



EXPEDITIONARY  
LEARNING

# Grade 3: Module 4: Unit 2: Overview



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## Unit 2: Reading and Research: Challenges of Water around the World

For this unit, students will build their knowledge of the challenges of access, pollution, and demands on water. Students first will research each challenge as a class, finding the key information about the particular challenge as they read their central text, *One Well: The Story of Water on Earth*. Students will answer text-dependent questions throughout their reading to ensure that they are able to use specific details and information from the text. The first half of this Unit, in effect, serves as a guided practice for research and builds students' knowledge about each challenge before they study one more in-depth. Students will continue to build their vocabulary with a focus on learning words from context. In the mid-unit assessment, students will demonstrate their ability to ask and answer questions based on an informational text in preparation for their research project in the second half of the unit. For the second half of the unit, students will work with

greater independence to conduct a short research project to research in more depth about one of the challenges regarding water: access, pollution, and demands on water. Students will take notes as they read, determining the most important details about this particular challenge. Students will work in partnerships, or with "research buddies." Although they will read independently, they will have this peer to support them through the process. For the end of unit assessment, students will write a two-paragraph, on-demand informational piece about the challenges of water: One paragraph that synthesizes all three of the challenges regarding water and a second paragraph that goes into more detail to inform the reader about the specific challenge the student researched. This on-demand writing also will serve as a scaffold for their students' public service announcement (PSA), the final performance task that students will complete in Unit 3.

### Guiding Questions And Big Ideas

- **Where does our water come from?**
- **What happens when people don't have access to clean water? (Unit 2 and 3 specific question)**
- **How do writers use evidence from text to strengthen their message?**
- *Writers support their points of view with reasons, facts, and details.*
- *Water is a natural resource that every living thing needs.*
- *Access to clean freshwater affects where and how people live.*
- *Water is a finite resource.*



Mid-Unit 2 Assessment	<p><b>Asking and Answering Questions about Having Enough Clean Water for Everyone</b></p> <p>Students will demonstrate their ability to ask and answer questions based on informational text in preparation for their research project in the second half of the unit. After previewing a text from <i>One Well: The Story of Water on Earth</i>, students will ask questions that they think can be answered by the text. They will then read the text, recording key details and asking additional questions. Students will also answer text-dependent questions. This assessment centers on standards NYSP12 ELA CCLS RI.3.1 and RI.3.8.</p>
End of Unit 2 Assessment	<p><b>On-Demand Writing to Inform Your Reader about the Challenges to Having Enough Clean Water for Everyone</b></p> <p>In this end of unit assessment, students will write two paragraphs informing their reader about what they have learned from their research project around challenges of demands on water, access to water, and pollution in water. Students will respond to the following prompt: “After researching all the challenges people face to have clean water, write a two-paragraph essay informing your reader about these challenges. Your first paragraph should inform your reader about each of the three challenges of water that we have researched together: access, pollution, and water usage. Your second paragraph should inform your reader with more details about the one challenge you researched in more detail. Be sure to use key facts and details from your research for each of these paragraphs. Use your note-catchers to support your writing.” This writing will serve as an important scaffold to students’ PSA announcements at the end of the module. This assessment centers on standards NYSP12 ELA CCLS W.3.2, and W.3.4.</p>



### Content Connections

This module is designed to address English Language Arts standards. However, the module intentionally incorporates Social Studies and Science content that many teachers may be teaching during other parts of the day. These intentional connections are described below.

**Big ideas and guiding questions are informed by the New York State Common Core K-8 Social Studies Framework:**

**<http://engageny.org/sites/default/files/resource/attachments/ss-framework-k-8.pdf>**

**NYS Social Studies Core Curriculum:**

- 3.10 “People living in communities around the world depend on, adapt to, and modify their physical environments in different ways.” (p. 48)

**NYS Science:**

- 3.7.a “The earth comprises continents, oceans, and other physical features, all of which help define distinct geographic regions around the world.”

### Central Texts

1. Rochelle Strauss, *One Well: The Story of Water on Earth* (Tonawanda, NY: Kids Can Press, 2007), ISBN: 978-1-55337-954-6.



**This unit is approximately 2 weeks or 11 sessions of instruction.**

Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
<b>Lesson 1</b>	Gathering, Documenting, and Sorting Information: Determining Challenges Related to Having Clean Water for Everyone	<ul style="list-style-type: none"> <li>I can recall information that is important to a topic. (W.3.8)</li> <li>I can document what I learn about a topic by taking notes. (W.3.8)</li> <li>I can sort my notes into categories. (W.3.8)</li> </ul>	<ul style="list-style-type: none"> <li>I can find specific details in images that highlight a challenge to having clean water for everyone.</li> <li>I can take notes from texts that highlight a challenge to having clean water for everyone.</li> <li>I can sort my notes into categories of three specific challenges.</li> </ul>	<ul style="list-style-type: none"> <li>Challenges to Having Clean Water recording form</li> </ul>	<ul style="list-style-type: none"> <li>Gallery Walk protocol</li> <li>What We Want People to Know about Water on Earth</li> </ul>
<b>Lesson 2</b>	Writing to Teach a Reader about Water on Earth; Laying the Foundation for Water Challenges Research	<ul style="list-style-type: none"> <li>I can write informative/explanatory texts that convey ideas and information clearly. (W.3.2)               <ol style="list-style-type: none"> <li>I can write an informative/explanatory text that has a clear topic.</li> <li>I can group supporting facts together about a topic in an informative/explanatory text using both text and illustrations.</li> <li>I can develop the topic with facts, definitions, and details.</li> <li>I can use linking words and phrases to connect ideas within categories of information. (e.g., also, another, and, more, but)</li> <li>I can construct a closure on the topic of an informative/explanatory text.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>I can write a paragraph that teaches my reader about water on earth.</li> <li>I can identify the most important information to use in my paragraph.</li> </ul>	<ul style="list-style-type: none"> <li>Water on Earth paragraph</li> </ul>	<ul style="list-style-type: none"> <li>What We Want People to Know about Water on Earth</li> </ul>



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
<b>Lesson 3</b>	Asking and Answering Questions about <i>One Well</i> , “People at the Well” (Pages 16 and 17), Part 1	<ul style="list-style-type: none"> <li>I can ask questions to deepen my understanding of an informational text. (RI.3.1)</li> <li>I can answer questions using specific details from an informational text. (RI.3.1)</li> <li>I can document what I learn about a topic by taking notes. (W.3.8)</li> </ul>	<ul style="list-style-type: none"> <li>I can ask questions to deepen my understanding of “People at the Well.”</li> <li>I can answer questions using specific details from “People at the Well.”</li> <li>I can document my learning by taking notes about how people use water.</li> </ul>	<ul style="list-style-type: none"> <li>Asking and Answering Questions recording form</li> </ul>	<ul style="list-style-type: none"> <li>Power Words/Water Words</li> <li>Researching Text</li> </ul>
<b>Lesson 4</b>	Asking and Answering Questions about <i>One Well</i> , “People at the Well” (Pages 16 and 17), Part 2	<ul style="list-style-type: none"> <li>I can ask questions to deepen my understanding of an informational text. (RI.3.1)</li> <li>I can answer questions using specific details from an informational text. (RI.3.1)</li> <li>I can document what I learn about a topic by taking notes. (W.3.8)</li> </ul>	<ul style="list-style-type: none"> <li>I can ask questions to deepen my understanding of “People at the Well.”</li> <li>I can answer questions using specific details from “People at the Well.”</li> <li>I can document my learning by taking notes about how people use water.</li> </ul>	<ul style="list-style-type: none"> <li>Student copies of Asking and Answering Questions recording form—with questions (from Lesson 3)</li> <li>Back-to-Back, Front-to-Front protocol (based on homework from Lesson 3)</li> </ul>	<ul style="list-style-type: none"> <li>Back-to-Back, Front-to-Front protocol</li> <li>Researching Text</li> <li>Demand for Water</li> </ul>
<b>Lesson 5</b>	Asking and Answering Questions about <i>One Well</i> , “Access to the Well” (Pages 20 and 21)	<ul style="list-style-type: none"> <li>I can ask questions to deepen my understanding of an informational text. (RI.3.1)</li> <li>I can answer questions using specific details from an informational text. (RI.3.1)</li> <li>I can document what I learn about a topic by taking notes. (W.3.8)</li> </ul>	<ul style="list-style-type: none"> <li>I can ask questions to deepen my understanding of “Access to the Well.”</li> <li>I can answer questions using specific details from “Access to the Well.”</li> <li>I can document my learning by taking notes about how people access water.</li> </ul>	<ul style="list-style-type: none"> <li>Back-to-Back, Front-to-Front protocol</li> <li>Asking and Answering Questions recording form</li> </ul>	<ul style="list-style-type: none"> <li>Back-to-Back, Front-to-Front protocol</li> <li>Researching Text</li> <li>Access to Water</li> </ul>



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
<b>Lesson 6</b>	Asking and Answering Questions about <i>One Well</i> , “Pollution in the Well” (Pages 24 and 25)	<ul style="list-style-type: none"> <li>I can ask questions to deepen my understanding of an informational text. (RI.3.1)</li> <li>I can answer questions using specific details from an informational text. (RI.3.1)</li> <li>I can document what I learn about a topic by taking notes. (W.3.8)</li> </ul>	<ul style="list-style-type: none"> <li>I can ask questions to deepen my understanding of “Pollution in the Well.”</li> <li>I can answer questions using specific details from “Pollution in the Well.”</li> <li>I can document my learning by taking notes about water pollution.</li> </ul>	<ul style="list-style-type: none"> <li>Asking and Answering Questions recording form</li> <li>Homework from Lesson 5</li> </ul>	<ul style="list-style-type: none"> <li>Power Word/Water Words</li> <li>Water Challenges: Pollution</li> </ul>
<b>Lesson 7</b>	Mid-Unit Assessment: Asking and Answering Questions about Having Enough Clean Water for Everyone	<ul style="list-style-type: none"> <li>I can ask questions to deepen my understanding of an informational text. (RI.3.1)</li> <li>I can answer questions using specific details from an informational text. (RI.3.1)</li> <li>I can document what I learn about a topic by taking notes. (W.3.8)</li> </ul>	<ul style="list-style-type: none"> <li>I can ask questions to deepen my understanding of “Demands on the Well.”</li> <li>I can answer questions using specific details from “Demands on the Well.”</li> <li>I can document my learning by taking notes about demands on water.</li> </ul>	<ul style="list-style-type: none"> <li>Homework A: Questions about “Pollution in the Well”</li> <li>Homework B: Visual of one thing to do about water pollution</li> <li>Mid-Unit 2 Assessment: Asking and Answering Questions about Having Enough Clean Water for Everyone</li> <li>Tracking My Progress, Mid-Unit 2 recording form</li> </ul>	
<b>Lesson 8</b>	Independent Research: The Challenges to Having Enough Clean Water for Everyone	<ul style="list-style-type: none"> <li>I can conduct a research project to become knowledgeable about a topic. (W.3.7)</li> <li>I can determine the main idea of an informational text. (W.3.2)</li> <li>I can retell key ideas from an informational text. (W.3.2)</li> </ul>	<ul style="list-style-type: none"> <li>I can ask and answer questions about the text I choose in order to build my knowledge about one specific challenge related to having enough clean water for everyone.</li> <li>I can identify key facts and details about my challenge topic.</li> </ul>	<ul style="list-style-type: none"> <li>Asking and Answering Questions recording form, with text attached</li> </ul>	



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
<b>Lesson 9</b>	Continued Independent Research: The Challenges to Having Enough Clean Water for Everyone	<ul style="list-style-type: none"> <li>I can conduct a research project to become knowledgeable about a topic. (W.3.7)</li> <li>I can determine the main idea of an informational text. (W.3.2)</li> <li>I can retell key ideas from an informational text. (W.3.2)</li> <li>I can use a variety of strategies to determine the meaning of words and phrases. (L.3.4)</li> <li>I can use resource materials (glossaries and dictionaries) to help me determine the meaning of key words and phrases.</li> </ul>	<ul style="list-style-type: none"> <li>I can determine the meaning of unknown words using context clues and a dictionary.</li> <li>I can ask and answer questions about the text I choose in order to build my knowledge about one specific challenge related to having enough clean water for everyone.</li> <li>I can identify key facts and details about my challenge topic.</li> </ul>	<ul style="list-style-type: none"> <li>Asking and Answering Questions recording form, with text attached</li> </ul>	<ul style="list-style-type: none"> <li>Gallery Walk protocol</li> <li>Pollution, Demand for Water, and Access to Water</li> <li>Water Challenges</li> </ul>
<b>Lesson 10</b>	Completing Independent Research: The Challenges to Having Enough Clean Water for Everyone	<ul style="list-style-type: none"> <li>I can conduct a research project to become knowledgeable about a topic. (W.3.7)</li> <li>I can determine the main idea of an informational text. (W.3.2)</li> <li>I can retell key ideas from an informational text. (W.3.2)</li> </ul>	<ul style="list-style-type: none"> <li>I can ask and answer questions about the text I choose in order to build my knowledge about one specific challenge related to having enough clean water for everyone.</li> <li>I can identify key facts and details about my challenge topic.</li> </ul>	<ul style="list-style-type: none"> <li>Vocabulary homework (from Lesson 9)</li> <li>Asking and Answering Questions recording form, with text attached</li> </ul>	





Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
<b>Lesson 11</b>	End of Unit Assessment: On-Demand Writing to Inform Your Reader about the Challenges to Having Enough Clean Water for Everyone	<ul style="list-style-type: none"> <li>I can write informative/explanatory texts that convey ideas and information clearly. (W.3.2)               <ol style="list-style-type: none"> <li>I can write an informative/explanatory text that has a clear topic.</li> <li>I can develop the topic with facts, definitions, and details.</li> <li>I can use linking words and phrases to connect ideas within categories of information. (e.g., also, another, and, more, but)</li> <li>I can construct a closure on the topic of an informative/explanatory text.</li> </ol> </li> <li>With support from peers and adults, I can use the writing process to plan, revise, and edit my writing. (W.3.5)</li> </ul>	<ul style="list-style-type: none"> <li>I can write a two-paragraph essay to inform my reader about the challenges of having enough clean water for everyone.</li> <li>I can use a planning page and my note-catchers to help me organize my information clearly.</li> </ul>	<ul style="list-style-type: none"> <li>End of Unit 2 Assessment</li> <li>Tracking My Progress, End of Unit 2 recording form</li> </ul>	<ul style="list-style-type: none"> <li>Water Challenges: Pollution, Demand for Water, Access to Water</li> </ul>



Optional: Experts, Fieldwork, And Service

**Experts:**

- Invite a person from the Department of Water to come into the classroom and discuss with the students the efforts being made to keep New York's water accessible, clean, and conserved.
- Invite members of a water conservation group to come in and share their work to preserve local water sources.

**Fieldwork:**

- Go to a water treatment center and investigate how water is cleaned.
- Go to a local stream or river with an expert naturalist to explore how pollution has affected a local site.

**Service:**

- Adopt a local stream.
- Create water issue fliers about each challenge to water for students to distribute locally at various sites: grocery stores, gas stations, libraries, etc.

Optional: Extensions

- *One Well* provides excellent opportunities for math extensions and connections. Preview Lessons 3 and 5 and consider doing additional work on percentages, fractions, large numbers, measurements, and/or graph reading during other parts of the day.
- Work with your school's media specialist to plan lessons to guide students in finding additional text or web-based materials to support their research (Lessons 8–10).



### Independent Research

In this unit, students research the challenges to having clean water: They begin as a class, and then focus on one specific challenge. The expectation for the second half of the unit is that students will now apply the reading skills they have worked on all year, with greater independence. Students will use the same note-catcher throughout the unit to record the key facts and details that build their knowledge about their particular topic. Students conduct the research independently but have a buddy to work with as support (as they did when reading *Peter Pan* in Module 3A). Students will choose a particular challenge about water to research; be strategic in how students are placed in research groups and then as buddies with those research groups. As in Module 3A, strategically placing students in more homogenous partnerships will support their reading process of finding the key facts and details. At the end of each research lesson, students gather with all their peers who are studying the same challenge in order to share out and discuss their findings.

