water supplies (cover, B-E).

2) What potential ways to protect our water supply are suggested in the cover and chapter headings?

Possible Answer: Protection solutions include struggling against corporate takeover of water resources (B, D).

3) What are the values about water that are explicit or implied in this book cover and chapter headings?

Possible Answer: Implied values include water is a human right that should not be managed by corporations (cover, A, G).



Document 5
“Water: A Challenge, Our Business, Complete Control of the Water Cycle”
Brochure
Suez Environment
2009



Media Sample Questions & Answers

1) What threats to water supplies are suggested in the cover and chapter headings?

Possible Answer: Threats include unspecified threats to the coastline. (K)

2) What potential ways to protect our water supply are suggested in the cover and chapter headings?

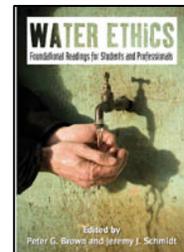
Possible Answer: Protection solutions include Suez’s ability to completely control the water cycle (cover & B), business modeling (D), monitoring (I) and managing customers (L) and water assets. (M)

3) What are the values about water that are explicit or implied in this book cover and chapter headings?

Possible Answer: Explicit values include water is an asset that must be completely controlled by management experts. (cover, B, G & M)



Document 6
Water Ethics: Foundational Readings for Students and Professionals
Book
Peter G. Brown and Jeremy J. Schmidt
2010



Media Sample Questions & Answer

1) What threats to water supplies are suggested in the cover and chapter headings?

Possible Answer: Threats include the human assumption of dominion over water (B) and the absence of a common water ethic (E).

2) What potential ways to protect our water supply are suggested in the cover and chapter headings?

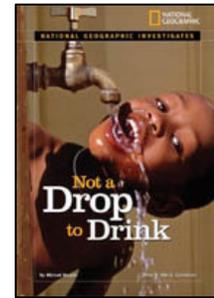
Possible Answer: Protection solutions include development of a collective water ethic (cover, A-F), understanding the social and cultural framework of water ethics (B) and pragmatic, adaptive management of water resources (D).

3) What are the values about water that are explicit or implied in this book cover and chapter headings?

Possible Answer: Explicit values include water is a natural common wealth for all species (E).



Document 7
National Geographic Investigates: Not a Drop to Drink: Water
Children's Book
Michael Burgan
2008



Media Sample Questions & Answers

1) What threats to water supplies are suggested in the cover and chapter headings?

Possible Answer: Threats include short supplies (C), irrigation and water wars (D).

2) What potential ways to protect our water supply are suggested in the cover and chapter headings?

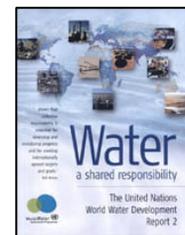
Possible Answer: Protection solutions include education and research (A, B).

3) What are the values about water that are explicit or implied in this book cover and chapter headings?

Possible Answer: Implied values include water is a finite resource that should be shared (cover & D).



Document 9
Water a Shared Responsibility: The United Nations World Water Development Report 2
Book
United Nations
2006



Media Sample Questions & Answers

1) What threats to water supplies are suggested in the cover and chapter headings?

Possible Answer: Threats include urbanization (A), agricultural and industrial needs. (C)

2) What potential ways to protect our water supply are suggested in the cover and chapter headings?

Possible Answer: Protection solutions include monitoring water resources (cover), managing water resources, charging for water (D) and sharing responsibilities for water governance (cover & E).

3) What are the values about water that are explicit or implied in this book cover and chapter headings?

Possible Answer: Explicit values include water is a collective responsibility for shared human stewardship (cover & D).

8. Lead a discussion of the essential question: **What values do you hold about water and how do those values impact the sustainability of our water resources?**

Probe questions might include:

- Which value statements do you most support and why?
- Which values statements do you oppose and why?
- What are the strengths and weaknesses of each of the books' value summaries as a value system to support the sustainability of water resources?
- How have you arrived at your own beliefs about the meaning and value of water?
- How do values impact policy or behavior?

FURTHER QUESTIONS

Analyzing Media Messages

Why are book covers considered to be advertisements? Are tables of contents advertisements as well? Why or why not?

What other parts of the book could you skim to get information about perspective?

Which book cover is most effective in encouraging further reading? Which is least effective? Why?

The writer of this curriculum chose the book covers from a wide range of options. He selected the chapter headings to accentuate certain value statements and to save space on each slide. **Is this curriculum a media construction? Is this true of all curricula? Why or why not?**

Can you judge a book by its cover? Can you judge a book by its table of contents? Which is the better indicator of the substance of the book?

