

Nancy Bo Flood

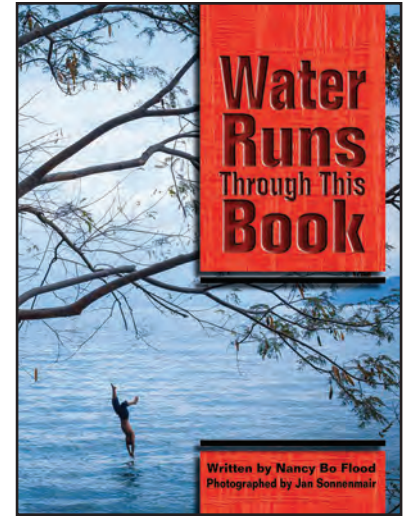
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Water Runs Through This Book

written by Nancy Bo Flood, photographs by Jan Sonnenmaier
published by Fulcrum Publishing, ISBN: 9781936218134, ages 10 to adult

SYNOPSIS

“A beautiful combination of photographs, verse, and narration celebrating the most essential ingredient to life: water. Author and educator Nancy Bo Flood explores this ever-changing and mysterious element. Poems and stories celebrating water are paired with stunning photographs from Jan Sonnenmaier. *Water Runs Through This Book* will inspire a passion for the wonders of nature.”



About Nancy Bo Flood

Award-winning author, Nancy Bo Flood tells us to, “Read anything and everything. You learn interesting stuff, meet interesting people, and go places you have never been. Read every day.” Nancy Bo Flood herself has been a voracious reader since she was very young — when she read piles of comic books in bed at night with a flashlight! She has learned the importance of story through her own reading, as well as her education, work, and travels. She has worked as a scientific researcher both at the University of Minnesota and the University of London. Her travels and work have brought her to many places throughout the world such as Africa, the western Pacific, and Japan. She currently lives on the Navajo Nation Reservation in Arizona. Bo Flood has observed and listened carefully to the stories of individuals throughout the world. These stories have become the inspiration for much of her writing. She published her first book, *Working Together against World Hunger*, in 1995. Her books published since 1995 include:

- © *Cowboy Up, Ride the Navajo Rodeo*
- © *The Hogan That Great-Grandfather Built*
- © *Navajo Year, Walk Through Many Seasons*
- © *No-Name Baby*
- © *Sand to Stone and Back Again*
- © *Warriors in the Crossfire*
- © several collections of legends and stories





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Discussion Questions

Some of Nancy Bo Flood's varied interests include children, animals (especially horses and dogs), world cultures, exploring (walking and hiking), baking cookies, the ocean, farms, the rodeo, the music of Bob Marley and Big Time Rush, television shows like *Glee* and *NCIS*, and books like *When Bob Met Woody: The Story of a Young Bob Dylan* (Gary Golio, Marc Burckhardt) and *One Crazy Summer* (Rita Williams-Garcia).

Her advice to us? "Walk in beauty." She learned the importance of "walking in peace and harmony with all around you" from the Navajo.

nancyboflood.com.

About Jan Sonnenmair

Professional commercial and documentary photographer and photojournalist Jan Sonnenmair tells us that, "To produce photos that tell a visual story day in and day out...requires a combination of technique plus the Zen of observation." Like author Nancy Bo Flood, illustrator Jan Sonnenmair, believes in the power of storytelling. However, the stories she tells are not told through words. They are told through photography. Common themes found in her work include social issues, women, and children. In addition to her work as a photographer, Sonnenmair also teaches. She is perhaps best known for her iconic photo of Devonte Hart published in the *San Francisco Chronicle* and *Cowboy Up! Ride the Navajo Rodeo!*, which she illustrated. Her interest in iPhone photography has led to teaching classes on the subject. Sonnenmair's other interests include travel, camping, hiking, and children.

www.sonnenmair.com

Check out "[Zen and the Art of Nutcase](#) – Photographer Jan Sonnenmair."



Before You Read

A NOTE FOR TEACHERS: The following questions and activities support the Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects for Grades 5 – 8; the Next Generation Science Standards; the National Science Standards Framework; the Common Core Math Standards; and the National Core Arts Standards.

1. How many gallons of water would you estimate that you use every day? The average American? The average human? Do you think you use more or less water than those who live in other parts of the world? Explain.
2. List all of the ways that you can think of that you use water every day.