Conferring will be important in these lessons. Consider conferring with research groups throughout the lessons. This ensures that you can check for understanding among the partnerships and address and clarify any questions students might have about vocabulary or the content of the articles they are reading. Place all research groups studying the same challenge in the same area of the classroom.

### Research Resources

Students will read a variety of informational texts as they research their topic of access, demands on water, or pollution. These texts will be provided to students in a folder about their topic. Review Lessons 8–10 well in advance to support the gathering of additional texts. Use the texts on the Recommended Text List and the website resources listed in the Lesson 8 supporting materials to supplement the texts provided. While there are texts provided in the supporting documents (Lesson 8), students will need access to a wide variety of texts: See your school or local library and the librarian to gather additional texts.



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## Grade 3: Module 4: Unit 2:

# Recommended Texts



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The list below includes texts with a range of Lexile® text measures about water usage and challenges. This provides appropriate independent reading for each student to help build content knowledge about the topic.

It is imperative that students read a high volume of texts at their reading level in order to continue to build the academic vocabulary and fluency demanded by the CCLS.

**Common Core Band Level Text Difficulty Ranges:**

(As provided in the NYSED Passage Selection Guidelines for Assessing CCSS ELA)

- Grade 2–3: 420–820L
- Grade 4–5: 740–1010L
- Grade 6–8: 925–1185L

Where possible, texts in languages other than English are also provided. Texts are categorized into three Lexile levels that correspond to Common Core Bands: below grade band, within band, and above band. Note, however, that Lexile® measures are just one indicator of text complexity, and teachers must use their professional judgment and consider qualitative factors as well. For more information, see Appendix 1 of the Common Core State Standards.

Title	Author And Illustrator	Text Type	Lexile Measure
<b>Lexile text measures below band level (below 420L)</b>			
<i>The Water Hole</i>	Graeme Base (author)	Literature	230
<i>We Need Water</i>	Charles Ghigna (author)	Literature/Informational	260
<i>Drinking Water</i>	Helen Frost (author)	Informational	275
<i>Water Hole Waiting</i>	Jane Kurtz (author)	Literature	280
<i>Living Things Need Water</i>	Bobbie Kalman (author)	Informational	390



Title	Author And Illustrator	Text Type	Lexile Measure
<b>Lexile text measures within band level (420-820L)</b>			
<i>Watch over Our Water</i>	Lisa Bullard (author)	Informational	540
<i>Water for Everyone</i>	Sally Morgan (author)	Informational	680
<i>Do You Know Where Your Water Has Been?</i>	Kelly Regan Barnhill (author)	Informational	700
<i>Water Pollution</i>	Melanie Ostopowich (author)	Informational	750*
<i>Rivers in Danger</i>	Polly Goodman (author)	Informational	790
<b>Lexile text measures above band level (over 820L)</b>			
<i>Water Supply</i>	Rebecca Hunter (author)	Informational	850*
<i>Wonderful Water</i>	Helen Lanz (author)	Informational	860*
<i>Water for Everyone</i>	Sarah Leveté (author)	Informational	880
<i>Our World of Water: Children and Water around the World</i>	Beatrice Hollyer (author)	Informational	890
<i>Clean Water</i>	Beth Geiger (author)	Informational	930
<i>Water Supply</i>	Cheryl Jakab (author)	Informational	975*
<i>Not a Drop to Drink: Water for a Thirsty World</i>	Michael Burgan (author)	Informational	1130
<i>A Cool Drink of Water</i>	Barbara Kerley (author)	Informational	NP

\*Lexile based on a conversion from Accelerated Reading level.

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# **Grade 3: Module 4: Unit 2: Lesson 1**

## **Gathering, Documenting, and Sorting Information: Determining Challenges Related to Having Clean Water for Everyone**



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)	
I can recall information that is important to a topic. (W.3.8) I can document what I learn about a topic by taking notes. (W.3.8) I can sort my notes into categories. (W.3.8)	
Supporting Learning Targets	Ongoing Assessment
<ul style="list-style-type: none"><li>• I can find specific details in images that highlight a challenge to having clean water for everyone.</li><li>• I can take notes from texts that highlight a challenge to having clean water for everyone.</li><li>• I can sort my notes into categories of three specific challenges.</li></ul>	<ul style="list-style-type: none"><li>• Challenges to Having Clean Water recording form</li></ul>





Agenda	Teaching Notes
<ol style="list-style-type: none"><li>1. Opening<ol style="list-style-type: none"><li>A. Engaging the Reader: Quote about the Need for Clean Water for Everyone (8 minutes)</li><li>B. Unpacking Learning Targets (2 minutes)</li></ol></li><li>2. Work Time<ol style="list-style-type: none"><li>A. Water Fact Frenzy (15 minutes)</li><li>B. Gallery Walk and Note-taking (20 minutes)</li><li>C. Sharing Notes and Sorting into Challenges (10 minutes)</li></ol></li><li>3. Closing and Assessment<ol style="list-style-type: none"><li>A. Exit Ticket: What Surprised You Today about the Challenges to Having Clean Water for Everyone? (5 minutes)</li></ol></li><li>4. Homework<ol style="list-style-type: none"><li>A. Share with someone in your family the three challenges to having clean water that you learned about today. Tell them what was surprising to you and what questions you have about clean water now.</li><li>B. Continue reading in your independent reading book and complete your Independent Reading recording form.</li></ol></li></ol>	<ul style="list-style-type: none"><li>• In advance: As with previous Gallery Walks, print and post the water challenge images around the room. See supporting materials for some images; feel free to collect other images from water texts in the classroom or on the internet.</li><li>• Students should be familiar with Gallery Walks from previous modules. The purpose is to foster curiosity and promote engagement in the topic. For this Gallery Walk, the goal is for students to build awareness that not everyone in the world gets their water from a faucet. The photos are designed to elicit a sense of the importance of water and build students' curiosity about why people have to get water from sources like a puddle or swamp.</li><li>• Lessons 1 and 2 lay the groundwork for students to begin to use their skills reading informational texts to conduct research about the challenges to having clean water. In this lesson, students build their curiosity about how having clean water might be a challenge for people in the world. Additionally, students think about what they know about water to ground the beginning of their inquiry. In Lesson 2, students will put their knowledge into an informative paragraph. This writing further grounds and supports the research they will do throughout the unit.</li></ul>



Lesson Vocabulary	Materials
take for granted, figure of speech, frenzy, high five, demand, access/accessible, pollution	<ul style="list-style-type: none"><li>• Water quote (one for display and one per pair of students)</li><li>• Document camera</li><li>• Equity sticks</li><li>• Index cards (10 per triad)</li><li>• Sample Fact Frenzy facts (for teacher reference)</li><li>• Paper clips (a few dozen)</li><li>• Challenges to Having Clean Water recording form (one per student)</li><li>• Gallery Walk images</li><li>• Exit ticket (one per student)</li><li>• Independent Reading recording form (one per student)</li></ul>



Opening	Meeting Students' Needs
<p><b>A. Engaging the Reader: Quote about the Need for Clean Water for Everyone (8 minutes)</b></p> <ul style="list-style-type: none"> <li>Gather students in the whole group area. Display the <b>water quote</b> on a <b>document camera</b>. Ask students to partner with someone next to them. Read the quote aloud, then distribute a copy of the quote to each pair. Ask students to reread the quote aloud together.</li> <li>Ask:             <ul style="list-style-type: none"> <li>* “What is this author trying to tell us about water?”</li> </ul> </li> <li>Give partners a minute or two to share their thinking with each other.</li> <li>Then, using <b>equity sticks</b> or by cold calling, invite a few students to share their thinking. Listen for students to talk about how there are a billion people without clean water, or that water is really important, but not everyone can get clean water. Linger on the word “billion” and write it out on the quote, showing kids how many zeros that makes.</li> <li>Reread the sentence “It is easy to take something for granted when it is always there.” Circle or highlight the phrase “take something for granted.” Ask:             <ul style="list-style-type: none"> <li>* “What do you think <i>take for granted</i> means?”</li> </ul> </li> <li>Give students a moment to think and talk to someone next to them.</li> <li>Then invite students to share their thinking. Listen for them to say something like: “It means we don’t appreciate something.” Define this as a <i>figure of speech</i>. Give students a definition of this phrase if they don’t know what it means. (<i>Take for granted</i>: to use, accept, or treat in a careless or indifferent manner.)</li> <li>Direct students to read this quote again. Ask:             <ul style="list-style-type: none"> <li>* “What does this make you wonder?”</li> </ul> </li> <li>Invite a few students to share their wonders. Record students’ questions at the bottom of the quote for future reference. Tell students that in the next few weeks, they should have answers to many of the questions they posed.</li> </ul>	<ul style="list-style-type: none"> <li>Support struggling learners by pre-highlighting key phrases for students to focus on, such as: “even think of walking great distances every day to throw a bucket into a swamp and call what comes out drinking water.”</li> </ul>
<p><b>B. Unpacking Learning Targets (2 minutes)</b></p> <ul style="list-style-type: none"> <li>Invite a student to read the targets aloud. Review targets with students and ask the following question:             <ul style="list-style-type: none"> <li>* “Based on these targets, what do you think your work is going to look like today?”</li> </ul> </li> <li>Give students time to think then talk to each other. Invite one or two students to share what this means for their work today.</li> </ul>	



Work Time	Meeting Students' Needs
<p><b>A. Carousel Protocol: Water Photographs (15 minutes)</b></p> <ul style="list-style-type: none"><li>• Tell students that they are going to take some time to think about all the things they already know about water. Explain that they will be doing a “Fact Frenzy.” Ask:<ul style="list-style-type: none"><li>* “Who thinks they know what the word <i>frenzy</i> means?”</li></ul></li><li>• Give students a moment to think.</li><li>• Invite anyone who has an idea or definition to share. Guide students to the definition or quickly define it for them: a <i>frenzy</i> is to have wild excitement. Explain with enthusiasm that a Fact Frenzy is like a brainstorm. Set the tone for a frenzy of facts. Tell students that they are going to have a frenzy about water.</li><li>• Then tell students that they are going to think of as many things they know about water as they can.</li><li>• Place students in triads; distribute 10 <b>index cards</b> to each triad.</li><li>• Display the following question:<ul style="list-style-type: none"><li>* “What are the most important things a person should know about water in our world?”</li></ul></li><li>• If needed, do some guided practice or a quick model using sample <b>Fact Frenzy facts</b>.</li><li>• Release students to work together to think of as many facts as they can think of about water. As students are working, maintain the tone and level of enthusiasm with comments such as: “We really have a frenzy of facts going now! Look how fast those pencils are going!” or “This is quite a frenzy! I see many of you have a lot of facts!”</li><li>• Give students about 10 minutes for their frenzy. Then ask each triad to join another triad to form groups of six to share their facts. Tell students that if they have similar or the same facts, they can <i>high five</i> each other for their good thinking and should then put the facts together as one card using a <b>paper clip</b>.</li><li>• Once students have shared their facts with their other triad, collect their index cards. (You will use these later to create an anchor chart.)</li><li>• Bring the whole group back together. Explain to students that you are going to take all their facts and put them together on a chart so they have them for reference.</li></ul>	<ul style="list-style-type: none"><li>• Confer with struggling learners about what they know about water during the frenzy. Scribing what they know supports their contribution and engagement.</li></ul>



Work Time (continued)	Meeting Students' Needs
<p><b>B. Gallery Walk and Note-taking (20 minutes)</b></p> <ul style="list-style-type: none"> <li>• Explain to students that now that they have thought about what they know about water, they are going to do some thinking about why there might be so many people (a billion!) without water.</li> <li>• Display the <b>Challenges to Having Clean Water recording form</b> and highlight the three headings: <u>demands</u> for water, <u>pollution</u>, and <u>access</u>. Give students a moment to talk to someone next to them about which of these words they know and which they don't know.</li> <li>• Using equity sticks, invite students to share words that are familiar to them. Guide them to the correct definitions of the words if they are close. Name each of these as power words.</li> <li>• Note for students that <i>access</i> means “able to use or get.” Share that this is the base word for another word they might see in places with a wheelchair sign—handicap <i>accessible</i>.</li> <li>• Give students a sentence with the word <i>demand</i>, such as: “I demand that I have dinner right now.” Guide students to the definition.</li> <li>• <i>Pollution</i> is likely the most familiar word to students. Guide them to this definition (harmful or poisonous substances in an environment), noting that “pollute” is the root word and “-tion” is the suffix added to the word.</li> <li>• Then explain to students that they are going to take part in a Gallery Walk, thinking about these three categories. Their job is to find details in the images that tell them something about each one of these challenges. Read the targets for today aloud: <ul style="list-style-type: none"> <li>* “I can find specific details in images that highlight a challenge to having clean water for everyone.”</li> <li>* “I can take notes from texts that highlight a challenge to having clean water for everyone.”</li> <li>* “I can sort my notes into categories of three specific challenges.”</li> </ul> </li> <li>• Tell students that there isn't a “right” category, but that what is important is that they look closely at the details in the images and the quotes to think more carefully about the three challenges presented today. Explain that some images might seem to fit in more than one category.</li> <li>• Display one of the <b>Gallery Walk images</b> and provide a brief model of what students might write. For example: “I am looking at this image of a boy scooping up water from sand. A detail I see is that this is a small puddle of water in the middle of a lot of sand. I'm going to write that here in the details column. I think this is about access, because I can see that the little boy is getting water from a puddle to put in a container. It seems that he is trying to get water from any place. So I am going to write ‘access’ in this column.”</li> </ul>	<ul style="list-style-type: none"> <li>• Read the text excerpts aloud to support ELLs and other students who might be challenged by this task.</li> <li>• Consider providing fewer text excerpts to students who may be challenged by large amounts of text.</li> </ul>



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"><li>• Ask students to give a thumbs-up if they know what they are going to do next. Address any clarifying questions.</li><li>• Then release them to spend about 15 minutes in the Gallery Walk, taking notes.</li></ul>	
<p><b>C. Sharing Notes and Sorting into Challenges (10 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students back together with their recording forms. Tell students that they are now going to take turns sharing what they recorded on their forms. Remind the class about the norms for sharing together.</li><li>• After 5 minutes, ask students to pause in their work and take 5 minutes in their group to discuss the following question:<ul style="list-style-type: none"><li>* “Why do you think pollution, access, and demand for water are difficult challenges for people?”</li></ul></li><li>• Then bring them back together as a whole group.</li></ul>	



Closing and Assessment	Meeting Students' Needs
<p><b>A. Exit Ticket: What Surprised You Today about the Challenges to Having Clean Water for Everyone?</b> <b>(5 minutes)</b></p> <ul style="list-style-type: none"><li>• Using equity sticks, invite a few students to share what they talked about regarding the question. Invite a few more students to share a big lingering question they might have after seeing the images.</li><li>• Distribute the <b>exit ticket</b>. Give students a few minutes to complete their ticket. Collect the tickets and give students specific praise about what they did well today. For example: "I noticed you were working well together when you shared your thinking. I saw you taking turns and listening carefully."</li><li>• Collect students' recording forms and their exit tickets to informally assess.</li><li>• Preview the homework.</li></ul>	



Homework	Meeting Students' Needs
<ul style="list-style-type: none"><li>• Share with someone in your family the three challenges to having clean water that you learned about today. Tell them what was surprising to you and what questions you have about clean water now.</li><li>• Continue reading in your independent reading book and complete your <b>Independent Reading recording form</b>.</li></ul> <p><i>Note: Type and print students' Fact Frenzy index cards. Type them so that they are cut-able for sentence strips. Print and make 12 sets of the sentence strips (enough for each pair of students). Cut and place one set onto a piece of chart paper. Title the chart paper "What We Want People to Know about Water on Earth."</i></p> <p><i>The other sets of sentence strips will be used in Lesson 2. Note that students will create and use sentence strips throughout Unit 2. In subsequent lessons, students will create sentence strips that highlight the things they are learning about each of the challenges to having clean water for everyone. Students who might need extra support with their writing can use the sentence strips they create throughout Units 2 and 3 to help them organize their writing. These students will be able to pull the sentence strips (written on index cards in subsequent lessons) and physically manipulate them to support the development and organization of their ideas.</i></p> <p><i>Add the following power words to the word wall: "access" and "demand."</i></p> <p><i>Review students' recording forms and exit tickets as an informal assessment of what they know about each of these challenges at this point.</i></p>	





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# Grade 3: Module 4: Unit 2: Lesson 1

## Supporting Materials



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Water Quote

“It is easy to take something for granted when it is always there. In places rich with clean water resources there are watered lawns, clean cars, and long showers. Comprehending the global need for water is difficult—the tap turns; the water comes out. It is unimaginable to even think of walking great distances every day to throw a bucket into a swamp and call what comes out drinking water. More than a billion people in the world are currently in need of clean drinking water.”

