

Title: Literature Reflects Reality: Exploring Water Scarcity Through Visual and Literary Analysis

Theme: Water

Featured Photos:

“Man Bathing”



(Guatemala) Sorting Garbage: To eke out a living... In this Oct. 19, 2011 photo, people search for scrap metal in contaminated water at the bottom of one of the biggest trash dumps in the city, known as "The Mine," in Guatemala City. [credit: Rodrigo Abd]

“Water Well”



(India) Water Well: Crowding around a communal well in India People gather to collect water from a huge well in the village of Natwarghad in the western Indian state of Gujarat on June 1, 2003. Natwargadh is in the midst of the worst drought in over a decade. Dams, wells and ponds have gone dry across the western and northern parts of Gujarat forcing people to wait for hours around village ponds for the irregular state-run water tankers to show up as the temperature sores to over 111 degrees Fahrenheit. [credit: Amit Dave]

“Dry Lake”



(Pakistan) Dry Lake: A woman walks on a dry bank of a dam next to a lake that provides water to Islamabad, Pakistan. A Pakistani woman walks on a dry bank that provides water to Islamabad and Rawalpindi cities, at Rawal dam in Islamabad, Pakistan, June 27, 2012. The water level in dams and rivers are low due to dry and hot weather causing water and energy shortage to civilians. [credit: B.K.Bangash]

Overview: In the activities listed below, students will work through analysis of an image and then make connections to literary and informational texts read in English Language Arts. The activities included require students to reference specific texts, however, all activities may be adapted to fit with a number of different texts that touch on the same topics and issues.

Grade level(s): 6 -8

Subject: English Language Arts

Corresponding National Standards: [English Language Arts Common Core Standards](#)

Reading Literature

- Standard 1: Cite evidence to support what the text says explicitly; draw inferences from the text
- Standard 2: Determine the theme or central idea of a text
- Standard 9: Compare and contrast a fictional portrayal and a historical account of the same topic

Reading Informational Text

- Standard 1: Cite evidence to support what the text says explicitly; draw inferences from the text
- Standard 2: Determine the central idea of a text and analyze its development
- Standard 3: Analyze interactions between individuals, events, and ideas in a text
- Standard 8: Trace and evaluate the argument and claims in a text

Writing

- Standard 1: Write arguments focused on discipline-specific content
- Standard 4: Produce clear and coherent writing

Corresponding Global Competency Skills: List which global competency skills are addressed in the study guide (<https://asiasociety.org/education/what-global-competence>)

- Investigate the World
- Recognize Perspectives
- Communicate Ideas
- Take Action

Essential Questions:

- How important is clean water to survival?
- What is the relationship between environment, health, and population?
- How can environment influence culture?
- Why do people move? What are the challenges of forced movement (displacement)?

Activities

Activity One:

Overview:

In this activity, students will analyze an image using the “Analyze a Photograph” protocol created by the National Archives and Records Administration. Through this protocol, students will examine a photo, observe individual

components of the photo, seek to make sense of what they see, and finally determine or question the historical context of the photo. This photo depicts an issue surrounding water scarcity. This activity may be used prior to reading, during reading, or after reading a piece of literature or informational text that focuses on the theme of water scarcity. The activity will enhance student understanding of the challenges facing those with limited access to potable water.

Suggested Time Frame: One 60-minute class period

Materials:

- Chart paper
- Glue or tape
- Markers
- Copies of “Water Well” OVERBook Image or digital copy with electronic projector
- [“Analyze a photograph”](#) handout (from National Archives and Records) for each student

Teacher Steps:

1. Introduce the image titled **Water Well** by either projecting the image on a screen or distributing individual photographs to students. When possible, provide a version of the photo that is in full color. Do not give students the name of the image, as this may inhibit their interpretation of the image.
2. Distribute the **“Analyze a Photograph”** handout created by the National Archives and Records.
3. Instruct students to look at the top first portion of the handout called **“Meet the photo.”** During this portion of the protocol, students encounter the photo for the first time. Instruct students to record what they notice first about the photo. Encourage them to record as much information and detail as possible. Student descriptions may include: “people gathering,” “holding ropes,” “reaching for something,” “dry land at the top,” and “colorful clothing.” Next, instruct students to determine the type of photo. This photo fits the following types: documentary, aerial, action, and candid.

Differentiation: Students learning the English language or students who struggle with vocabulary may encounter difficulty with the terms listed under the “type of photo” section of the handout. Consider projecting the definition of each type of photograph or providing individual students with a handout explaining the different types of photographs.