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3. As you read *Water Runs Through This Book*, keep a list of all of the **WORDS** that are unfamiliar to you. When you finish the book, try to define the **WORD** using the knowledge you've gained through your reading. Finally, look up the **WORDS** you are unable to define (some may be defined in the book's **GLOSSARY** on page 62). You may need to use other sources for words not defined in the **GLOSSARY**. For instance, do you know what a "watershed" is? Do you know what "arid" means?
4. In her opening remarks author, Nancy Bo Flood, says that "Water is life." This is the central **THEME** or **IDEA** of *Water Runs Through This Book*. Based on what you already know, explain why you agree or disagree with this statement.

Once you have completed your reading and discussion of *Water Runs Through This Book*, return to these questions.



After You've Read

Mathematics Questions

1. YOU ARE WATER

- a. One way in which the author, Nancy Bo Flood, supports her ideas throughout *Water Runs Through This Book* is with **STATISTICS** (which *Dictionary.com* defines as "numerical facts or data"). For instance, she tells us in this chapter that, "Every day we lose nearly 12 cups of water as we sweat, urinate, and breathe." Cite more examples of **STATISTICS** used in the book. Why are **STATISTICS** an important tool for writers to use in their work, especially those who write about science?

2. WALKING FOR WATER

- a. Count all of the sources of water in your home (places from which water flows). Be sure to include toilets, sinks, bathtubs, showers, wash machines, dishwashers, refrigerators, and hoses. Anything else? With your group, come up with a list of types of water sources found in your homes, as well as the number of each source your group has in their homes. Then combine these **TOTALS** with the **TOTALS** of the members of the other discussion groups in your class. What is the grand total? **CHART**, **GRAPH**, or **DIAGRAM** your findings using a free online tool like [JuiceLabs](#) or [chartgo](#).
- b. Now come up with some **STATISTICS** involving water sources and water usage in your homes.
 - (1) Put a slip of paper and something to write with by each of the sources of water in your home, and for three days ask your family members to mark each time they use each one of these sources.



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Discussion Questions

- (2) **TOTAL** the number of times each source is used, as well as the **TOTAL** number of times your family uses water sources in your home each day.
- (3) Find the **AVERAGE** number of times each source was used in a day, as well as the **AVERAGE** number of times all water sources are used in your home each day. **DIVIDE** this by the number of individuals in your home. How many times does each individual in your home, on **AVERAGE**, use each of these water sources a day? How many **TOTAL** times do the water sources in your home get used in a day?
- (4) **MULTIPLY** this by 365 days in a year. How many times a year, on **AVERAGE**, does each individual in your family use a source of water in your home?

3. MAKING SUPPER AND SHOES

- a. It has been **reported** that Imelda Marcos, the wife of the former president of the Philippines, owned over 3,000 pairs of shoes. How many pairs of shoes do you own? **MULTIPLY** this **TOTAL** by the 2000 gallons of water it takes to produce one pair of shoes. Share with your discussion group the number of gallons of water used to produce the shoes you own. What are some ways that you and your group members could decrease your water “footprint” in regards to your shoes?

www.dailymail.co.uk/news/article-2207353/Imelda-Marcos-legendary-3-000-plus-shoe-collection-destroyed-termites-floods-neglect.html

4. WHERE DOES YOUR WATER COME FROM? WHERE DOES IT GO?

- a. Find out where the water in your home is supplied from. What is its **SOURCE**? And when water goes down your drain, where does it go? Where does that water flow to? Is it treated? Why not take a field trip to a water treatment plant?



Science Questions

1. IN WEEPING AND HEALING

- a. Describe the process by which **TEARS** “take away the chemicals of sadness.”
- b. Before you read *Water Runs Through This Book*, had you ever thought of water as a **HEALER**?
 - a. Discuss some specific times in which water has had a **HEALING** effect on you or someone you know.

2. FIND WATER, FIND LIFE

- a. Several **BRANCHES OF SCIENCE** are referred to in *Water Runs Through This Book*. For example, the author refers to **ASTRONOMY** in this chapter when she discusses the global ocean found on Europa, Jupiter’s moon, discovered by planetary astronomer Mike Brown.