NEED, The Humanitarian Magazine, Issue 3, 2007



Challenges to Having Clean Water  
Recording Form

Image # or Quote #	Details From the Image	I think this could be a challenge of ... (demand for water, access or pollution) because ...



Gallery Walk Images



Image from Reisinger, John. "Future Clean Water Solutions." NEED 2007: 2-15. Print.  
Complete article can be found in Lesson 8.



Gallery Walk Images



Images from Reisinger, John. "Future Clean Water Solutions." NEED 2007: 2-15. Print.  
Complete article can be found in Lesson 8.





Gallery Walk Images



Stephen Coddington, Planet Geography: [http://www.planetgeography7.com/PG7/Chapter\\_4\\_Photos.html](http://www.planetgeography7.com/PG7/Chapter_4_Photos.html).



**Sample Fact Frenzy Facts**  
For Teacher Reference

Water covers 70 percent of the earth.

Most of the water is found in oceans.

Ocean water is saltwater. We can't drink it.

The same water that is on earth today is the same water from billions of years ago.

Water cycles through a process of precipitation, evaporation, and condensation.

Water finds its way downhill. It starts in the mountains and forms into streams and rivers. It goes to the ocean.

Only a small part of the water on earth is drinkable.

We have only a small amount of freshwater.

Freshwater comes from glaciers and lakes.

Some water is found underground.

Water is found inside soil.



Exit Ticket

---

**Name:**

---

**Date:**

---

**What Surprised You Today About the Challenges to Clean Water?**

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Independent Reading Recording Form

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Title of Book:	
Pages Read:	

Use this chart to keep track of what you read.

Where	Who	What

**Words**

1. Write one word that struck you because it was a precise word. This could be a verb, or it could be a good adjective, or a describing word.

I think this word is precise because \_\_\_\_\_



Independent Reading Recording Form

2. Write down any word or words you found that you are unsure about.

Words	I think this means



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## **Grade 3: Module 4: Unit 2: Lesson 2**

### **Writing to Teach a Reader about Water on Earth: Laying the Foundation for Water Challenges Research**



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

I can write informative/explanatory texts that convey ideas and information clearly. (W3.2)

- a. I can write an informative/explanatory text that has a clear topic.
- a. I can group supporting facts together about a topic in an informative/explanatory text using both text and illustrations.
- b. I can develop the topic with facts, definitions, and details.
- c. I can use linking words and phrases to connect ideas within categories of information. (e.g., *also, another, and, more, but*)
- d. I can construct a closure on the topic of an informative/explanatory text.

Supporting Learning Targets

- I can write a paragraph that teaches my reader about water on earth.
- I can identify the most important information to use in my paragraph.

Ongoing Assessment

- Water on Earth paragraph



Agenda	Teaching Notes
<ol style="list-style-type: none"><li>Opening<ol style="list-style-type: none"><li>Engaging the Reader: Reflecting on the Challenges to Clean Water (5 minutes)</li><li>Unpacking Learning Targets (5 minutes)</li></ol></li><li>Work Time<ol style="list-style-type: none"><li>Mini Lesson and Guided Practice: Organizing Information to Teach a Reader (15 minutes)</li><li>Teaching Our Reader: Writing about Water (25 minutes)</li></ol></li><li>Closing and Assessment<ol style="list-style-type: none"><li>Sharing Our Paragraphs (5 minutes)</li><li>Reflecting on Our Writing (5 minutes)</li></ol></li><li>Homework<ol style="list-style-type: none"><li>Read your independent reading book and complete your Independent Reading recording form.</li></ol></li></ol>	<ul style="list-style-type: none"><li>In this lesson, students begin thinking about how to communicate their learning through writing. Students will build on the work they did in Module 2A, where they were teaching their readers about frogs.</li><li>Since this is the end of third grade, this writing begins to have students think specifically about their audience when they write. This pushes students toward the fourth-grade version of W.4.</li><li>As described in a Lesson 1 Teaching Note, students use the facts and information they created in their “Fact Frenzy” to write a paragraph in which they teach their reader what they know about water. These two lessons work in tandem. They begin the process of research. Students must first start with solidifying what they know before they begin to read more texts and ask questions to drive their inquiry.</li><li>In advance: Cut up the remaining seven sets of Fact Frenzy facts developed in Lesson 1.</li></ul>



Lesson Vocabulary	Materials
access, demand, pollution	<ul style="list-style-type: none"><li>• Gallery Walk images (from Lesson 1; choose one or two for display)</li><li>• Equity sticks</li><li>• What We Want People to Know about Water on Earth anchor chart (created at the end of Lesson 1; one for display)</li><li>• Fact Frenzy sentence strip sets (from Lesson 1; 12 sets; one set per pair)</li><li>• Document camera</li><li>• Model paragraph: Water on Earth (one for display)</li><li>• Water on Earth paragraph recording form (one per student)</li><li>• Water on Earth paragraph criteria</li><li>• Independent Reading recording form (one per student)</li></ul>



Opening	Meeting Students' Needs
<p><b>A. Engaging the Reader: Reflecting on the Challenges to Clean Water (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students whole group. Ask them to turn and share with an elbow partner:<ul style="list-style-type: none"><li>* What was the challenge to having clean water that you shared with your family last night for homework?</li></ul></li><li>• Invite a few students to share with the class.</li><li>• Remind them about the images they looked at in the previous lesson about the challenges of having enough clean water for everyone. Review the vocabulary and meaning of the challenges: <i>access</i>, <i>demand</i> for water, and <i>pollution</i>.</li><li>• Display one or two of the <b>Gallery Walk images</b> to prompt students' memories. Ask students to look at the images displayed and reflect on the following question:<ul style="list-style-type: none"><li>* "Why should people care about water?"</li></ul></li><li>• Give students time to think and talk together.</li><li>• Using <b>equity sticks</b>, ask several students to share their thinking. The goal for this engagement activity is to set a sense of purpose for learning about water and teaching others about water. Draw on students' connections and emotional response to the images that they saw in the Gallery Walk. Guide students to reflect on the fact that water is essential for survival and that, for some people in the world, you can't just turn on a faucet to get fresh water.</li></ul>	
<p><b>B. Unpacking Learning Targets (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Invite a few students to read the learning targets aloud. Ask:<ul style="list-style-type: none"><li>* "What are the important words in these targets that help you know what work we will do today?"</li></ul></li><li>• Give students time to think, then talk to a partner.</li><li>• Invite a few students to share their thinking. Listen for students to identify words like: "write," "paragraph," "teach," and "engaging."</li></ul>	



Work Time	Meeting Students' Needs
<p><b>A. Mini Lesson and Guided Practice: Organizing Information to Teach a Reader (15 minutes)</b></p> <ul style="list-style-type: none"><li>• Explain to students that throughout this unit, they are going to learn about the challenges of making sure everyone has clean water. Explain that at the end of the module, they are going to teach people about the water challenges in order to help everyone care about protecting water.</li><li>• Tell students they already know a lot about water on earth and they have already practiced writing what they know about water in Unit 1. Their next step is to write in order to teach a reader. Explain that writing is one of the most important ways that people try to teach others, but that writers have to think carefully about how they organize their information so it doesn't sound like a list of facts. It has to be interesting for a reader.</li><li>• Remind students that in the previous lesson they had a Fact Frenzy to identify all the important facts about water. Display the <b>What We Want People to Know about Water on Earth anchor chart</b>. Show students that the facts on this anchor chart are what they came up with in the previous lesson. Read the second learning target: "I can identify the most important information to use in my paragraph."</li><li>• Tell students you are going to use the information they came up with in the previous lesson to write a paragraph that teaches a reader about water. Place one set of the <b>Fact Frenzy sentence strips</b> (precut) on the <b>document camera</b>. Take 2 or 3 minutes for students to think aloud. Tell them to listen for how you are choosing your facts:</li><li>• "Let's see, I could teach my reader about where water comes from, or I could teach my reader all about the water cycle, but I want to teach my reader about how there isn't very much water. I know that I have to make it interesting to a reader. If I just grabbed all these facts and put them together, that wouldn't be very interesting to my reader and they wouldn't learn why water is so important."</li><li>• Continue: "I am going to have to choose the most important facts that I want to use, and then I will probably write some new sentences of my own to make it interesting. One thing I think a reader should know is that our water is the same water we have always had. So, I think I will use this fact: 'The same water that is on earth today is the same water from billions of years ago.' I think I also want to use the information about the water cycle so my reader knows why we have the same water. 'Water cycles through a process of precipitation, evaporation, and condensation.' While it might seem like we have a lot of water, we don't have a lot of drinking water. Water covers 70 percent of the earth. 'Only a small part of earth's water is drinkable.' This way I am teaching my reader how important water is because there isn't very much of it."</li><li>• Pause and ask students:<ul style="list-style-type: none"><li>* "How did I select my facts? What did you see me think about?"</li></ul></li><li>• Give students a minute to think and talk with a partner about what they noticed in your think-aloud.</li></ul>	





Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"><li>• Then use equity sticks to have one or two students share. Listen for: “You thought about what you wanted to teach your reader first and then you chose your facts.”</li><li>• Place students in partnerships. Distribute the Fact Frenzy sentence strip sets (one per pair). Tell students:<ol style="list-style-type: none"><li>1. “You are first going to practice doing just what WAS MODELED, choosing the most important facts you want to use for your writing.”</li><li>2. “Then you are going to talk with your partner about what you would want to teach your reader about water and select Fact Frenzy facts that support your ideas.”</li></ol></li><li>• Tell students that partners might have the same idea about what to teach their reader, or they might have a different idea. Either is fine. If partners want to choose the same fact from the frenzy, that’s OK; they should just put it between them so each person can see it. Answer clarifying questions as needed.</li><li>• Release students to take 5 minutes to talk together and work with the strips:<ul style="list-style-type: none"><li>* “What do you want to teach your reader?”</li><li>* “Which facts will match what you want to teach?”</li></ul></li><li>• After 5 minutes, focus their attention back to the document camera. Tell students it’s OK if they didn’t quite finish choosing their facts because they are going to have time to continue thinking and writing. Tell them you are going to demonstrate what you did after you selected your facts to teach your reader. Remind students that you knew you couldn’t just string these facts together or the reader wouldn’t be able to follow what you wanted to teach them.</li><li>• Display the <b>model paragraph: Water on Earth</b>. Say something like: “So, once I decided what I wanted to teach my reader and chose my facts, I knew I had to put it together into a paragraph that made sense. Let’s read this paragraph. I underlined the sentences from the Fact Frenzy. You will notice that there are sentences that aren’t underlined. As we read this, look at how I used my facts. Look also at how I crafted a bold beginning to hook my reader.”</li><li>• Read the paragraph aloud. Ask students:<ul style="list-style-type: none"><li>* “What did you notice about my paragraph? How did I use the facts to help me write my paragraph?”</li></ul></li><li>• Give students 1 minute to think and then talk with a partner.</li><li>• Use equity sticks and call on a few students to share out. Listen for students to point out that the facts aren’t just listed, that there are new sentences to make the facts make sense. Guide students to identify that there is a topic and concluding sentence.</li></ul>	



Work Time (continued)	Meeting Students' Needs
<p><b>B. Teaching Our Reader; Writing about Water (25 minutes)</b></p> <ul style="list-style-type: none"><li>• Explain to students that they are now going to write their own paragraph to teach their reader about water. Distribute the <b>Water on Earth Paragraph recording form</b>. Give students a moment to review the directions with a partner. Answer any clarifying questions as needed.</li><li>• Release students to write their paragraph. Encourage students to sit with the same partner they sat with during guided practice. This can provide support for students as they write. As students write, circulate and confer with them. Support them by asking questions such as:<ul style="list-style-type: none"><li>* “What do you want to teach your reader about water on earth?”</li><li>* “If that’s what you want to teach your reader, what facts do you think you will use?”</li><li>* “What else are you going to add to your paragraph so it isn’t just a list of facts?”</li></ul></li><li>• Pull smaller groups together who might be struggling and who are trying to teach their reader the same thing, and have them talk to each other about the facts they are using and what they want to add. Guide them to confer with each other and identify what they are going to write next. Provide suggestions such as: “I notice that you want to teach your reader about the water cycle. Your reader might need a little more information about the water cycle than just precipitation, condensation, and evaporation. Can you talk together to think of a sentence that might describe those words and what they do?”</li><li>• Invite students to bring their writing back to the whole group area.</li></ul>	



Closing and Assessment	Meeting Students' Needs
<p><b>A. Sharing Our Paragraphs (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Use equity sticks to determine triads. Ask students to sit in their triads facing each other. Give them time to share their paragraphs with their triad.</li></ul>	<ul style="list-style-type: none"><li>• Provide struggling learners with extra time to read their paragraph themselves before they read aloud. Have them stop writing a minute or two early and reread their writing so that they are ready to share.</li></ul>
<p><b>B. Reflecting on Our Writing (5 minutes)</b></p> <ul style="list-style-type: none"><li>• After students have shared their paragraphs, focus students' attention back together. Ask them to think about what they heard in the paragraphs:<ul style="list-style-type: none"><li>* "How did we make our writing more than just a list of facts?"</li></ul></li><li>• Give triads a moment to talk to each other. Then invite one or two students to share their thinking.</li><li>• Offer specific positive feedback about what you noticed about their writing or their process today. Tell students that they are going to revisit this paragraph again as they continue to learn more about water.</li><li>• Collect students' paragraphs to informally assess.</li></ul>	
Homework	Meeting Students' Needs
<ul style="list-style-type: none"><li>• Read your independent reading book and complete your <b>Independent Reading recording form</b>.</li></ul> <p><i>Note: Review students' water paragraphs with the <b>Water on Earth paragraph criteria</b>. Provide comments for students. Comments should focus on the quality of facts that students selected for their paragraph, whether or not they connect together in a way that makes sense to a reader. Look to see that students have both a topic sentence and a concluding sentence; make comments or suggestions if they are lacking those. Comment on students' use of conventions; note any necessary instruction based on common errors. Save this writing. Students will review their writing and your feedback in Lesson 11.</i></p>	



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# Grade 3: Module 4: Unit 2: Lesson 2

## Supporting Materials



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**Model Paragraph:**

Water on Earth

When you look down at the earth from space, you see a whole lot of blue. The surface of the earth is made up of almost 70 percent water. Even though our earth is made up of that much water, we won't ever get more of it. The same water that is on earth today is the same water from billions of years ago. That's because our water falls from the sky and goes back up again in something called the water cycle. Water cycles through a process of precipitation, evaporation, and condensation. Water is important because there will never be new water on earth.