Instruct student to move to the next portion of the handout titled **“Observe its parts.”** During this portion of the protocol, students are invited to more closely examine the individual components of the photo. In the table provided, students should list the people, objects, and activities they see in the photo. When students have completed the chart, instruct them to use the information in the chart to create a one-sentence summary of the photo.

Sample Chart:

People	Objects	Activities
Men, women, children	Ropes, jugs, large hole, sand, brick inside of the hole, colorful clothing,	Gathering around the large hole, placing ropes inside of the hole, some people appear to be working together

Example of student summary: “There are many people gathered around a large hole and they are holding jugs and ropes.

Differentiation: Students learning the English language may benefit from working with a partner. Consider pairing these students with a peer mentor to complete this portion of the protocol. Consider also providing a word bank of terms with a visual representation of each term to help students learn vocabulary and successfully complete this portion of the activity.

Instruct students to move to the next portion of the handout titled **“Try to make sense of it.”** Provide students with the following caption: “Water Well: Crowding around a communal well in India.” Instruct students to use their observations and the new information provided in the caption to answer the following questions on their individual handouts:

- Who took the photo?
- Where is it from?
- When is it from?
- Why was it taken?

Encourage students to answer the questions to the best of their ability given the provided information. Emphasize that it that they may not be able to answer every question accurately as they have limited information to work with, but that they should ground their inferences in the evidence provided in the photo and caption. For example, while a photo may not explicitly state the date of the photo, encourage students to examine the clothing and technology depicted in the photo to infer the time in which the photo was taken (note that this can be tricky, as technology is not always indicative of time or place).

Sample responses:

- Who took this photo? *Uncertain. It may have been a reporter, journalist, or someone with the means to take an aerial photograph.*
- Where is it from? *India.*
- When is it from? *Uncertain - the photo could be from the past, or it could be present day. The clothing does not give the date away, but the fact that they are using a well makes me think this is from the past.*
- What was happening at the time in history this photo was taken? *It does not state when the photo was taken, but it appears that people were in great need of water. It is possible that there was a drought or some lack of water at the time the photo was taken.*
- Why was it taken? *It does not say who the photographer is, but it is possible that the photo was taken by a journalist or someone from the media. Maybe they were trying to show the challenges facing people in India during this time so that people would be motivated to help.*

Differentiation: Students struggling with the skill of inferring based on evidence may encounter difficulty in this portion of the protocol. Consider working with students in small groups to model the process through a think aloud.

Example of teacher think aloud: *Who took this photo? I am not certain. The caption does not tell me who the photographer is. However, the photo appears to be taken from above. This makes me think that someone either climbed high to take the photo or had some sort of drone that could fly up and take the photo. I know that reporters and journalists sometimes have access to special equipment like ladders and drones. This makes me think that it could have been a reporter or journalist who took the photo.*

Instruct students to move to the final section of the handout titled **“Use it as historical evidence.”** In this portion

of the protocol, students will consider what they learned from the photograph and identify additional information that they need to acquire in order to fully understand the event or topic depicted. Instruct students to record that which they learned from the photo that they could not have learned elsewhere. Sample responses include: "I was able to learn that there was a drought at one time in India. The picture helped me understand just how difficult that task was for people because it shows the large crowd and long wait many people had to endure." Next, ask students to discuss what they do not know or what information they are missing. Prompt students to consider *where* they could find that information (documents, photos, journals, etc.). Instruct students to record the additional information they want to obtain in order to better understand the event depicted and where they could look to find that information.

Differentiation: Some students may struggle with the last question about finding additional resources to help them better understand the event depicted in the photo. Encourage these students to revisit questions about the who, what, when, where, why, and how of the photograph. When discussing these questions and a student is unable to determine an answer, instruct the student to jot that question down and then consider where he or she could look to uncover the answer to that question.

Instruct students to consider the informational and literary texts they have been reading in class. Instruct students to discuss the connections in small groups and record their connections on notebook paper. This will be used as an assessment of student understanding of the image and its relationship to class. Next, have students share out their group's connections with the entire class. On a sheet of chart paper or poster paper, paste a copy of the image discussed in the activity. Under the image, record the image-to-text connections students shared during the large group discussion. The chart paper/poster may remain in the classroom throughout the unit to help ground students in analysis of issues surrounding water as they continue to build their understanding through reading different texts.

Extend the learning:

- Conduct research on access to water in your local community. Research where your drinking water comes from, who controls the access to that resource, and the potential dangers threatening that resource.
- Invite an engineer to speak to students about the construction of a well. Ask the engineer to discuss the components of construction, maintenance, repair, and the benefits/drawbacks of using a well for water, rather than water provided through a system of pipes.