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What is studied in each of the following **BRANCHES OF SCIENCE**? Find an example of each of these **BRANCHES OF SCIENCE** in the book:

- ⑥ **ANATOMY**
- ⑥ **ASTROBIOLOGY**
- ⑥ **ASTRONOMY**
- ⑥ **BACTERIOLOGY**
- ⑥ **CHEMISTRY**
- ⑥ **ENVIRONMENTAL SCIENCE**
- ⑥ **GEOLOGY**
- ⑥ **ZOOLOGY**

For a complete list of the **BRANCHES OF SCIENCE**, consult:
www.educationoasis.com/curriculum/Science/ff/branchessci.htm

3. WATER POWERS LIFE

- a. An **ECOSYSTEM** is defined at <http://classroom.synonym.com/> in this way: “An ecosystem is comprised of all the non-living elements and living species in a specific local environment. Components of most ecosystems include water, air, sunlight, soil, plants, microorganisms, insects and animals.” Types of **ECOSYSTEMS** include deserts, as Nancy Bo Flood discusses in this chapter, coral reefs, grasslands, rain forests, and icecaps. Explore different types of **ECOSYSTEMS** and determine in which type of **ECOSYSTEM** you live. What role does water play in the **ECOSYSTEM** in which you live?

4. WATER MOVEMENT, CYCLES, AND IMPACT

- a. Describe the steps in the **WATER CYCLE**. Why is the **WATER CYCLE** important?
- b. What are the pros and cons of using herbicides, pesticides, and fertilizers?

5. ONE BODY, ONE WATERSHED

- a. Nancy Bo Flood describes the ways in which water impacts the different **SYSTEMS** in our bodies. At the beginning of this chapter, for example, she describes how water impacts the **CIRCULATORY SYSTEM**. Discuss ways in which water might impact any of the body’s **SYSTEMS** (found below), both those found in *Water Runs Through This Book* and others you can think of.

- ⑥ **CIRCULATORY**
- ⑥ **DIGESTIVE**
- ⑥ **ENDOCRINE**



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- ⑥ IMMUNE
- ⑥ LYMPHATIC
- ⑥ MUSCULAR
- ⑥ NERVOUS
- ⑥ REPRODUCTIVE
- ⑥ SKELETAL
- ⑥ URINARY

b. Define **WATERSHED**. How is your body like a **WATERSHED**?

6. WALKING FOR WATER

a. Author Nancy Bo Flood says that, “Clean water also means not feeling sick half the time because of drinking contaminated water.” What diseases are caused from drinking contaminated water? Check out **the UNICEF website** if you need help:

http://www.unicef.org/wash/index_wes_related.html

b. Discuss ways in which you can help to keep our water clean and safe.



English Language Arts Questions

1. FIND WATER, FIND LIFE

a. In this chapter the author **QUOTES** Albert Szent-Gyorgyl, who discovered Vitamin C: “Water is life’s matter and matrix, mother and medium. There is no life without water.” Nancy Bo Flood uses several **QUOTES** from others throughout *Water Runs Through This Book*. **QUOTES** are an important tool that authors often use to support their ideas, and can be included as evidence when writing a research paper. Choose one of the **QUOTES** found in the book. What do you know about the individual being quoted? If you know little or nothing, look this person up and see what you can find out about him or her. What do you think the quote means? How does it support Nancy Bo Flood’s ideas?

2. WATER POWERS LIFE

a. The author uses powerful poetic language throughout *Water Runs Through This Book*. For instance, in this chapter she uses **POETIC DEVICES** such as:

- ⑥ **ONOMATOPOEIA** (words that sound like the thing they describe): “Thunder booms, echoes, and rumbles.”
- ⑥ **PERSONIFICATION** (giving human qualities to something that is not human): “The desert waits for rain.”



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Ⓒ **SIMILES** (using the words “like” or “as” to compare one thing to another): “When monsoon rains finally fall, water is reabsorbed into the rock, like a dry sponge soaking up moisture,” or “Red mud courses over boulders, slicing paths between gulches, and then plunges like waterfalls over sandstone cliffs.”