**Water on Earth Paragraph**  
Recording Form

Write a paragraph that teaches your reader what you want them to know about water on earth. Use facts from our Fact Frenzy to support your ideas. Be sure to include in your paragraph:

- A topic sentence
- Facts about water that support what you are teaching your reader
- A concluding sentence
- Accurate spelling and grammar



Water on Earth Paragraph Criteria

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Learning target:** I can write a paragraph that teaches my reader about water on earth.

Criteria	Supporting Learning Targets	Teacher Feedback
<p><b>IDEAS</b></p> <p><b>(CONTENT AND ANALYSIS)</b> The extent to which the essay conveys ideas and information clearly and accurately in order to support analysis of topics or text.</p> <p><b>(COMMAND OF EVIDENCE)</b> The extent to which the essay presents evidence from the provided text to support analysis and reflection.</p> <p><i>*Note: To suit the task and to adapt to student-friendly language, two categories were merged together</i></p>	<p>I can identify what I want to teach my reader about water.</p> <p>I can choose the most important facts to use to teach my reader about water.</p>	
<p><b>ORGANIZATION</b> <b>(COHERENCE, ORGANIZATION, and STYLE):</b> The extent to which the essay logically organizes complex ideas, concepts, and information using formal style and precise language.</p>	<p>I can use a topic sentence to clearly teach my reader about water.</p> <p>I can use a concluding sentence to wrap up my writing.</p>	



Water on Earth Paragraph Criteria

Criteria	Supporting Learning Targets	Teacher Feedback
<b>CONVENTIONS</b> <b>(CONTROL of CONVENTIONS):</b> The extent to which the essay demonstrates command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling.	I can use conventions to send a clear message to my reader.  I can use beginning and ending punctuation.	





Independent Reading Recording Form

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Title of Book:	
Pages Read:	

Read your independent reading book. Follow the direction in each section.  
Just as we have done when reading *Peter Pan*, use this chart to keep track of what you read.

Where	Who	What

**Words**

1. Write one word that struck you because it was a precise word. This could be a verb, or it could be a good adjective, or a describing word.

I think this word is precise because \_\_\_\_\_



Independent Reading Recording Form

2. Write down any word or words you found that you are unsure about.

Words	I think this means



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# **Grade 3: Module 4: Unit 2: Lesson 3**

## **Asking and Answering Questions about *One Well*, “People at the Well” (Pages 16 and 17), Part 1**



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**Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)**

I can ask questions to deepen my understanding of an informational text. (RI.3.1)  
I can answer questions using specific details from an informational text. (RI.3.1)  
I can document what I learn about a topic by taking notes. (W.3.8)

**Supporting Learning Targets**

- I can ask questions to deepen my understanding of “People at the Well.”
- I can answer questions using specific details from “People at the Well.”
- I can document my learning by taking notes about how people use water.

**Ongoing Assessment**

- Asking and Answering Questions recording form



Agenda	Teaching Notes
<ol style="list-style-type: none"><li>1. Opening<ol style="list-style-type: none"><li>A. Engaging the Reader: The Word for a Person Who Searches Again and Again (8 minutes)</li><li>B. Unpacking Learning Targets (2 minutes)</li></ol></li><li>2. Work Time<ol style="list-style-type: none"><li>A. Reading and Answering Questions about “People at the Well” (20 minutes)</li><li>B. Initial Questions (10 minutes)</li><li>C. Reading Closely to Answer Questions (15 minutes)</li></ol></li><li>3. Closing and Assessment<ol style="list-style-type: none"><li>A. Adding to the New Anchor Chart: Researching Text Anchor Chart (5 minutes)</li></ol></li><li>4. Homework<ol style="list-style-type: none"><li>A. Research the ways water is used in your family and neighborhood. Write a list of all the ways that you see people using water.</li><li>B. Remind students to bring in their gallon container.</li></ol></li></ol>	<ul style="list-style-type: none"><li>• Throughout Module 4, there is less scaffolding: Students access text with greater independence (moving them toward RI.3.10). Having students work independently with a text first will give you a chance to assess their ability to read the text on their own and to access the strategies you have been developing throughout the year.</li><li>• This lesson reintroduces students to the concept of research. Throughout the remainder of the unit, students ask their own questions and read in part to research the answers to these questions. Later in the module, students will use this research to educate others about water.</li><li>• In Lessons 3–6, students conduct their research through <i>One Well</i>. In later lessons in the unit, students use additional sources.</li><li>• In Lessons 3–6, students discuss their reading in pairs. For this text, pair students heterogeneously but not at extreme ends of the range, so that students can support each other with text as needed. Based on the level of any ELLs, decide whether to partner these students with native speakers or students who speak their home language. Consider leaving partners/groups the same for all three lessons.</li><li>• The text that students read in this lesson offers rich opportunities for math connections. During another part of the day, consider reviewing percentages and/or liter/gallon measurements.</li><li>• For homework in Unit 1, Lesson 13, students were asked to bring a gallon jug. If students have not yet begun to bring these in, make sure that you have at least one jug for this lesson. You will use these jugs in Lessons 3–5.</li><li>• In advance: If possible, copy the vocabulary flash cards on stiff card stock; cut them apart.</li></ul>



Lesson Vocabulary	Materials
search, researcher, initial, location; societies, chemicals, agriculture, industry, livestock, produce	<ul style="list-style-type: none"><li>• Power Words/Water Words anchor chart (from Unit 1, Lesson 2)</li><li>• Document camera</li><li>• Prefix/Root/Suffix chart</li><li>• Word list (one per pair)</li><li>• Vocabulary flash cards (one set per pair)</li><li>• <i>One Well</i>, “People at the Well” (pages 16 and 17)</li><li>• Gallon container</li><li>• Asking and Answering Questions recording form (blank; one to display)</li><li>• Asking and Answering Questions recording form—with questions (one per student and one to display)</li><li>• Researching Text anchor chart (new; teacher-created)</li><li>• Equity sticks</li></ul>



Opening	Meeting Students’ Needs
<p><b>A. Engaging the Reader: The Word for a Person Who Searches Again and Again (8 minutes)</b></p> <ul style="list-style-type: none"><li>• Tell students you want them to get a picture in their heads of the word <i>search</i>. Ask for volunteers to stand and act it out.</li><li>• Ask:<ul style="list-style-type: none"><li>* “What did you see our volunteers doing when they were searching?”</li></ul></li><li>• Give students time to think, and then call on a few volunteers. Listen for ideas like: “They were looking closely,” or “They were looking carefully.” Add <i>search</i> to the power words portion of the <b>Power Words/Water Words anchor chart</b>.</li><li>• Using a <b>document camera</b>, project the <b>Prefix/Root/Suffix chart</b>. Say:<ul style="list-style-type: none"><li>* “With a partner, see if you can use one prefix (start of a word) and one suffix (word ending) along with the root word <i>search</i> to make a word that means ‘a person who looks carefully again and again.’”</li></ul></li><li>• Give students 2 minutes to work together and then ask a number of pairs to share their words. Write each word you hear without comment (even if it doesn’t make sense). Put a check next to the word each time you hear it. Likely, the word <i>researcher</i> will have the most checks. Add <i>researcher</i> to the power words portion of the Power Words/Water Words anchor chart.</li><li>• Ask:<ul style="list-style-type: none"><li>* “Who would like to explain how they know that <i>researcher</i> means ‘a person who looks carefully again and again?’”</li></ul></li><li>• Give students time to think, and then call on few students to respond. Listen for ideas like understanding of “re-” as “something that happens over and over” (from the lesson on recycling water) or that “-er” means “a person who” (like a teacher is a person who teaches).</li><li>• Then invite students to share with their partners:<ul style="list-style-type: none"><li>* “What kinds of things do people research?”</li></ul></li><li>• After partners have a chance to share, ask for a few volunteers to share their answers. Listen for ideas like: “When they are buying something big,” “When they are making an important decision,” etc. Tell students: “Readers become researchers when they start to ask questions that make them look carefully at information again and again in order to learn more about a topic.”</li></ul>	



Opening (continued)	Meeting Students’ Needs
<p><b>B. Unpacking Learning Targets (2 minutes)</b></p> <ul style="list-style-type: none"><li>• Ask students to read the targets to themselves. Tell students that as in Unit 2 when they researched frogs, they are now going to research water. Then ask them to share with a partner:<ul style="list-style-type: none"><li>* “What skills are you going to use as a researcher today?”</li></ul></li><li>• After partners share, ask for a volunteer. Affirm that like researchers they will be reading closely, asking and answering questions, and keeping notes that they can use later. Tell students that in the next few lessons they will be doing most of their research from <i>One Well</i>. In future lessons they will have the opportunity to conduct research from additional sources.</li></ul>	





Work Time	Meeting Students’ Needs
<p><b>A. Reading and Answering Questions about “People at the Well” (20 minutes)</b></p> <ul style="list-style-type: none"><li>• Tell students that in a few minutes they are going to have a chance to read one section of <i>One Well</i> called “People at the Well.” Tell them that there are a number of words in this text that they may not be familiar with. Tell students that you have made a <b>word list</b> of these words. Distribute the list and read it together.</li><li>• Then tell students that to help them out, you also made <b>vocabulary flash cards</b> for each pair with the definition of these words on them. It will be up to them to figure out which words from the word list match the definitions on the flash cards. Suggest that they lay out the flash cards and the word list so that they are easy to see while they are reading.</li><li>• Distribute <b>One Well</b>. Focus students on pages 16 and 17: “People at the Well.” Point out a place in the text where it gives the gallon equivalent in the text (e.g., 49 U.S. gal.). Hold up the <b>gallon container</b>. Explain that this is a gallon, so if the text says “49 U.S. gal.,” it means it takes 49 of these.</li><li>• Tell students that they will have about 10 minutes to do the following:<ol style="list-style-type: none"><li>1. Whisper read the whole text with your partner.</li><li>2. Go back and search for the words on the word list.</li><li>3. When you find a match between a word on the list and the vocabulary flash card, write that word neatly and spelled correctly on the front of the card.</li><li>4. It’s OK if you don’t complete all the cards before time is up.</li></ol></li><li>• Invite students to begin. Circulate and observe as they read. Give support with decoding only when absolutely necessary. If students need support with the vocabulary, consider directing them to the paragraph where the word can be found. Be sure to check the flash cards for correct definitions as you circulate.</li><li>• If students finish early, they should keep working on the flash cards, illustrate the definitions, or quiz each other.</li><li>• Call students together. Review the words and definitions, then ask:<ul style="list-style-type: none"><li>* “How did you figure out which definitions went with which words?”</li></ul></li><li>• Give students 1 minute to think. Then call on volunteers to respond. Listen for ideas such as: “using the pictures,” “reading words around it,” or “substituting a word from the definition.”</li></ul>	<ul style="list-style-type: none"><li>• If students need additional support with vocabulary, use one or more of the following strategies: Indicate the paragraph where the words can be found to show the definition, give students a limited number of words to look for at a time, and/or add an icon/visual representation of each word on the word list.</li></ul>



Work Time (continued)	Meeting Students’ Needs
<p><b>B. Initial Questions (10 minutes)</b></p> <ul style="list-style-type: none"><li>• Project the <b>Asking and Answering questions recording form (blank)</b>. Tell students that as they research water during the rest of this unit, they are going to use this recording form to keep track of their questions and answers. Ask students to look carefully at the recording form and then to share what they think they will do with it. Give students a moment to think.</li><li>• Cold call students to respond. Listen for ideas like: “Ask questions and then try to find the answers in the book.” Affirm that not only will students find the answers in text, they will also record the <i>location</i> of the answers. Focus students on this column. Then direct students to the word <i>initial</i>. Tell them that <i>initial</i> means “first.” So this means that they will come up with their first questions before they even read the text. Add the words <i>initial</i> and <i>location</i> to the Power Words section of the Power Words/Water Words anchor chart.</li><li>• Display <b>Asking and Answering questions recording form-with questions</b> on the document camera. Call on volunteers to read these questions aloud. Tell students that before you read the text, you looked briefly at the two pages and came up with these two questions. Project <i>One Well</i>, “People at the Well” (pages 16 and 17). Ask:<ul style="list-style-type: none"><li>* “Why do you think I thought I could find the answer to that question in this text?”</li></ul></li><li>• Give students a moment to think, and then call on volunteers. Listen for ideas like: “the title” or “the pictures.” Add these ideas to the Asking Questions section of the new <b>Researching Text anchor chart</b>.</li></ul>	



Work Time (continued)	Meeting Students’ Needs
<p><b>C. Reading Closely to Answer Questions (15 minutes)</b></p> <ul style="list-style-type: none"><li>• Tell students that in future lessons, they will have a chance to come up with their own initial questions. Today they will use your questions and search for answers, just as they searched the text for the definitions of words.</li><li>• Draw students’ attention to the displayed Asking and Answering Questions recording form—with questions. Point out Part 2 of the form. Tell students that the first thing they will do is search for a key detail that answers this question. Direct students to the fourth paragraph (“The remaining 69% ...”). Ask them to talk with their partner and determine what they would write in the Key Detail box. Encourage students to give a silent signal when they have an answer.</li><li>• When most students have given the silent signal, pull an <b>equity stick</b> to select a student to share out with the whole group. Listen for an answer like: “Sixty-nine percent of water is used for agriculture” or “People use water to grow food and to give to farm animals.” Write in the Key Detail box: “69% = agriculture (grow food, raise animals).”</li><li>• Then point out the column labeled Location. Remind students that they are going to write down where they found the answer or where it was located in this box. Write “¶ 4.”</li><li>• Distribute an Asking and Answering Questions recording form—with questions to each student. Tell students that they will have about 10 minutes to work with their partners to find additional key details to answer the first question and to answer the second question. Tell them not to worry about the New Questions column yet.</li><li>• Circulate as students work. As needed, support them in condensing their key details and accurately naming the location. For the fact boxes, suggest that students label these by color (e.g., purple box).</li><li>• Note: Students will use these recording forms in Lesson 4 as well. Either collect the forms or have students put them in an appropriate place.</li></ul>	



Closing and Assessment	Meeting Students’ Needs
<p><b>A. Adding to the New Anchor Chart: Researching Text Anchor Chart (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students together. Commend them for their good work on this new recording form. Ask: “What have you discovered so far about searching the text for answers to questions?”</li><li>• Give them time to think, then call on a volunteer. Listen for ideas like: “Read the fact boxes next to the picture the question is about” and “Get the gist of each paragraph and see if it answers the question.” Add these ideas to the Answering Questions section of the Researching Text anchor chart.</li></ul>	
Homework	Meeting Students’ Needs
<ul style="list-style-type: none"><li>• Research the ways water is used in your family and neighborhood. Write a list of all the ways that you see people using water.</li><li>• Remind students to bring in their gallon container.</li></ul>	



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# Grade 3: Module 4: Unit 2: Lesson 3

## Supporting Materials



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Prefix/Root/Suffix Chart

	search	-er
		-es
		-ly




**Word List**

Agriculture  
Chemical(s)  
Industry  
Livestock  
Produce  
Society/Societies



Vocabulary Flash Cards

<b>Make</b>	<b>Useful, man-made products that make can water dirty</b>
<b>A group of people; a community</b>	<b>Businesses that grow plants and raise animals for food</b>
<b>Horses, cows, sheep, and other useful animals that are raised for food, materials (like wool), or for work</b> 	<b>Businesses that make things, like factories that make milk or cars</b>





**Researching Text Anchor Chart**  
For Teacher Reference - Adapt Based on Student Responses

Note: You will continue to build this anchor chart and use it through the end of the unit. To support the organization of information on this anchor chart, consider including the following bolded headings.

**Researching Text**

**Asking INITIAL questions**

Think about the topic, then ...

- Read the title.
- Look at the pictures.

**Answering questions**

Read the fact boxes next to the picture the question is about.

Get the gist of each paragraph and see if it answers the question.