Self Reflection

Which of these books most closely reflects your own value system about water? Why?

With whom have you reflected on the meaning of water in your life?

What does water mean to you?

What is the source of the water you use every day?

Underlying Values and Motives:

The United Nations General Assembly declared “the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights.”

Should the UN also declare clean air and soil as basic human rights? Why or why not?

Should people who choose to live in the desert southwest have the same right to drinking water as people who choose to live near the Great Lakes? Why or why not?

Should homeowners be allowed to use an unlimited amount of water to water their lawns and gardens? Should they pay for the water they use?

Should corporations be allowed to use an unlimited amount of water to manage their operations? Should they pay for the water they use?

Large rivers like the Colorado travel many miles from the river source in the mountains to the river mouth at the sea. In between the water is used by individual homeowners and communities and for agricultural, recreational and industrial uses. **Who should decide how water is to be used along the length of such a river? Is it fair for those living or working closer to the river’s source to have more access to water than those living nearer to its mouth?**

What other human rights are sometimes controlled by corporations? (education, labor organizing, etc.). Who benefits when corporations control the exercise of human rights?

What actions has your local water utility taken that illustrate the utility’s values about water and sustainability? Do the actions reflect your values? If not, what could you do?

ADDITIONAL INFORMATION

The value of water as seen by individuals and groups represented in each of these books:

Sacred Water: Water for Life (from frontispiece & back cover)

“Water for life. We must listen. The water sings life. Mother earth is our natural delight. The water roars and rises in spirit strength. The water tells us we are one.” (John Trudell)

‘Dedicated to seven generations in the future. In honor of seven generations past.

But, yet there is hope. As it is said that in the time of the Seventh Fire a new people shall arise. What are you doing, what you are trying to do is part of what they were talking about.’” (Bawdwaywidun Benaise & Eddie Benton-Benai)

The Science of Water

“American Water was founded in 1886 as American Water Works and Guarantee Company. We formalized our water research program 25 years ago to show our continued commitment to environmental leadership.

‘Our primary mission is to provide high-quality water and wastewater service to our customers while enhancing the environment in which we live. We take very seriously our role as protectors and innovators in the water industry. And because trust is something we earn every day, we take great care to protect it.’” - Dr. Mark W. LeChevallier (as cited in American Water, 2008, p. 1).

The Business of Water

“We need to remember and remind our friends and neighbors that the amount of freshwater is essentially fixed. We need to become much smarter and much more efficient in our treatment and usage of this increasingly scarce resource...As the global water crisis intensifies we face numerous and daunting political and economic challenges but there will also be almost limitless opportunities for creative, innovative and well-managed solutions. I hope that the articles in this compilation will shed new light on this challenge and will serve as useful background to those technology developers, investigators, business managers, and policy makers who will contribute to solving these problems and meeting these challenges in the future.” (Maxwell, 2008, p. 1,13).

Thirst (from the beginning of the last chapter, “Whose Water, Whose World Is It?” p 195)

“The stories we tell in this book are just a few examples of a growing grassroots rebellion that has stunned the private water industry. In the space of a few years, scattered local coalitions to protect water as a public trust have coalesced into the beginnings of a formidable national and international movement. As we have traveled across the United States we have seen an increasing awareness of, and involvement in this new movement—from groups of college students rallying against the abuses of bottled-water companies, to local citizen’s groups challenging privatization, to national consumer, environmental, and labor organizations fighting to protect public resources. The wellspring of energy and depth of commitment signal a remarkable reaffirmation of public participation in our communities and in political life” (Snitow, Kaufman, & Fox, 2007, p. 195).

Water: A Challenge, Our Business from the opening statement by Suez Environment CEO

“Suez Environment is universally recognised for the professionalism of its women and men in water business lines. Our know-how, expertise, and ongoing innovation enable us to meet all the water service needs of municipalities, industrial companies and consumers. In the 19th century, Lyonnaise des Eaux teams began to produce and distribute drinking water for towns and cities across France. Today, we continue this tradition at Suez Environment Each contract we are awarded is an opportunity to gain further experience and to build a community of experts and technicians whose sole ambition is to achieve excellence. The defining characteristic of this community is its willingness to share and maximize expertise, from the head office to the treatment plant floor” (as cited in Suez Environment, 2010, p. 3).