Ⓒ **METAPHOR** (comparing two unlike things without using “like” or “as”): “Every male frog is calling, a seesaw baritone refrain, a symphony of rain song...”

b. Other **POETIC DEVICES** found in the book include:

Ⓒ **STRONG VERBS** (action words like “gushing” or “plunging”)

Ⓒ **STRONG NOUNS** (“magenta”)

Ⓒ **STRONG ADJECTIVES** (words that describe nouns “thundering vibrations”)

Ⓒ Find examples of each of these **POETIC DEVICES** throughout the book. Share these examples with those in your discussion group. What impact does the use of these **POETIC DEVICES** have on your reading of the book?

c. Once you have completed your reading and discussion of *Water Runs Through This Book*, write a poem using one of the **THEMES** found in the book (water conservation, water as fun and play, the beauty of water, etc.). Use at least three of the **POETIC DEVICES** discussed above in your poetry. Share your poem with your class through an oral presentation, through a display of the poems of you and your classmates and a “gallery walk,” or through a slide show with music.

3. WATER IS SACRED, WATER IS CEREMONY

a. In this chapter, Nancy Bo Flood uses many quotes to support her ideas about water and its relationship to **CULTURE** and **RELIGION**. Find a **QUOTE** about water from a famous cultural or religious leader. Share it with your discussion group and discuss its meaning. (Try sites like www.quotegarden.com/ and www.brainyquote.com/ where you can look up **QUOTES** by subject or author.) Tell a little bit about the **CULTURAL** or **RELIGIOUS** leader who made this statement. (You may need to look this information up as well.)





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Art Questions

1. IN LAUGHTER AND PLAY

- a. When we think of water usage, most of us probably don't think about ways in which we use water to **PLAY**. With your discussion group, brainstorm a list of all of the ways you can think of that we use water (in all of its forms) to **PLAY**. Discuss. Then:
 - (1) Find photos of people at **PLAY** with water and create a collage called "Water in Laughter and Play." Display your collage in the classroom.
- b. The photographer for *Water Runs Through This Book*, Jan Sonnenmair, is really interested in iPhone photography. See her blog, <http://myiphonefotos.blogspot.com/>. Use your Smartphone, that of another group member, or a device provided by your teacher to capture photos of people using water for **PLAY**. Collect your group's photos into a slideshow using a presentational tool of your choice (PowerPoint, Prezi, Animoto, Slideful, Kizoa, Glogster, Google Docs/Google Slides, etc.) Share your slideshow with the class.



Photo © Jan Sonnenmair, sonnenmair.com

2. WATER IS SACRED, WATER IS CEREMONY

- a. Many works of art either show water being used in a **RITUAL** or **CEREMONY**, or are actual items used as part of a **RITUAL** or **CEREMONY**. For instance, the water jar to the right is from 18th century Japan and was used as part of "chanoyu" (meaning "hot water for tea"), the Japanese tea ceremony.
- b. Find photos of famous works of art that show water being used in a **CULTURE**, or as part of a **RITUAL** or **CEREMONY**. Share these photos with your discussion group. Then display them in the classroom with a brief description of what the work of art shows us about water as it is used in **RITUAL** and **CEREMONY**. Do a "gallery walk" and explore the photos that your classmates have found. Discuss your reactions. Be sure to cite the source where you found the photo.



Water Jar for the Tea Ceremony with Seven Sages of the Bamboo Grove Design, Metropolitan Museum of Art, metmuseum.org



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Discussion Questions

3. WATER IS BEAUTY

- Find examples of works of art that show the **BEAUTY** of water, such as Vincent van Gogh's famous painting *Starry Night over the Rhone*, seen at right.
- Share these with your group or the class.
- Create a piece of art (pottery, drawing, painting, sculpture, mosaic, photograph, etc.) that demonstrates the **BEAUTY** of water.



Social Studies Questions

1. IN LAUGHTER AND PLAY

- Do you feel that the water we use for **PLAY** is a necessity or a luxury? This is a controversial topic. For instance, in the summer of 2015, citizens of the California faced a serious water shortage due to severe drought. Many individuals filled in their swimming pools because they used too much water. Do you see swimming pools as a necessity or a luxury? Discuss.
- Now read or listen to the story from *CBS News* called "Major Change for California's Pool Culture" or "Are California's Swimming Pools Guzzling Precious Water?" from the *Los Angeles Times*, which discuss the pros and cons of the swimming pool issue. Based on the **STATISTICS** and **OPINIONS** expressed in these articles, how do you feel about swimming pools?
- Discuss as a large group ways in which you can protect and conserve the water we use for **PLAY**.