**Asking NEW questions**

(nothing for this lesson)

**How does asking and answering questions about text help researchers?**

(nothing for this lesson)



Asking and Answering Questions  
Recording Form

Text: \_\_\_\_\_

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking



Asking and Answering Questions  
Recording Form—with Questions

Text: \_\_\_\_\_

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking
How do people use water?			
What do animals like cows have to do with water?			



Asking and Answering Questions

Recording Form—with Questions – Answers For Teacher Reference

Text: \_\_\_\_\_

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking
<b>How do people use water?</b>	<ol style="list-style-type: none"><li>1. <b>69% = agriculture (grow food, raise animals)</b></li><li>2. <b>At home: baths, cooking, drinking, etc.</b></li><li>3. <b>21% = making things we use (industry)</b></li><li>4. <b>It takes a lot of water to make a glass of milk or fast-food lunch</b></li></ol>	<ol style="list-style-type: none"><li>1. ¶ 4</li><li>2. ¶ 2 and blue boxes</li><li>3. ¶ 3 and yellow box</li><li>4. Purple and pink boxes</li></ol>	
<b>What do animals like cows have to do with water?</b>	<b>49 gallons of water = one glass of milk</b>	<b>Purple box</b>	



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## **Grade 3: Module 4: Unit 2: Lesson 4**

### **Asking and Answering Questions about *One Well*, “People at the Well” (Pages 16 and 17), Part 2**



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**Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)**

I can ask questions to deepen my understanding of an informational text. (RI.3.1)  
I can answer questions using specific details from an informational text. (RI.3.1)  
I can document what I learn about a topic by taking notes. (W.3.8)

**Supporting Learning Targets**

- I can ask questions to deepen my understanding of “People at the Well.”
- I can answer questions using specific details from “People at the Well.”
- I can document my learning by taking notes about how people use water.

**Ongoing Assessment**

- Student copies of Asking and Answering Questions recording form—with questions (from Lesson 3)
- Back-to-Back, Front-to-Front protocol (based on homework from Lesson 3)



Agenda	Teaching Notes
<ol style="list-style-type: none"><li>1. Opening<ol style="list-style-type: none"><li>A. Engaging the Reader: The Water We Use (13 minutes)</li><li>B. Review the Learning Targets (2 minutes)</li></ol></li><li>2. Work Time<ol style="list-style-type: none"><li>A. Identifying Our New Questions and Thinking (10 minutes)</li><li>B. Documenting Other Important Details (17 minutes)</li><li>C. Listing Important Details about Demands on Water (8 minutes)</li></ol></li><li>3. Closing and Assessment<ol style="list-style-type: none"><li>A. Written Conversation (5 minutes)</li><li>B. Adding to the Researching Text Anchor Chart (5 minutes)</li></ol></li><li>4. Homework<ol style="list-style-type: none"><li>A. Continue reading in your independent reading book and complete your Independent Reading recording form.</li></ol></li></ol>	<ul style="list-style-type: none"><li>• Throughout Module 4, there is less scaffolding: Students access text with greater independence (moving them toward RI.3.10). Having students work independently with a text first will give you a chance to assess their ability to read the text on their own and access the strategies you have been developing throughout the year.</li><li>• Students should be in the same pairs as in Lesson 3 for reading. For other paired activities, consider pairing students randomly.</li><li>• In advance: For homework of Lesson 13 on Unit 1, students were asked to bring a gallon jug. Gather these jugs together someplace where it will be easy for students to see them. (If you seat students in a circle, consider putting the jugs in the middle of the circle at the start of the lesson.)</li></ul>



Lesson Vocabulary	Materials
act out (e.g., perform), pantomime; same vocabulary from the text as in Lesson 3.	<ul style="list-style-type: none"><li>• Gallon containers</li><li>• Water usage table: <a href="http://www.nyc.gov/html/dep/html/residents/wateruse.shtml">http://www.nyc.gov/html/dep/html/residents/wateruse.shtml</a></li><li>• Document camera</li><li>• Asking and Answering Questions recording form (teacher model)</li><li>• White board and marker (one per student; or a piece of scratch paper)</li><li>• Researching Text anchor chart (begun in Lesson 3)</li><li>• Asking and Answering Questions recording form—with questions (from Lesson 3)</li><li>• <i>One Well</i>, “People at the Well” section (book; one per student)</li><li>• Equity sticks</li><li>• Demand for Water anchor chart (new; created by students in Work Time C)</li><li>• Large sticky note or strip of paper and tape for each student</li><li>• Slip of paper for every student</li><li>• Independent Reading recording form (one per student)</li></ul>





Opening	Meeting Students’ Needs
<p><b>A. Engaging the Reader: The Water We Use (13 minutes)</b></p> <ul style="list-style-type: none"><li>• Ask students to review the list of ways people use water that they made for their homework. Invite them to select three specific demands for water that they can <i>act out</i> or silently perform for one another (<i>pantomime</i>).</li><li>• Tell students that they are going to do an activity called</li><li>• Back-to-Back, Front-to-Front. Ask students to stand back-to-back with a partner. Say: “When I say front-to-front, turn around and silently act out your use. Watch what your partner does, too, and call out your guess. The only rule is that you have to stay in the same place. When I say back-to-back, turn around again.”</li><li>• Do two or three rounds of Back-to-Back, Front-to-Front. In each round, call out a few of the uses that you saw.</li><li>• Call students together. Remind them that in the text yesterday, they read a lot about the various demands on water and a few specific facts about how much water some of our common activities take. Say: “If I call your name, take a <b>gallon container</b> and stand up in front of the class. When you think that there are enough students standing to flush the toilet just once, raise your hand.” Call students, one at a time, until you have three or four students standing in front of the class (it takes 3.5 gallons). (If students raise their hands sooner than this, let them know it will require more, and keep calling students.)</li><li>• Once three or four students are standing, ask:<ul style="list-style-type: none"><li>* “Do any of you have a new question or new thinking from seeing this?”</li></ul></li><li>• Call on volunteers to respond. Tell students that like researchers, they are using their new learning to inspire new thinking and questions.</li><li>• If time allows, repeat this activity with other water facts from the <b>water usage table</b>. Select examples that connect to the uses that the students acted out during Back-to-Back, Front-to-Front (i.e., connecting common activities they pantomimed with the number of gallons of water used for a particular activity).</li></ul>	<ul style="list-style-type: none"><li>• If students do not have their homework, ask them to think of three ways they use water so that they can participate in the activity.</li><li>• Model this activity to support visual learners.</li><li>• Activities that incorporate movement support both ELLs and kinesthetic learners.</li></ul>
<p><b>B. Review the Learning Targets (2 minutes)</b></p> <ul style="list-style-type: none"><li>• Direct students to the targets. Point out that they are the same as yesterday’s as the class will be continuing to ask and answer questions about “People at the Well.”</li></ul>	



Work Time	Meeting Students’ Needs
<p><b>A. Identifying Our New Questions and Thinking (10 minutes)</b></p> <ul style="list-style-type: none"><li>Using the <b>document camera</b>, project the <b>Asking and Answering Questions recording form (teacher model)</b>. Point out the last column, “My new questions or thinking.” Say: “Just as you observed the number of gallons various activities take, now you are going to think of new questions or thinking from the details you recorded.”</li><li>Ensure each student has a <b>white board and marker</b>. Let them know that they will have 2 minutes to write down one new question they have, based on the details they recorded.</li><li>When time is up, ask students to hold up their questions. Prompt them to look around the room and to read a few of their classmates’ questions. Ask students to share a few questions they think are particularly strong and why they think these are good questions. Add these ideas to the “Asking NEW questions” section of the <b>Researching Text anchor chart</b>. If needed, restate a few of the stronger questions/statements. Remind students that researchers ask questions that take their thinking deeper, not just any question that pops in their head. They stay away from silly questions (e.g., “Why is the cow black and white?”) and questions that show they need to think more (e.g., “Why did the author include the detail about how much water it takes to make milk?”)</li><li>Have students take out their own copies of the <b>Asking and Answering Questions recording form</b>—with questions (from Lesson 3). Give students 5 minutes to record their questions and new thinking.</li><li>While students are working, write your own questions/thinking in the “My new questions or thinking” section of the recording form. Include the detail about how much water it takes to make a glass of milk. Write: “How much water does it take to make other things?”</li><li>Gather students together. Tell them they are going to share some of their questions, and you would like them to give a thumbs-up each time they hear a question they think could be answered by this text. Call on a few volunteers to share their questions. If students give a thumbs-up at inappropriate times, ask them why they think this question could be answered by the text. Help to clarify their thinking as needed.</li><li>Complete this activity by focusing students on your copy of the Asking and Answering Questions recording form on the document camera. Tell students that as you read your questions/thinking aloud, they should give a thumbs-up if they think it can be answered by the text.</li></ul>	<ul style="list-style-type: none"><li>Mixing partners for the sharing serves two primary purposes: 1) to support the possible sharing of new information and 2) to give students an opportunity to work with someone new. If your class does not easily pair, either have students share with their existing partner or predetermine pairs.</li><li>Have students work with a partner to generate their question.</li></ul>



Work Time (continued)	Meeting Students’ Needs
<p><b>B. Documenting Other Important Details (17 minutes)</b></p> <p><i>Note: Students will need access to <b>One Well</b>, “People at the Well” (pages 16 and 17).</i></p> <ul style="list-style-type: none"><li>• Tell students: “I noticed that many of you thought that my question “How much water does it take to make other things?” could be answered by this text. I think so, too, so I am going to write it in the first column. Take 3 minutes to work with your partner to see if you can find at least one detail to answer this question.”</li><li>• Give students 3 minutes to work; then use <b>equity sticks</b> to call on a student to share the detail he or she found as well as the location. Record these on your recording form (e.g., bike = 34 gallons/¶ 5).</li><li>• Tell students that most of the time their initial questions won’t lead to all the important details that the author wanted to share. Their job is to dig deeply into the text and search for the most important information. If they find an important detail they don’t have a question for, they should just put an “X” in the question column and record the details and any new questions or thinking.</li><li>• Give students about 8 minutes to work independently to continue to record details. Tell them they can ask their partners for help if they need support.</li><li>• As students work, circulate and observe. Make sure they are using the recording form correctly. Ask them questions like:<ul style="list-style-type: none"><li>* “Do you think you can find answers to any of your questions in the text?”</li><li>* “What is another important detail that the author wanted you to know about how people use water?”</li><li>* “Why do you think the author included the detail ‘Water was even used to make the paper for this book—and the ink used to print the words?’”</li></ul></li></ul>	
<p><b>C. Listing Important Details about Demands on Water (8 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students together. Ask them to quickly find a new partner. Tell them to each share one important detail they learned about the demand for water and then decide together which detail they want to add to the <b>Demand for Water anchor chart</b>. Remind students that although there was a lot of interesting information in this text, they should select a detail that will really help others understand the demand for water.</li><li>• Tell students that when they know the important detail they want to share, to give you the silent signal and you will bring them a <b>large sticky note</b> to write their detail on.</li><li>• As students finish writing their details, ask them to add them to the anchor chart. Select a few to read aloud to the class.</li></ul>	



Closing and Assessment	Meeting Students’ Needs
<p><b>A. Written Conversation (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Post the question: “What is one question you have about how researchers ask and answer questions using text?”</li><li>• Pass out a <b>slip of paper</b> to each student. Tell the students: “Write your question and then pass it to your partner from the last activity. When you get your partner’s question, answer it with something you have figured out or ask a new question. Pass the slips of paper back and forth until time is up.”</li></ul>	
<p><b>B. Adding to the Researching Text Anchor Chart (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Call the students together. Ask if they have any new ideas to add to the Researching Text anchor chart for their conversation with their partner. Add these in the appropriate areas.</li></ul>	
Homework	Meeting Students’ Needs
<ul style="list-style-type: none"><li>• Continue reading in your independent reading book and complete your <b>Independent Reading recording form</b>.</li></ul>	



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# Grade 3: Module 4: Unit 2: Lesson 4

## Supporting Materials



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**Researching Text Anchor Chart**  
For Teacher Reference - Adapt Based on Student Responses

*Note:* You will continue to build this anchor chart and use it through the end of the unit. To support the organization of information on this anchor chart, consider including the following bolded headings.

**Researching Text**

**Asking INITIAL questions**

(From previous lesson, answers will vary)

Think about the topic, then ...

- Read the title.
- Look at the pictures.

(May be new additions)

**Answering questions**

(From previous lesson)

Read the fact boxes next to the picture the question is about.

Get the gist of each paragraph and see if it answers the question.

(May be new additions)

**Asking NEW questions**

(Answers will vary)

Ask questions that take your thinking deeper. Avoid silly questions or “how come” questions.

**How does asking and answering questions about text help researchers?**

(Probably not addressed in this lesson; may come up in the closing)



Asking and Answering Questions  
Recording Form Teacher Model

Text: \_\_\_\_\_

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking
<b>How do people use water?</b>	<ol style="list-style-type: none"><li>1. <b>69% = agriculture (grow food, raise animals)</b></li><li>2. <b>At home: baths, cooking, drinking, etc.</b></li><li>3. <b>21% = making things we use (industry)</b></li><li>4. <b>It takes a lot of water to make a glass of milk or fast-food lunch</b></li></ol>	<ol style="list-style-type: none"><li>1. ¶ 4</li><li>2. ¶ 2 and blue boxes</li><li>3. ¶ 3 and yellow box</li><li>4. Purple and pink boxes</li></ol>	
<b>What do animals like cows have to do with water?</b>	<b>49 gallons of water = one glass of milk</b>	<b>Purple box</b>	



Asking and Answering Questions  
Recording Form - Answers for Teacher Reference

**NOTE:** Answers will vary greatly throughout this recording form. Students may use examples from the teacher model (as below), but this is not necessary. Make sure key details are pulled from the text and that the locations correspond to the key details.

Text: \_\_\_\_\_

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking
<b>How do people use water?</b>	<ol style="list-style-type: none"> <li><b>69% = agriculture (grow food, raise animals)</b></li> <li><b>At home: baths, cooking, drinking, etc.</b></li> <li><b>21% = making things we use (industry)</b></li> <li><b>It takes a lot of water to make a glass of milk or fast-food lunch</b></li> </ol>	<ol style="list-style-type: none"> <li><b>¶ 4</b></li> <li><b>¶ 2 and blue boxes</b></li> <li><b>¶ 3 and yellow box</b></li> <li><b>Purple and pink boxes</b></li> </ol>	
<b>What do animals like cows have to do with water?</b>	<b>49 gallons of water = one glass of milk</b>	<b>Purple box</b>	
<b>How much water does it take to make other things?</b>	<b>Bike = 34 gallons</b> <b>fast food lunch= 1375 gallons</b> <b>car = 38,800 gallons</b>	<b>¶ 5 pink box yellow box</b>	<b>Is there a way to use less water to make things?</b>





Asking and Answering Questions  
Recording Form - Answers for Teacher Reference

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking
<b>xx</b>	<b>A billion people eat fish for protein</b>	<b>Green box</b>	<b>What will happen to the fish and the people who eat them if we use up the water making other things?</b>



Independent Reading Recording Form

Name: \_\_\_\_\_

Date: \_\_\_\_\_

<b>Title of Book:</b>	
<b>Pages Read:</b>	

Read your independent reading book. Follow the direction in each section.  
Use this chart to keep track of what you read.

Where	Who	What

**Words**

1. Write one word that struck you because it was a precise word. This could be a verb, or it could be a good adjective, or a describing word.

I think this word is precise because \_\_\_\_\_



Independent Reading Recording Form

2. Write down any word or words you found that you are unsure about.

Words	I think this means



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## **Grade 3: Module 4: Unit 2: Lesson 5**

### **Asking and Answering Questions about *One Well*, “Access to the Well” (Pages 20 and 21)**



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**Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)**

I can ask questions to deepen my understanding of an informational text. (RI.3.1)  
I can answer questions using specific details from an informational text. (RI.3.1)  
I can document what I learn about a topic by taking notes. (W.3.8)

**Supporting Learning Targets**

- I can ask questions to deepen my understanding of “Access to the Well.”
- I can answer questions using specific details from “Access to the Well.”
- I can document my learning by taking notes about how people access water.