Activity Two:

Overview:

In this activity, students will connect a passage from the novel *A Long Walk to Water* to the image titled **Dry Lake** from the OverBook collection. Students will begin by examining the image and determining, in a general sense, what is depicted. Next, students will be invited to consider how the photo relates to themes, challenges, or characters described in *A Long Walk to Water*. Students will choose a passage from the novel that fits with the photo. Students will work to explain the connection between the photo and the passage from the novel.

Suggested Time Frame: One 60-minute class period

Materials:

- Copy of "Dry Lake" OVERBook Image
- [A Long Walk to Water](#) by Linda Sue Park

- Notebook paper
- Chart paper or digital response platform
- [Chalk Talk](#) Protocol
- [Visual Thinking Strategy](#) questions

Teacher steps:

1. Instruct students to take out their copy of *A Long Walk to Water* novel. Tell students to turn to page 26 and follow along on the page as you read a passage aloud. Set a purpose for reading by telling students to pay close attention to Nya’s environment and her experience in obtaining water. Read Nya’s passage (pages 26-27):

“There was a big lake three days’ walk from Nya’s village. Every year when the rains stopped and the pond near the village dried up, Nya’s family moved from their home to a camp near the big lake.

Nya’s family did not live by the lake all year round because of the fighting. Her tribe, the Nuer, often fought with the rival Dinka tribe over the land surrounding the lake. Men and boys were hurt and even killed when the two groups clashed. So Nya and the rest of her village lived at the lake only during the five months of the dry season, when both tribes were so busy struggling for survival that the fighting occurred far less often.

Like the pond back home, the lake was dried up. But because it was much bigger than the pond, the clay of the lakebed still held water.

Nya’s job at the lake camp was the same as at home: to fetch water. With her hands, she would dig a hole in the damp clay of the lakebed. She kept digging, scooping out handfuls of clay until the hole was as deep as her arm was long. The clay got wetter as she dug, until, at last, water began to seep into the bottom.

The water that filled the hole was filthy, more mud than liquid. It seeped in so slowly that it took a long time to collect even a few gourdsful. Nya would crouch by the hole, waiting.

Waiting for water. Here, for hours at a time. And every day for five long months, until the rains came and she and her family could return home.”

2. Upon completing the read aloud, instruct students to conduct a “Think, Pair, Share” in which they partner with someone sitting near to them and discuss the two questions posed as the purpose for reading:
 - What is the environment like where Nya lives?
 - Describe Nya’s experience getting water.

Call on students to share out with the whole class. Tell students to hold on to those reflections from the “Think, Pair, Share” activity as they move into the image analysis.

3. Place students in small groups of 4-5. Project the image “Dry Lake” using a digital projector or distribute paper copies for students to examine. Instruct students to engage in [a “Chalk Talk”](#) in which they silently answer the following [Visual Thinking Strategy](#) questions on a large sheet of paper with their small group partners.
 - What is going on in this picture?
 - What do you see that makes you say that?

- What more can we find?

Consider having students carry out their chalk talk on a digital platform if you have technology in your classroom that can facilitate the chalk talk electronically.

Differentiation: For students who may struggle with analyzing the image, consider providing sentence starters for each of the Visual Thinking Strategy questions. Examples include: "One thing I notice in the picture is....this makes me think that ... is happening." and "I see... which reminds me of ... so I think ... is happening."

4. Next, instruct students to think back to the passage from *A Long Walk to Water* that was read at the start of class. Instruct students to discuss how the image may relate to the passage. After giving students 2-3 minutes to discuss, call on students to share their group's reflections.
5. Introduce the activity's assessment: a perspective-writing piece. Explain to students that they will have to "step into the scene" depicted in the "Dry Lake" image and write a short narrative from Nya's perspective. Project the following prompt on the board or print it on paper to distribute to students.
 - Imagine that the girl in the photograph is Nya from *A Long Walk to Water*. Write a two-paragraph narrative from Nya's perspective (third person perspective) in which you explain: (1) what she is doing, (2) what she sees, and (3) what she feels. Be certain to make specific connections to what you have read about Nya's story in *A Long Walk to Water*. You must include at least two direct quotes from the novel.
6. Wrap up: Call on students to share their narratives written from Nya's perspective.
7. Extend the learning:
 - Research well-drilling programs like "Water for South Sudan" created by Salva. Investigate the impact of these programs on the communities in which they are implemented. Focus specifically on the impact on girls and women in those communities. Next, Design a service project in which you raise funds to donate to an organization such as this.