2. WATER IS SACRED, WATER IS CEREMONY

- Consider the connection between one's **CULTURE** and **RELIGION** and water. Share examples from your own **CULTURE** and/or **RELIGION** of either beliefs about water or ceremonies involving water. For instance, the Hindu people believe that water, especially rivers, is sacred and holy. For more information on the relationship between water, and **CULTURE** and **RELIGION**, check out the eBook, *WATER, a way of life*.
- For a specific example of water being used as **CEREMONY** in a specific **CULTURE**, watch this video of the Thunderbird American Indian Dancers doing a **Rain Dance** at the Thunderbird American Indian Festival in 2012.

<https://www.youtube.com/watch?v=y2e1515l7Tc&list=RDy2e1515l7Tc#t=3>

- Consult with a local religious leader (rabbi, priest, minister, etc.) about their **RELIGION's** beliefs about water, and the ways in which water is used for **CEREMONY** within their **RELIGION**. Share your findings with the group via writing or discussion.



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Follow-Up

1. GOING, GOING...STOP!

- a. Reread Nancy Bo Flood's list of suggestions for how you can take **ACTION** (page 54). Come up with an **ACTION PLAN** for one way in which you as an individual, discussion group, or class can work to make a positive difference where the issue of **WATER** is concerned. Keep a journal of your progress. At the end of the semester or school year, report to your group and/or the class as to what you were able to accomplish.
2. Now that you have read the book and discussed it with your peers, do you agree or disagree with the author's **THEME**, "Water is life?" Give specific examples from the book to support your opinion.
3. What new **WORDS** have you learned from reading *Water Runs Through This Book*? Share those **WORDS** with your discussion group and classmates. Do you know what a "watershed" is now? Do you know the meaning of the **WORD** "arid?"



Explore Further:

1. DIGITAL RESOURCES

- a. Consult The Environmental Protection Agency's, "**Water on Tap: What You Need to Know**" for a guide on the current state of America's drinking water.
<http://water.epa.gov/drink/guide/>
- b. Visit **The Green Education Foundation**, which is "... a national non-profit organization committed to creating a sustainable future through education."
<http://www.greeneducationfoundation.org/>
- c. If you are interested in taking **ACTION**, explore:
 - (1) **Water.org** "Water.org provides innovative, market-based solutions that change lives every day through safe water and sanitation."
<http://water.org/>
 - (2) "H2O Organizations" found at the **Water for the Ages** website
<http://waterfortheages.org>
 - (3) **The Water Project** "The Water Project, Inc. is a "...non-profit organization unlocking human potential by providing sustainable water projects to communities in sub-Saharan Africa who suffer needlessly from a lack of access to clean water and proper sanitation."
<http://thewaterproject.org/>



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2. PRINT RESOURCES

- a. As the back matter offered by Nancy Bo Flood suggests, read Linda Sue Park's *A Long Walk to Water*. Additional **WATER** themed novels include:
 - ⑥ *Aquifer* by Jonathan Friesen (2013)
 - ⑥ *Flush* by Carl Haissan (2005)
 - ⑥ *Full Steam Ahead* by Paul L. Reynolds (2014)
 - ⑥ *Not a Drop to Drink* by Mindy McGinnis (2013)
- b. **WATER** themed nonfiction books that you might want to explore include:
 - ⑥ *All the Water in the World* by George Ella Lyon (2011)
 - ⑥ *The Boy Who Harnessed the Wind* by William Kamkwamba (2009)
 - ⑥ *Drinking Water: A History* by James Salzman (2013)
 - ⑥ *Every Last Drop: Bringing Clean Water Home* by Michelle Mulder (2014)
 - ⑥ *Explore Rivers and Ponds* by Carla Mooney (2012)
 - ⑥ *Eyes Wide Open: Going Behind the Environmental Headlines* by Paul Fleischman (2014)
 - ⑥ *One Well, the Story of Water on Earth* by Rosemary Woods (2007)
 - ⑥ *Running Dry: The Global Water Crisis* by Stuart A. Kallen (2015)
 - ⑥ *Splash: Learn about Water* by Nadia Higgins (2011)
 - ⑥ *You Wouldn't Want to Live Without Clean Water!* by Roger Canavan (2015)
- c. Additional resources can also be found on pages 60-61 of *Water Runs Through This Book*.