**Ongoing Assessment**

- Back-to-Back, Front-to-Front protocol
- Asking and Answering Questions recording form



Agenda	Teaching Notes
<ol style="list-style-type: none"><li>1. Opening<ol style="list-style-type: none"><li>A. Engaging the Reader: Where Do You Get Water? (3 minutes)</li><li>B. Unpacking Learning Targets (2 minutes)</li></ol></li><li>2. Work Time<ol style="list-style-type: none"><li>A. Asking Our Initial Questions (8 minutes)</li><li>B. Reading and Answering Questions about “Access to the Well” (20 minutes)</li><li>C. Answering Questions and Finding Important Details (17 minutes)</li></ol></li><li>3. Closing and Assessment<ol style="list-style-type: none"><li>A. Sharing: Listing Important Details about Access to Water (5 minutes)</li><li>B. Adding to the Researching Text Anchor Chart (5 minutes)</li></ol></li><li>4. Homework<ol style="list-style-type: none"><li>A. Take your gallon container home. Fill it up with water. Set a timer or keep checking the clock for 15 minutes and walk around with your container. (For an added challenge, fill up two containers!) As you walk, think: What is it like to carry the container?</li><li>B. Continue reading your independent reading book and complete your Independent Reading recording form.</li></ol></li></ol>	<ul style="list-style-type: none"><li>• This lesson follows the same pattern as Lessons 3 and 4. (Lessons 3 and 4 are at a slower pace to teach the recording form.)</li><li>• Students should be in their same pairs from Lessons 3 and 4.</li><li>• The text that students read in this lesson offers rich opportunities for math connections. During another part of the day, consider reviewing fractions, large numbers (how much is a billion?), bar graphs and pictograms. Consider a “close reading” of the graph on page 21 during math.</li><li>• The homework asks students to do the physical task of carrying a gallon of water for 15 minutes. If you have students with physical disabilities who may not be able to do this, please make an appropriate modification, such as limiting the time, decreasing the amount of water carried (perhaps to nothing), changing the type of movement (e.g., just standing or sitting instead of walking), or doing another repetitive activity for 15 minutes. Even students who do not do the physical activity should complete the writing, as it will be used in the Opening of Lesson 6.</li><li>• In advance: Find a 10 liter (2.6 gallon) bucket.</li></ul>



Lesson Vocabulary	Materials
document (v); access/accessible, distribution/distributed	<ul style="list-style-type: none"><li>• Timer or stopwatch</li><li>• Researching Text anchor chart (from Lessons 3 and 4)</li><li>• Asking and Answering Questions recording form (one per student)</li><li>• <i>One Well</i> “Access to the Well” (pages 20 and 21)</li><li>• Document camera</li><li>• 10 liter/2.6 gallon bucket</li><li>• Access to Water anchor chart (new; created by students in Closing and Assessment A)</li><li>• Large sticky note (one per pair)</li><li>• Equity sticks</li><li>• Gallon containers (from Lessons 3 and 4)</li><li>• Homework (one copy per student)</li><li>• Independent Reading recording form (one per student)</li></ul>



Opening	Meeting Students’ Needs
<p><b>A. Engaging the Reader: Where Do You Get Water? (3 minutes)</b></p> <ul style="list-style-type: none"><li>• Tell students that they are going to play a game to warm up their brains for this text. Tell them that for this game you are going to give them a question. Explain that you when you share the question with them you would like them to think first, remaining silent. Then, when you give a signal (say go or raise your hand), they should call out as many answers as they can in one minute. Tell them that you will write these answers on the board. Explain that the goal of the game is to come up with as many answer to the question as possible in a minute.</li><li>• Give students the following question:<ul style="list-style-type: none"><li>* “Where do you get water?”</li></ul></li><li>• Give students a few moments to think. Then set a <b>timer</b> for 1 minute or give a student a stopwatch and signal the start of the game.</li><li>• Without commentary, record the ideas that the students call out. When time is up, congratulate students on their list and their teamwork. Say: “You are very lucky. You have a lot of ways to <i>access</i> water.” Remind students that <i>access</i> means “able to use or get.” Give an example of the variant accessible: “Water is very <i>accessible</i> for you.”</li></ul>	
<p><b>B. Unpacking Learning Targets (2 minutes)</b></p> <ul style="list-style-type: none"><li>• Refer students to the learning targets. Say: “Today you will research ‘Access to the Well.’ As you read, you will pull together the skills you learned in the past two lessons to ask your own questions, find the answers, and document your learning by taking notes. This will help you to use this information to deepen your understanding and educate others.”</li></ul>	





Work Time	Meeting Students’ Needs
<p><b>A. Asking Our Initial Questions (8 minutes)</b></p> <ul style="list-style-type: none"><li>• Refer to the <b>Researching Text anchor chart</b>. Remind students of some of the strategies they can use to ask their initial, or first, questions.</li><li>• Distribute the <b>Asking and Answering Questions recording form</b>.</li><li>• Note: do not distribute students’ texts yet.</li><li>• Briefly display pages 20 and 21 of <i>One Well</i> on the <b>document camera</b> and read the title. Then turn off the camera and ask students to complete Part 1 of their recording form.</li><li>• When students have stopped writing questions, ask them to draw a line under their last question. This will help you to evaluate which question students generated before reading. Ask students to set aside their recording forms.</li><li>• Then give them their <i>One Well</i> book.</li></ul>	



Work Time (continued)	Meeting Students’ Needs
<p><b>B. Reading and Answering Questions about “Access to the Well” (20 minutes)</b></p> <ul style="list-style-type: none"> <li>• Tell students that they will have about 8 minutes to whisper read the text with their partner. Tell them if they come across an unfamiliar word to use its context, or the words and ideas nearby, to try to figure it out. If students finish early, tell them that they can reread difficult or unfamiliar words and talk more about them.</li> <li>• Circulate and observe students as they read. Give support with decoding only when absolutely necessary.</li> <li>• Call students together in the whole group area and ask them to sit with their partners. Project the text on the document camera. As you ask each question, indicate the part of the text you are referring to.</li> <li>• Refer to the second paragraph and the word <i>distribution</i>. Tell students: “A few minutes ago you <i>distributed</i> the books and papers.” Remind students that as with the words <i>evaporation</i>, <i>precipitation</i>, and <i>condensation</i>, “-tion” means “the act of.”</li> <li>• Ask: <ul style="list-style-type: none"> <li>* “If <i>distribution</i> is the act of distributing, how could you say the first sentence of Paragraph 2 in your own words?”</li> </ul> </li> <li>• Have students Pair-Share. Listen in and share a few strong examples you hear. (e.g., “Although the amount of water on earth is always the same, the way it flows across the world isn’t.”)</li> <li>• Ask: <ul style="list-style-type: none"> <li>* “What affects the distribution of water?”</li> </ul> </li> <li>• Give students time to Pair-Share then cold call partners to respond. Be sure students reference the text. Listen for ideas like: “the amount of rain that falls” or “the amount of water in lakes, streams, and aquifers.”</li> <li>• Then ask: <ul style="list-style-type: none"> <li>* “How might distribution affect access?”</li> </ul> </li> <li>• Again, give students time to Pair-Share. Then cold call partners to respond. Be sure students refer to the text. Listen for ideas like: “In places where there is not a lot of water from rain and in lakes, people may not be able to get clean water, or they may have to walk a long way to get it.” If students struggle with the relationship between distribution and access say: “Imagine that you got your water from a well or a lake and it dried up. How would you get water?”</li> <li>• Refer to the chart on page 21. Ask: <ul style="list-style-type: none"> <li>* “How many buckets of water does one person in the United States use each day?”</li> </ul> </li> <li>• If needed, remind students that the United States is in North America. Select a volunteer to respond. (The answer is 55 buckets.)</li> </ul>	<ul style="list-style-type: none"> <li>• Consider providing smaller chunks of text (sometimes just a few sentences) for ELLs. Teachers can check in on students’ thinking as they write or speak about their text.</li> <li>• If some students have not yet mastered the speaking and listening standards (3.1 and 3.6), you might consider using the Conversation Criteria checklist from Module 2 to continue gathering data about students’ conversation skills.</li> <li>• When working on questions with the whole class, use a variety of strategies to keep students engaged and ensure they are thinking, such as Think-Pair-Share, cold calling, wait time, silent thumb signals, white boards, etc. If using white boards, you might rephrase some questions to allow students to draw their answers.</li> </ul>



Work Time (continued)	Meeting Students’ Needs
<ul style="list-style-type: none"> <li>• Invite students to continue to focus on that chart. Ask:               <ul style="list-style-type: none"> <li>* “How many buckets of water does one person in Ethiopia use each day?”</li> </ul> </li> <li>• Select a volunteer to respond (1 bucket). Help students understand this by displaying a <b>10 liter/2.6 gallon bucket</b>.</li> <li>• Finally, ask:               <ul style="list-style-type: none"> <li>* “Why do you think people in Ethiopia use so much less water than people in the United States?”</li> </ul> </li> <li>• Give students time to Pair-Share. Then cold call partners to respond. Be sure students refer to the text. Listen for ideas about access to water: “Water must be hard to get in Ethiopia. Here it comes from the faucet.” And on distribution: “It must not rain a lot in Ethiopia. In a lot of places in the United States, it rains a lot. There are a lot of lakes and rivers.” Consider noting for students that even in areas of the United States where there isn’t a lot of rain, people still have access to water. There are lakes to store water called reservoirs and pipes that take the water out of lakes and to water-treatment facilities that clean the water so it comes to your pipes safe and ready to use.</li> </ul>	<ul style="list-style-type: none"> <li>• Consider posting text-dependent questions that are asked to the class orally to support visual learners.</li> </ul>
<p><b>C. Answering Questions and Finding Important Details (17 minutes)</b></p> <ul style="list-style-type: none"> <li>• Direct students’ attention again to the Researching Text anchor chart. Refer to the sections “Answering questions” and “Asking NEW questions.” Remind students that as they complete Part 2 of the Asking and Answering Questions recording form, they should use the skills listed on the anchor chart.</li> <li>• Remind students that sometimes they will have new questions they can answer with details from the text; other times there may be important details in the text that do not connect to their questions. They should be sure to record these details, too.</li> <li>• Invite students to take 15 minutes to complete Part 2 of their Asking and Answering questions recording form independently.</li> <li>• Circulate as students work and provide support as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• If students struggle to complete Part 2 of the recording form, consider one of the following: 1) have students work with a partner, 2) highlight questions for the students to find details to support, 3) give students a location to look for details that will answer their question, 4) give students a location they should use to find details (e.g., Paragraph 3), or 5) provide students with a recording form that already has the questions on it.</li> </ul>



Closing and Assessment	Meeting Students’ Needs
<p><b>A. Sharing: Listing Important Details about Access to Water (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students together. Ask students to quickly find a new partner. Tell students to each share one important detail they learned about accessing clean water and then to decide on which detail they want to add to the <b>Access to Water anchor chart</b>.</li><li>• Tell students that when they know their detail, to give you the silent signal and you will bring them a <b>large sticky note</b> to write their detail on. As students finish writing their details, ask them to add them to the anchor chart. Select a few important details to read aloud to the class. Be sure to point out why some details are particularly important and how they will help others really understand about the importance of access to water. Continue to distinguish between just “interesting” details and “important” details that help researchers understand the big ideas of a topic more fully.</li></ul>	<ul style="list-style-type: none"><li>• Mixing partners for the sharing serves two primary purposes: 1) to support the possible sharing of new information, and 2) to give students an opportunity to work with someone new. If your class does not easily pair, either have students share with their existing partner or predetermine pairs.</li></ul>
<p><b>B. Adding to the Researching Text Anchor Chart (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Ask students:<ul style="list-style-type: none"><li>* “How does asking and answering questions about a text help researchers?”</li></ul></li><li>• Give students a moment to think, and then ask them to share their thoughts with their partner from the previous activity.</li><li>• After students have shared, use equity sticks to select a few students to share. Record ideas on the Researching Text anchor chart.</li><li>• Explain the homework.</li></ul>	<ul style="list-style-type: none"><li>• Post the question or refer to it on the anchor chart to support visual learners.</li><li>• Provide a sentence frame to support ELLs.</li></ul>



Homework	Meeting Students’ Needs
<ul style="list-style-type: none"><li>• Take your <b>gallon container</b> home. Fill it up with water. Set a timer or keep checking the clock for 15 minutes and walk around with your container. (For an added challenge, fill up two containers!) As you walk, think: What is it like to carry the container? If you had to walk to water and carry it back a few times every day, what else might you NOT have the time or energy to do? What would this be like if it was hot, cold, rainy, or windy? When you are done, set a timer again and write a story about your experience for 15 minutes on the <b>homework sheet</b> provided.</li><li>• Continue reading your independent reading book and complete your <b>Independent Reading recording form</b>.</li></ul>	<ul style="list-style-type: none"><li>• The homework asks students to do the physical task of carrying a gallon of water for 15 minutes. If you have students with physical disabilities who may not be able to do this, make an appropriate modification, such as limiting the time, decreasing the amount of water carried (perhaps to nothing), changing the type of movement (e.g., just standing or sitting instead of walking), or doing another repetitive activity for 15 minutes. Even students who do not do the physical activity should complete the writing, as it will be used in the opening of Lesson 6.</li></ul>



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LEARNING

# Grade 3: Module 4: Unit 2: Lesson 5

## Supporting Materials



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Asking and Answering Questions Recording Form

Text: \_\_\_\_\_

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking



Asking and Answering Questions Recording Form  
For Teacher Reference

**Note:** The first and fourth columns are likely to vary greatly. Look for key details from the text (aligned to appropriate questions) and accurate text locations. If a student has a reasonable question that the text did not address, this is not a problem. In that case, the student should not write anything in the boxes for Part 2.

Text: **“Access to the Well”**

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking
<b>What does it mean to have access to the well?</b>	<b>You can turn on the tap to get water. You have water to meet your needs.</b>	<b>Paragraph 1</b>	<b>What happens when people don’t have access to water?</b>
<b>Who has access to the well?</b>	<b>People in North America have the most. 1/5 of the world’s population does not have enough water. 300 million people in Africa don’t have enough water.</b>	<b>Graph Paragraph 3 Beige fact box</b>	<b>Why do some people have more access to water than others?</b>
<b>What happens when people don’t have access to water?</b>	<b>1 billion people have to walk 15 minutes or more to get water.</b>	<b>Paragraph 1</b>	<b>What do people do when they don’t have enough water? What do they go without? What happens when they run out?</b>
<b>xx</b>	<b>A billion people eat fish for protein</b>	<b>Green box</b>	<b>What will happen to the fish and the people who eat them if we use up the water making other things?</b>





## Researching Text Anchor Chart

For Teacher Reference; Adapt to Suit, Based on Student Responses

**Note:** Students started building this anchor chart in Lesson 3. In this lesson, they add information to the last section.

### Researching Text

#### Asking INITIAL questions

Think about the topic, then ...

- Read the title.
- Look at the pictures.

#### Answering questions

(From previous lesson)

Read the fact boxes next to the picture the question is about.

Get the gist of each paragraph and see if it answers the question.

#### Asking NEW questions

(Answers will vary)

Ask questions that take your thinking deeper. Avoid silly questions or “how come” questions.

#### How does asking and answering questions about text help researchers?

(Probably not addressed in this lesson; may come up in the closing)



Homework

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**Name:**

---

**Date:**

---

1. Take your gallon container home. Fill it up with water. (For an added challenge, fill up two containers!)
2. Read these questions:
  - What is it like to carry the container?
  - What would it be like if it was hot, cold, rainy, or windy?
3. If you had to walk to water and carry it back a few times every day, what else might you NOT have the time or energy to do?
4. Set a timer or keep checking a clock for 15 minutes and walk around with one or two containers. As you walk, think about the questions.
5. Put your containers down and get ready to write about your experiences. Again think about the questions above. Imagine that you have to carry water every day. Write a story about your life. Be sure to refer to yourself as “I” (for example, “In the morning, when I walk to the well ...”).
6. When you are ready, set the timer for 15 minutes again. Write about these questions in the space below for the full 15 minutes.