Activity Three:

Overview:

This activity includes two parts: a reading informational text part, and a visual analysis part. The activity may be used to build background knowledge on issues surrounding water pollution around the world and to enhance student understanding of a novel or piece of literature dealing with these issues. The extension activity in which students connect to a novel/other piece of literature may be skipped or altered to fit the needs of your unit of study.

Suggested Time Frame: One 60-minute class period.

Materials

- ["For Many of the World's Poor, Drinking Water Can Kill"](#) Article
- [Text Dependent/Quiz Questions](#)
- "Man Bathing" Image from The OverBook
- Zoomed in quadrants of "Man Bathing" image from The OVERBook or digital projector to display quadrants of the image.

- Laptop, tablet, or device
- [ThingLink](#) account
- [Think, Pair, Share](#) protocol

Teacher Steps:

1. Tell students that they will be conducting a close reading of a text connected to the unit of study in class. Distribute the article titled **“For many of the world’s poor, drinking water can kill”** from the NewsELA website. You must create a free account at NewsELA.com to access this resource.
2. Instruct students to complete a **close reading** of the text in which they:
 - a. Annotate the text
 - Underline important ideas
 - Circle unknown words - look them up in a dictionary
 - ? - Write questions in the margins
 - ! - Surprising information
 - Write comments and connections to unit themes and essential questions in the margins
 - b. Summarize each subsection of text
 - Answer the 5Ws and H questions - Who, what, when, where, why, and how
 - c. Create an objective summary of the text as a whole by reviewing the summaries of each subsection, and looking for trends and repeated information to determine the central idea of the text. Guidelines for objective summary:
 - State the central idea of the text as a whole.
 - Omit excessive supporting details.
 - Omit personal opinion and bias.
 - 2- 3 sentences maximum.

Differentiation: Some students who experience difficulty in reading comprehension may struggle to complete the additional text annotations. Consider minimizing the number of annotations required of those students or, if it is better for the student, eliminating the annotations altogether. Instruct these students to focus on the summaries of each subsection and determining the central idea of the text as a whole. Consider pulling students for a small group read aloud in order to scaffold student comprehension through guided discussion and intentional questioning.

Differentiation: Students who excel in reading comprehension may find the summaries of each subsection of text repetitive and unnecessary in determining the central idea of the text. Allow these students to try summarizing the text as a whole without summarizing individual subsections.

3. Distribute the text dependent questions for the article and instruct students to complete. This may be done independently or in small groups. After providing students with ample work time, bring the class back together and talk through the correct answers and any student misunderstanding.

Question 1:

Read these sentences from the article: "When drinking bad water sometimes children can die, so I worry because (my children could) suffer," Petronella told Derek Watson, the film's director. "I, myself, could suffer from drinking bad water."

Which sentence from the article provides the BEST evidence of this statement?

- A. Only 2.5 percent is freshwater and of that small amount, 70 percent is frozen in the polar ice caps.
- B. The remaining fresh water can mostly be found deep underground.

C. Without a well system it is very hard to acquire fresh water.

D. About 3.4 million people die each year from water-related disease, according to Water.org.

Question 2:

According to the information in the article, why is diarrhea a particularly dangerous illness, especially in developing countries?

A. It causes the body to lose fluids and salts, which are necessary to survival.

B. It kills more children every year than HIV, tuberculosis and malaria combined.

C. People usually get diarrhea when they least expect it, for example, on a vacation.

D. Sometimes diarrhea occurs after eating in a strange place, resulting in a bad stomach ache.

Question 3:

What is the MOST LIKELY reason that diarrhea is now under control in Petronella's village?

A. The World Health Organization provides medicines to the village.

B. Petronella's village now has a fresh-water well from which they get their water.

C. Journalists have brought the problem to the attention of the United Nations.

D. The villagers celebrate World Water Day, helping them to focus on the importance of clean water.

Question 4:

Why is it surprising that diarrheal disease kills more children every year than HIV/AIDS, tuberculosis, and malaria combined?

A. It is a completely preventable disease.

B. The other diseases are more dangerous.

C. People usually get it while on vacation and can take medicines to get better.

D. It occurs more often in developing countries where children are used to drinking polluted water.

Question 5:

According to the information in the article, why is it difficult to get fresh water?