Water Ethics from the editor’s introduction

“The last transfiguration in the process of evolution appears as the ethics of mankind...By his arts, institutions, languages and philosophies he has organized a new kingdom of matter over which he rules. The beasts of the field, the birds of the air, the denizens of the waters, the winds, the waves, the rivers, the seas, the mountains, the valleys, are his subjects. The powers of nature are his servants, and the granite earth his throne. – Major John Wesley Powell

In the literature on ethics, and in environmental ethics in particular, the term dominion has come to represent the position that water, and indeed all of the earth’s natural resources, is to be used at humanity’s discretion. Regardless of any other uses these resources may be put to now or in the future, human uses take priority. Human claims to water vary from property rights to the rightful place of water within social or religious belief systems. Many authors criticize a dominion view of water as anthropocentric, instrumental and patriarchal. Here we offer a brief explanation of the idea of dominion, introduce criticisms of it, and provide some subsequent responses to these criticisms” (Brown & Schmidt, 2010, p. 19).

Not a Drop to Drink from consultant’s message by Peter Gleick

“We are creatures of water. We evolved from the oceans, and if we didn’t now live on dry land, we would call the planet “Water,” not “Earth,” because it is largely covered with this most precious resource. We depend on water for all we do, from growing the food we eat to cleaning our homes and clothes to producing the goods and services we consume every day. Yet the world is in a water crisis. Billions of people still lack safe drinking water and adequate sanitation, leading to unnecessary illness and death...Countries and regions fight over access to increasingly scarce water resources. Our oceans are overfished, underprotected and still largely mysterious to us. And we are changing the very climate of the planet. The good news is that smart people around the world are studying our water resources, learning how those resources can be used carefully, and helping all of us move from a world in crisis to a world that supports people, birds, fish, animals and the natural environment sustainably into the future” (as cited in Burgan, 2008, p. 8).

Water: A Shared Responsibility from the foreword by UN Secretary General Kofi Annan

“Water is an essential life-sustaining element. It pervades our lives and is deeply embedded in our cultural backgrounds. The basic human needs of a secure food supply and freedom from disease depend on it. Social development – endeavours such as the smooth functioning of hospitals – likewise relies on the availability of clean water. Economic development requires energy resources and industrial activities, and both are in turn water-dependent. The provision of sanitation for girls in schools offers yet another example of water’s broader links – it has positive effects on hygiene and health, keeps girls in school, and helps to safeguard the natural environment. For these reasons and many more, access to safe drinking water and sanitation is both a development target in its own right and integrally linked to achieving all the Millennium Development Goals” (United Nations, 2006, iv).

EXTENDED ACTIVITIES

Some people consider themselves to be “waterkeepers,” or stewards of the watersheds in their region. Interview a waterkeeper in your area about the values they bring to his/her stewardship.

Organize an action to promote the sustainability of water in your home community. Who will you include in your organizing efforts and who might be left out? Make an effort to reach out to people and groups with whom you do not know well in order to expand your own circle of awareness.

Research how efficiently water is used and conserved in your school and post your findings in a public forum. Make sure to include all forms of water used in your school including in restrooms and showers, building maintenance, heating and cooling systems, kitchens, and landscaping.

Study the role of social justice in water decisions in your community and region. Who participates in decisions about water use and who is left out? Why are certain individuals and groups making decisions that impact the water use of others? Write an opinion piece for your local newspaper based on your findings.

Create your own media production based on a primary question about water such as “What is water for?” or “Who controls your water?”

Find the people in your community who are studying local impacts of climate change. Ask them about the impact of climate change on water usage in your area. Share this information with your peers and take action in response to your findings.

Read the brief excerpts in the *Additional Information* and select one source to read. Make a report on this source to your class. Explain how your perceptions about the value of water have been changed or informed by your reading.

Undertake a comparative study of media coverage of the impact of POPs (persistent organic pollutants), like methyl mercury and dioxin in your area, in the country and around the world.

From what you see on the cover and in the chapter headings, write a brief summary of each media document.

CONNECTIONS

L 6, 11, 12, 13, 19
(water rights)

L8, 9, 11, 12, 13, 15, 16, 18, 19
(global trade)

L3, 6, 9, 11, 16, 17, 18, 19
(climate change)

L2, 7, 11, 13, 17, 19
(creative arts)



Student Worksheet

NAME _____

DATE _____

To access media documents, go to the *Student Materials* section on the Project Look Sharp homepage - www.projectlooksharp.org

Title of media document: _____

- 1) What threats to water supplies are suggested in the cover and chapter headings?

- 2) What potential ways to protect our water supply are suggested in the cover and chapter headings?

- 3) What are the values about water that are explicit or implied in this book cover and chapter headings?

Title of media document: _____

- 1) What threats to water supplies are suggested in the cover and chapter headings?

- 2) What potential ways to protect our water supply are suggested in the cover and chapter headings?

- 3) What are the values about water that are explicit or implied in this book cover and chapter headings?