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**Note:** You just spent 30 minutes on this homework—the same amount of time it takes 1 billion people, or 16%, of the earth’s population to get to the nearest water supply and back. (*One Well*, p. 20.)



Independent Reading Recording Form

Name:

Date:

<b>Title of Book:</b>	
<b>Pages Read:</b>	

Read your independent reading book. Follow the direction in each section.  
Use this chart to keep track of what you read.

Where	Who	What



Independent Reading Recording Form

Words

1. Write one word that struck you because it was a precise word. This could be a verb, or it could be a good adjective, or a describing word.

---

---

I think this word is precise because

---

---

2. Write down any word or words you found that you are unsure about.

Words	I think this means



EXPEDITIONARY  
LEARNING

## **Grade 3: Module 4: Unit 2: Lesson 6**

### **Asking and Answering Questions about *One Well*, “Pollution in the Well” (Pages 24 and 25)**



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**Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)**

I can ask questions to deepen my understanding of an informational text. (RI.3.1)  
I can answer questions using specific details from an informational text. (RI.3.1)  
I can document what I learn about a topic by taking notes. (W.3.8)

**Supporting Learning Targets**

- I can ask questions to deepen my understanding of “Pollution in the Well.”
- I can answer questions using specific details from “Pollution in the Well.”
- I can document my learning by taking notes about water pollution.

**Ongoing Assessment**

- Asking and Answering Questions recording form
- Homework from Lesson 5



Agenda	Teaching Notes
<ol style="list-style-type: none"><li>1. Opening<ol style="list-style-type: none"><li>A. Engaging the Reader: Circle Poem from Homework (8 minutes)</li><li>B. Unpacking Learning Targets (2 minutes)</li></ol></li><li>2. Work Time<ol style="list-style-type: none"><li>A. Quiz-Quiz-Trade (5 minutes)</li><li>B. Asking Our Initial Questions (5 minutes)</li><li>C. Reading and Answering Questions about “Pollution in the Well” (15 minutes)</li><li>D. Answering Questions and Finding Important Details (15 minutes)</li></ol></li><li>3. Closing and Assessment<ol style="list-style-type: none"><li>A. Sharing: Listing Important Details about Pollution (10 minutes)</li></ol></li><li>4. Homework<ol style="list-style-type: none"><li>A. Reread “Pollution in the Well” and answer the questions.</li><li>B. Research things you can do to prevent water pollution.</li></ol></li></ol>	<ul style="list-style-type: none"><li>• Students should be in their same pairs from Lessons 3–5.</li><li>• In the Opening of this lesson, students create a “circle poem” to review last night’s homework. Students will not publish these poems; however, consider extending this activity to create a formal piece of writing that documents their learning.</li><li>• In advance: Prepare Quiz-Quiz-Trade cards. You will need one card for each student. Copy cards on card stock. Cut them apart and fold so that the words and definitions are back-to-back. You may choose to make your own cards with the definitions commonly used in your classroom or to add additional cards. Students could also use their flash cards from Lesson 3.</li></ul>



Lesson Vocabulary	Materials
<p>habitat, species, wildlife</p> <p>From earlier in Unit 2: pollution, pollute (Lesson 1); chemicals, agriculture, industry, livestock, produce, society/societies (Lesson 3)</p> <p>From Unit 1: runoff, evaporate, precipitation</p>	<ul style="list-style-type: none"> <li>• Quiz-Quiz-Trade cards (one card per student)</li> <li>• Power Word/Water Words anchor chart</li> <li>• Asking and Answering Questions recording form (one per student)</li> <li>• <i>One Well</i>, “Pollution in the Well” (pages 24 and 25) (book; one per student)</li> <li>• Document camera</li> <li>• Water Challenges anchor chart (new, created by students in Closing and Assessment A)</li> <li>• Large sticky note (one per pair)</li> <li>• Homework (one per student)</li> </ul>

Opening	Meeting Students’ Needs
<p><b>A. Engaging the Reader: Circle Poem from Homework (8 minutes)</b></p> <ul style="list-style-type: none"> <li>• Ask students to review their homework and to underline the most powerful sentence they wrote. Call students together. Tell them they are going to create a “circle poem.”</li> <li>• Invite students to stand in a circle with their papers. Explain that each student will each read just his/her one sentence, in order to create a class poem.</li> <li>• Select a student to begin.</li> <li>• After students complete this circle poem, ask a few volunteers to share their experiences with the homework or the poem.</li> </ul>	
<p><b>B. Unpacking Learning Targets (2 minutes)</b></p> <ul style="list-style-type: none"> <li>• Call students together with their partners. Refer the students to the learning targets. Tell them that just as they have done in the previous lessons, they will read a new text and take note as they ask and answer questions. In today’s lesson they will research “Pollution in the Well.”</li> </ul>	





Work Time	Meeting Students’ Needs
<p><b>A. Quiz-Quiz-Trade (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Tell students that they are going to play a round of Quiz-Quiz-Trade to review some of the words that are in the text they will be reading today.</li><li>• Remind the class how to play. Say:<ul style="list-style-type: none"><li>* “I am going to give each of you a card. Show the word on your card to a partner. Your partner will tell you the definition. It’s OK if your partner doesn’t get it exactly right. You can help by sharing the definition on the back of the card. Then the other partner tells a definition. Once you have both had a turn, trade cards and find a new partner.”</li></ul></li><li>• Pass out one <b>Quiz-Quiz-Trade card</b> to each student. Give students 4 to 5 minutes to quiz and trade.</li><li>• After students have engaged in the activity for 4 to 5 minutes, gather the students together. Ask:<ul style="list-style-type: none"><li>* “Did you notice any words we have not talked about before?”</li></ul></li><li>• Confirm that <i>wildlife</i> and <i>habitat</i> are words that are not yet on the <b>Power Words/Water Words anchor chart</b>, but that they may remember them from “River to the Sea”. Add wildlife and habitat to the Power Words section of the anchor chart.</li></ul>	<ul style="list-style-type: none"><li>• For Quiz-Quiz-Trade, consider pairing ELLs with a partner who speaks their home language.</li><li>• If some students have not yet mastered the speaking and listening standards (3.1 and 3.6), you might consider using the Conversation Criteria checklist from Module 2 to continue gathering data about students’ conversation skills.</li><li>• When working on questions with the whole class, use a variety of strategies to keep students engaged and ensure they are thinking, such as Think-Pair-Share, cold calling, wait time, silent thumb signals, white boards, etc. If using white boards, you might rephrase some questions to allow students to draw their answers.</li><li>• Consider posting text-dependent questions that are asked to the class orally to support visual learners.</li></ul>



Work Time (continued)	Meeting Students’ Needs
<p><b>B. Documenting Other Important Details (17 minutes)</b></p> <ul style="list-style-type: none"><li>• Distribute the <b>Asking and Answering Questions recording form</b>.</li><li>• Briefly display pages 24 to 25 of <i>One Well</i> on the <b>document camera</b> and read the title. Turn off the camera and ask students to complete Part 1.</li><li>• As students work, distribute the <i>One Well</i> books. Make sure students have written questions and have drawn a line under their last questions before giving them a book. This will help you to evaluate which questions students generated before reading. Ask students to set aside their recording forms.</li></ul>	<ul style="list-style-type: none"><li>• Consider providing smaller chunks of text (sometimes just a few sentences) for ELLs. Teachers can check in on students’ thinking as they write or speak about their text.</li></ul>



Work Time (continued)	Meeting Students’ Needs
<p><b>C. Reading and Answering Questions about “Pollution in the Well” (15 minutes)</b></p> <ul style="list-style-type: none"> <li>• Tell students that they will have about 8 minutes to whisper read the text with their partner. Tell them that there may be some unfamiliar words and that they should try to figure them out from the words in the text. If students finish early, tell them they can reread difficult or unfamiliar words and talk more about them.</li> <li>• Circulate and observe students as they read. Give support only with decoding when absolutely necessary.</li> <li>• Draw the attention of students and their partners to the text on the document camera. As you ask each question, indicate the part of the text you are referring to. Ask the following questions to ensure that students comprehend the vocabulary in the text.</li> <li>• Ask a volunteer to read aloud the second sentence in Paragraph 2. Then ask:             <ul style="list-style-type: none"> <li>* “Which words are examples of chemicals? From the words in this sentence, what can you figure out about these chemicals?”</li> </ul> </li> <li>• Give students time to Pair-Share, then cold call partners to respond. Be sure students are using examples from the text. Listen for ideas like: “Pesticides, fertilizers, and detergents are types of chemicals. I think they must come from the ground at farms since they are carried by runoff into lakes and rivers and the other example is about streets.” Note: It’s not essential that students can define each of these terms, only that they know they are chemicals carried across land and into water.</li> <li>• Ask a volunteer to read aloud the last two sentences of the third paragraph. Then ask:             <ul style="list-style-type: none"> <li>* “What does the phrase ‘threatens the health of many species and habitats’ mean? How could you explain this in your own words?”</li> </ul> </li> <li>• Again give students time to Pair Share, then cold call partners to respond. Be sure students are using examples from the text. Listen for ideas like: “It means that water pollution can make the places animals live dirty and make the animals sick.”</li> </ul>	<ul style="list-style-type: none"> <li>• If students struggle to complete Part 2 of the recording form, consider one of the following: 1) have students work with a partner, 2) highlight questions for the students to find details to support, 3) give students a location to look for details that will answer their question, 4) give students a location they should use to find details (e.g., Paragraph 3), or 5) provide students with a recording form that already has the questions on it.</li> </ul>
<p><b>D. Answering Questions and Finding Important Details (15 minutes)</b></p> <ul style="list-style-type: none"> <li>• Ask students to return to their Asking and Answering questions recording forms. Tell students that they will have about 15 minutes to complete Part 2 of the form. Remind them that there may be important details in the text that do not connect to their questions. They should be sure to record these details, too.</li> <li>• Circulate as students work and provide support as needed. After 10 minutes, give students a 5-minute warning.</li> </ul>	



Closing and Assessment	Meeting Students’ Needs
<p><b>A. Sharing: Listing Important Details about Pollution (10 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students together. Ask them to quickly find a new partner. Invite students to each share one interesting detail they learned about water pollution and then to decide which detail they want to add to the <b>Water Challenges anchor chart</b>. Tell students that when they know their detail, they should give you the silent signal and you will bring them a <b>large sticky note</b> to write their detail on.</li><li>• As students finish writing their details, ask them to add them to the anchor chart. Select a few to read aloud to the class.</li><li>• Explain the homework.</li></ul>	<ul style="list-style-type: none"><li>• Mixing partners for the sharing serves two primary purposes: 1) to support the possible sharing of new information, and 2) to give students an opportunity to work with someone new. If your class does not easily pair, either have students share with their existing partner or predetermine pairs.</li></ul>
Homework	Meeting Students’ Needs
<ul style="list-style-type: none"><li>• Reread “Pollution in the Well” and answer the questions.</li><li>• Research things you can do to prevent water pollution:<ul style="list-style-type: none"><li>* Interview someone in your family. Ask them what they know about water pollution and what one thing they think we should do to help prevent water pollution.</li><li>* Create or bring a visual to accompany their answer about the one thing they can do to prevent water pollution.</li></ul></li></ul> <p><i>Note: Students will need One Well “Pollution in the Well” (pages 24 to 25) to complete Homework A. Students will share Homework B in the Opening of Lesson 7. If you are concerned that families/students may not have ideas about how they can help prevent water pollution, suggest that they work together to conduct Internet research on the topic or refer them to: <a href="http://www.northforkaudubon.org/conservation/local-preservation/80-10-things-you-and-your-family-can-do-to-prevent-water-pollution">http://www.northforkaudubon.org/conservation/local-preservation/80-10-things-you-and-your-family-can-do-to-prevent-water-pollution</a>.</i></p>	



EXPEDITIONARY  
LEARNING

# Grade 3: Module 4: Unit 2: Lesson 6

## Supporting Materials



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Quiz-Quiz-Trade Cards

<b>Pollution</b>	Dirt, chemicals, trash, and other things that make air, water, or land dirty
	Putting dirt, chemicals, trash, and other things into air, water, or land to make them dirty
	Water that runs downhill on its way to rivers, streams, etc.
<b>Pollute</b>	
<b>Runoff</b>	
<b>Evaporate</b>	Water vapor that rises into the air
<b>Precipitation</b>	Rain, snow, sleet, and other water droplets that fall from the sky
<b>Habitat</b>	The place where a plant or animal lives



Quiz-Quiz-Trade Cards

<b>Wildlife</b>	<b>Wild animals</b>
	<b>A specific type of animal like snakes</b>
	<b>Useful, man-made products that can make water dirty</b>
<b>Species</b>	
<b>Chemical(s)</b>	
<b>Agriculture</b>	<b>Businesses that grow plants and raise animals for food</b>
<b>Industry</b>	<b>Businesses that make things like milk and cars in factories</b>
<b>Produce</b>	<b>Make something</b>



Quiz-Quiz-Trade Cards

<b>Society/Societies</b>	A group of people; a community
<b>Livestock</b>	Horses, cow, sheep, and other useful animals that are raised for food, materials (like wool), or to work





Asking and Answering Questions Recording Form

Text: \_\_\_\_\_

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking



Asking and Answering Questions Recording Form  
For Teacher Reference

Text: **“Access to the Well”**

Part 1		Part 2	
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking
<b>What causes water pollution?</b>	<ul style="list-style-type: none"> <li>• <b>Chemicals go into the water from runoff.</b></li> <li>• <b>Pollution from factories and cars goes into the air.</b></li> <li>• <b>Pollution in the air can pollute rain and snow (acid rain/snow).</b></li> </ul>	<b>Paragraph 2/text box</b>	<b>How can factories and cars make less pollution?</b>
<b>Why is pollution a problem?</b>	<ul style="list-style-type: none"> <li>• <b>It makes people sick (80% of all illnesses are caused by pollution!).</b></li> <li>• <b>It can hurt plants and animals.</b></li> </ul>	<b>Paragraph 3</b>	<b>What happens when people get sick from dirty water?</b>
<b>x</b>	<b>The water cycle helps clean the earth’s water.</b>	<b>Paragraph 1</b>	<b>Why do some chemicals make acid rain and others get left behind? Which chemicals are the really bad ones? Do we have to use them?</b>

**Note:** The first and fourth columns are likely to vary greatly. Look for key details from the text (aligned to appropriate questions) and accurate text locations. If a student has a reasonable question that the text did not address, this is not a problem. In that case, the student should not write anything in the boxes for Part 2.



Homework

A. Reread “Pollution in the Well” and answer the questions.

Paragraph 3 explains problems caused by polluted water **except**:

- a. Many people get sick from using polluted water.
- b. Wildlife or animals get sick from polluted water.
- c. Polluted water can hurt habitats or the places where plants and animals live.
- d. Polluted lakes, streams, and shorelines look dirty and ugly.

2a. How can the movement of water through the water cycle **HELP** make water cleaner or less polluted?

- a. Everything is a lot cleaner after it rains.
- b. When water evaporates, dirt and chemicals are left behind.
- c. Runoff from backyards, city streets, and farms flows into lakes, rivers, and streams.
- d. Sometimes pollution mixes with precipitation and it turns into acid rain or acid snow.

2b. Where did you find the information to answer this question?

- a. Paragraph 1
- b. Paragraph 2
- c. Paragraph 3
- d. The boxes with the illustrations

3a. How can the movement of water through **the land** and the water cycle make water pollution **WORSE**? (Hint: There may be more than one correct answer.)