A. Most of Earth's freshwater is frozen in the polar ice caps and the rest can be found mostly deep underground.

B. Most of Earth's fresh water is contaminated and therefore unfit to use.

C. Most people in developing countries don't live near lakes or rivers.

D. Nearly all the water on Earth is salt water, which is not drinkable.

Differentiation: Consider pairing students who struggle with reading comprehension with a peer tutor who excels in these skills or pulling a small group to work with during this time. While working in a small group, conduct a think aloud to demonstrate the process involved in arriving at the correct answer.

4. Next, introduce the "Man Bathing" image by providing students with a paper copy, or projecting it digitally. Present a **small portion/zoomed in quadrant** of the image. Ask students to examine the zoomed-in portion of the image and answer the following questions:
 - Observe: What do you see in the image?
 - Reflect: What do you think is going on? What parts of the image make you think that?
 - Question: Generate three questions that you have about the zoomed-in portion of the image.
5. Next, present a larger portion of the image (not the image in its entirety). Have students repeat the

same observe-reflect-question analysis as before to see how their understanding of the image has changed.

- Observe: What do you see in the image?
 - Reflect: What do you think is going on now that you have a broader view of the image? What parts of the image make you think that?
 - Question: Generate two questions that you have about the image.
6. Then, present the image in its entirety. Instruct students to repeat the observe-reflect-question analysis now that they have the whole image.
- Observe: What do you see in the image?
 - Reflect: What do you think is going on now that you have the entire image? What parts of the image make you think that?
 - Question: Generate two questions that you still have about the image.
7. Next, tell students that they will work to make connections to the informational text titled **“For many of the world’s poor, drinking water can kill.”** Prompt students to consider the following question and record their answer on notebook paper:
- How may the polluted water and the environment in which the man in the image lives impact his health? Explain your answer by citing specific examples of facts, statistics, and evidence from the text.

Example: I can infer that there is likely some sort of pollution in the water in which the man in the image is bathing because there is a lot of trash/debris surrounding him. This could mean that he is exposed to bacteria and diseases. In the texts it states that 3.4 million people die each year from water-related diseases and that contaminated water kills close to 5000 children each year. It is not clear whether or not the man also drinks this water, but it is clear that he is being exposed to potentially polluted water.

Differentiation: Some students may struggle to make the connection between the text and the image. Consider prompting these students with scaffolded lines of questioning. Example: What is something that the text and the image both have in common? (Water Based on what you see in the picture, what kind of water does the man in the image have access to? (dirty/polluted water) Based on what you read in the text about polluted water, what health risks may the man in the image experience? (diseases/diarrhea/dehydration).

8. Finally, introduce the activity’s assessment: Instruct students to create a [ThingLink](#) for the “Man Bathing” image. ThingLink is a platform that enables students to turn an image into an interactive graphic. Students will need to create a free account at www.thinglink.com.
- Student ThingLink Assessment requirements: include five facts or statistics from the article that demonstrate the ways in which environment, and specifically polluted water, can impact health.

Differentiation: Some students may benefit from seeing an example of a ThingLink interactive image prior to being asked to complete their own. Consider providing students with several examples of other ThingLink interactive prior to beginning the work time.

9. Extension: Instruct students to add the experiences of Nya from the novel *A Long Walk to Water* by

Linda Sue Park to their interactive ThingLink image. Require students to cite passages from the text that reflect the realities facing populations with polluted drinking water. Example of appropriate passages can be found on pages 39 and 45 of *A Long Walk to Water*. This portion of the novel discusses explains the sickness Nya's younger sister, Akeer, acquired from the unclean water she drank.

Passage 1, page 39:

"Nya knew many people who suffered from the same illness. First cramps and stomach ache, then diarrhea. Sometimes fever, too. Most of the adults and older children who fell ill recovered at least enough to work again, although they might continue to suffer off and on for years. For the elderly and for small children, the illness could be dangerous. Unable to hold anything in their systems, many of them starved to death, even with food right in front of them."

Passage 2, page 45:

"The nurse, a white woman, was talking to Nya's mother. "Her sickness came from the water," the nurse explained. "She should drink only good clean water. If the water is dirty, you should boil it for a count of two hundred before she drinks it." Nya's mother nodded that she understood, but Nya could see the worry in her eyes. The water from the holes in the lakebed could be collected only in tiny amounts. If her mother tried to boil such a small amount, the pot would be dry long before they could count to two hundred."

Bibliography

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"Analyze a Photograph" handout was created by the National Archives and Records Administration and is in the public domain. The handout may be accessed [here](#).

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ThingLink, <https://www.thinglink.com>
Annotate images and videos.