- a. Everything is a lot cleaner after it rains.
- b. When water evaporates, dirt and chemicals are left behind.
- c. Runoff from backyards, city streets, and farms flows into lakes, rivers, and streams.
- d. Sometimes pollution mixes with precipitation and it turns into acid rain or acid snow.

3b. For each answer you selected, indicate the paragraph number or text box that supports your answer.

B. Research things you can do to prevent water pollution:

- Interview someone in your family. Ask them what they know about water pollution and what one thing they think we should do to help prevent water pollution.
- Create or bring a visual to accompany their answer about the one thing they can do to prevent water pollution.



Homework  
For Teacher Reference

A. Reread “Pollution in the Well” and answer the questions.

Paragraph 3 explains problems caused by polluted water **except**:

- a. Many people get sick from using polluted water.
- b. Wildlife or animals get sick from polluted water.
- c. Polluted water can hurt habitats or the places where plants and animals live.
- d. Polluted lakes, streams, and shorelines look dirty and ugly.**

2a. How can the movement of water through the water cycle **HELP** make water cleaner or less polluted?

- a. Everything is a lot cleaner after it rains.
- b. When water evaporates, dirt and chemicals are left behind.**
- c. Runoff from backyards, city streets, and farms flows into lakes, rivers, and streams.
- d. Sometimes pollution mixes with precipitation and it turns into acid rain or acid snow.

2b. Where did you find the information to answer this question?

- a. Paragraph 1**
- b. Paragraph 2
- c. Paragraph 3
- d. The boxes with the illustrations

3a. How can the movement of water through **the land** and the water cycle make water pollution **WORSE**? (Hint: There may be more than one correct answer.)

- a. Everything is a lot cleaner after it rains.
- b. When water evaporates, dirt and chemicals are left behind.
- c. Runoff from backyards, city streets, and farms flows into lakes, rivers, and streams.**
- d. Sometimes pollution mixes with precipitation and it turns into acid rain or acid snow.**



**Homework**  
For Teacher Reference

3b. For each answer you selected, indicate the paragraph number or text box that supports your answer.

**The problem of dirty runoff (C) is described in Paragraph 2. The beige fact boxes with the illustration told about acid rain and snow (D).**

B. Research things you can do to prevent water pollution:

- Interview someone in your family. Ask them what they know about water pollution and what one thing they think we should do to help prevent water pollution.
- Create or bring a visual to accompany their answer about the one thing they can do to prevent water pollution.



EXPEDITIONARY  
LEARNING

## **Grade 3: Module 4: Unit 2: Lesson 7**

### **Mid-Unit Assessment:** Asking and Answering Questions about Having Enough Clean Water for Everyone



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**Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)**

I can ask questions to deepen my understanding of an informational text. (RI.3.1)  
I can answer questions using specific details from an informational text. (RI.3.1)  
I can document what I learn about a topic by taking notes. (W.3.8)

**Supporting Learning Targets**

- I can ask questions to deepen my understanding of “Demands on the Well.”
- I can answer questions using specific details from “Demands on the Well.”
- I can document my learning by taking notes about demands on water.

**Ongoing Assessment**

- Homework A: Questions about “Pollution in the Well”
- Homework B: Visual of one thing to do about water pollution
- Mid-Unit 2 Assessment: Asking and Answering Questions about Having Enough Clean Water for Everyone
- Tracking My Progress, Mid-Unit 2 recording form



Agenda	Teaching Notes
<ol style="list-style-type: none"><li>1. Opening<ol style="list-style-type: none"><li>A. Engaging the Reader: Preventing Water Pollution (5 minutes)</li><li>B. Unpacking Learning Targets (5 minutes)</li></ol></li><li>2. Work Time<ol style="list-style-type: none"><li>A. Mid-Unit 2 Assessment: Asking and Answering Questions about “Demands on the Well” (40 minutes)</li></ol></li><li>3. Closing and Assessment<ol style="list-style-type: none"><li>A. Sharing New Words (5 minutes)</li><li>B. Tracking My Progress (5 minutes)</li></ol></li><li>4. Homework<ol style="list-style-type: none"><li>A. In the first half of this unit we have studied the challenges of access, pollution, and demands on water. Which challenge are you most interested in? Why? What questions do you have about this challenge?</li></ol></li></ol>	<ul style="list-style-type: none"><li>• Because this is a reading assessment, do not read the text aloud.</li></ul>





Lesson Vocabulary	Materials
<p>dam</p> <p>Do not pre-teach assessment vocabulary.</p>	<ul style="list-style-type: none"> <li>• Water Challenges anchor chart (from Lesson 6)</li> <li>• <i>One Well</i> “Demands on the Well” (pages 22 and 23)</li> <li>• Mid-Unit 2 Assessment: Asking and Answering Questions about Having Enough Clean Water for Everyone (one per student)</li> <li>• Document camera</li> <li>• Power Words/Water Words anchor chart</li> <li>• Tracking My Progress, Mid-Unit 2 recording form (one per student)</li> </ul>

Opening	Meeting Students’ Needs
<p><b>A. Engaging the Reader: Preventing Water Pollution (5 minutes)</b></p> <ul style="list-style-type: none"> <li>• Ask students to put the visual from their homework on their desks. Tell them that in a moment they are going to have a silent Gallery Walk to look at these visuals and then share what they represent about ways we can address the challenge of water pollution.</li> <li>• Remind students that during a Gallery Walk they should look, but they should not talk or touch. Tell students they will have about 2 minutes to look closely at four or five visual representations of their choice.</li> <li>• Call students together. Ask: <ul style="list-style-type: none"> <li>* “What are some of the things we can do to prevent water pollution?”</li> </ul> </li> <li>• Ask students to share out. Add new ideas to the <b>Water Challenges: Pollution anchor chart</b>.</li> </ul>	<ul style="list-style-type: none"> <li>• If students are accustomed to activities like the Gallery Walk, let them view objects in their own order, at their own pace. If students need more structure, consider having students share with a small group or “snake” slowly through the classroom in line to view the visual representations.</li> </ul>
<p><b>B. Unpacking Learning Targets (5 minutes)</b></p> <ul style="list-style-type: none"> <li>• Refer students to the learning targets. Tell students that today they will read a new text, “<b>Demands on the Well</b>,” and complete the mid-unit assessment by asking and answering questions.</li> <li>• Emphasize that there is no “trick” to this assessment. Students will simply be doing the same kind of thinking they have been doing, asking and answering questions throughout this part of the unit.</li> </ul>	



Work Time	Meeting Students' Needs
<p><b>A. Mid-Unit 2 Assessment: Asking and Answering Questions about “Demands on the Well” (40 minutes)</b></p> <ul style="list-style-type: none"><li>• Distribute the <b>Mid-Unit 2 Assessment: Asking and Answering Questions about Having Enough Clean Water for Everyone</b>.</li><li>• Point out the directions at the top of the assessment:<ol style="list-style-type: none"><li>1. Complete Part 1 of the recording form by asking your own initial questions about “Demands on the Well.” Draw a line under your last question.</li><li>2. Read the text: <i>One Well</i>, “Demands on the Well” (pages 22 and 23).</li><li>3. Reread the text. Complete Part 2 with details from the text, text location, and any new questions or thinking.</li><li>4. Complete Part 3 of the recording form: Answer the two questions.</li></ol></li><li>• Briefly display pages 22 and 23 of <i>One Well</i> on the <b>document camera</b> and read the title. Turn off the camera and ask students to complete Part 1.</li><li>• As students complete Part 1, pass out the <i>One Well</i> books. Make sure that students have written questions and have drawn a line under their last questions before giving them a book. This will help you to assess which questions students generated before reading.</li><li>• Give students 35 minutes to complete the remainder of the assessment. Circulate to observe test-taking strategies and record observations for future instruction. For example, are students going back to the text to look for answers? Do they appear to be reading the text completely before beginning the assessment? This information can be helpful in preparing students for future assessments and standardized tests.</li><li>• For students who finish early, possible extensions include rereading the text, reading their independent reading book, or illustrating another fact box from page 22 of <i>One Well</i>.</li><li>• Collect students’ mid-unit assessments to formally assess.</li></ul>	<ul style="list-style-type: none"><li>• Consider focusing struggling readers on a limited amount of text.</li><li>• Consider setting a time limit for these students or asking them to read only the second paragraph, “Rivers often start in the mountains ...”</li><li>• Provide extra time for ELLs and other students to complete this assessment.</li></ul>



Closing and Assessment	Meeting Students' Needs
<p><b>A. Sharing New Words (5 minutes)</b></p> <ul style="list-style-type: none"><li>Gather students together. Project Question 2a of Part 3 on the document camera. Read this question aloud, then tell students:<ul style="list-style-type: none"><li>* “Put up a finger for the answer you chose: 1 for a, 2 for b, etc.”</li></ul></li><li>Call on a student who had the correct answer (c) and ask how he or she figured out the answer. Add this word to the Water Words section of the <b>Power Words/Water Words anchor chart</b>.</li><li>Ask students to share any other words that they figured out by reading this text. Add any new words to the correct section of the anchor chart.</li></ul>	
<p><b>B. Tracking My Progress (5 minutes)</b></p> <ul style="list-style-type: none"><li>Gather students together. Explain that the mid-unit assessment they completed today is a wonderful way to show what they have learned as readers. Congratulate them on their focus and hard work.</li><li>Distribute the <b>Tracking My Progress, Mid-Unit 2 recording form</b> to students. Explain that this is a chance for them to think about how well they are doing meeting the target of asking and answering questions about text.</li><li>Give students a few minutes to complete the Tracking my Progress form and then collect these forms.</li></ul>	
Homework	Meeting Students' Needs
<ul style="list-style-type: none"><li>In the first half of this unit we have studied the challenges of access, pollution, and demands on water. Which challenge are you most interested in? Why? What questions do you have about this challenge?</li></ul> <p><i>Note: Hold on to students' Tracking My Progress forms. They will share them during the Opening of Lesson 8.</i></p>	



EXPEDITIONARY  
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# Grade 3: Module 4: Unit 2: Lesson 7

## Supporting Materials



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**Mid-Unit 2 Assessment: Asking and Answering Questions about Having Enough Clean Water for Everyone**

**Directions:**

1. Complete Part 1 of the recording form by asking your own initial questions about “Demands on the Well.” Draw a line under your last question.
2. Read the text: *One Well*, “Demands on the Well” (pages 22 and 23).
3. Reread the text. Complete Part 2 with details from the text, text location, and any new questions or thinking.
4. Complete Part 3 of the recording form: Answer the two questions.

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking



Mid-Unit 2 Assessment: Asking and Answering Questions about Having Enough Clean  
Water for Everyone

Part 3: Text-Dependent Questions

1. (a) What is the main idea of this text?
  - A. There are a growing number of people on earth.
  - B. We need to balance our need for water and how much water there is.
  - C. Animals like pigs, sheep, and goats use a lot of water.
  - D. Cities are getting bigger and bigger to fit all the people.
  
1. (b) Which detail best supports the main idea?
  - A. “A growing population means we need more space.”
  - B. “While *dams* make more water available, they also change the flow of rivers and damage habitats.”
  - C. “Pavement and concrete block rainwater from refilling underground water supplies.”
  - D. “By 2025, many experts predict that one out of every four people will likely live in a country that is short of water.”
  
2. (a) The blue fact box on page 23 reads, “While *dams* make water available, they also change the flow of rivers and damage habitats.” What word or phrase could best replace *dams* in this sentence?
  - A. Wells
  - B. Pipes
  - C. Reservoirs (man-made lakes that hold water for drinking)
  - D. Buckets
  
2. (b) Which paragraph does this caption best support?
  - A. Paragraph 1
  - B. Paragraph 2
  - C. Paragraph 3
  - D. Paragraph 4



Tracking My Progress

Mid-Unit 2

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Learning target:** I can identify the evidence the author uses to support an opinion.

1. Target in my own words:

---

---

---

---

2. How am I doing? Circle one.

**I need more help to  
learn this.**



**I understand some  
of this.**



**I am on my way!**



3. Evidence to support my self-assessment:

---

---

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Mid-Unit 2 Assessment: Asking and Answering Questions about Having Enough Clean Water for Everyone  
(Answers, for Teacher Reference)

**Directions:**

1. Complete Part 1 of the recording form by asking your own initial questions about “Demands on the Well.” Draw a line under your last question.
2. Read the text: *One Well*, “Demands on the Well” (pages 22 and 23).
3. Reread the text. Complete Part 2 with details from the text, text location, and any new questions or thinking.
4. Complete Part 3 of the recording form: Answer the two questions.

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking
<b>What are the demands on the well?</b>	<b>More people; everyone is using more water Animals</b>	<b>Paragraph 1/picture Green fact box</b>	<b>How could people use less water?</b>
<b>Why does the picture show so many people?</b>	<b>To remind us that ALL the people on earth are sharing the same well</b>	<b>Paragraph 3 and picture</b>	<b>Could we run out of water here?</b>
	<b>With more people, we need more land.</b>	<b>Paragraph 2</b>	<b>What was here before my city?</b>
	<b>People, industry, and agriculture all use the same water. With more people, we need more businesses and farms.</b>	<b>Paragraph 3</b>	<b>How can we use less water?</b>

*Note: Questions and answers are likely to vary greatly. Keep the standards in mind as you assess. These answers are provided only as an example. If a student has a reasonable question the text did not address, this is not a problem. In that case, the student should not write anything in the boxes for Part 2.*





Mid-Unit 2 Assessment: Asking and Answering Questions about Having Enough Clean  
Water for Everyone  
(Answers, for Teacher Reference)

Part 3: Text-Dependent Questions

1. (a) What is the main idea of this text?
  - A. There are a growing number of people on earth.
  - B. **We need to balance our need for water and how much water there is.**
  - C. Animals like pigs, sheep, and goats use a lot of water.
  - D. Cities are getting bigger and bigger to fit all the people.
  
1. (b) Which detail best supports the main idea?
  - A. “A growing population means we need more space.”
  - B. “While dams make more water available, they also change the flow of rivers and damage habitats.”
  - C. “Pavement and concrete block rainwater from refilling underground water supplies.”
  - D. **“By 2025, many experts predict that one out of every four people will likely live in a country that is short of water.”**
  
2. (a) The blue fact box on page 23 reads, “While *dams* make water available, they also change the flow of rivers and damage habitats.” What word or phrase could best replace *dams* in this sentence?
  - A. Wells
  - B. Pipes
  - C. **Reservoirs (man-made lakes that hold water for drinking)**
  - D. Buckets
  
2. (b) Which paragraph does this caption best support?
  - A. Paragraph 1
  - B. Paragraph 2
  - C. **Paragraph 3**
  - D. Paragraph 4



EXPEDITIONARY  
LEARNING

# **Grade 3: Module 4: Unit 2: Lesson 8**

## **Independent Research: The Challenges to Having Enough Clean Water for Everyone**



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**Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)**

- I can conduct a research project to become knowledgeable about a topic. (W.3.7)  
I can determine the main idea of an informational text. (W.3.2)  
I can retell key ideas from an informational text. (W.3.2)

**Supporting Learning Targets**

- I can ask and answer questions about the text I choose in order to build my knowledge about one specific challenge related to having enough clean water for everyone.
- I can identify key facts and details about my challenge topic.

**Ongoing Assessment**

- Asking and Answering Questions recording form, with text attached



Agenda	Teaching Notes
<ol style="list-style-type: none"><li>Opening<ol style="list-style-type: none"><li>Engaging the Reader: Share Tracking My Progress (5 minutes)</li><li>Unpacking Learning Targets (5 minutes)</li></ol></li><li>Work Time<ol style="list-style-type: none"><li>Launching Independent Research (10 minutes)</li><li>Researching with Research Buddies (30 minutes)</li></ol></li><li>Closing and Assessment<ol style="list-style-type: none"><li>Sharing within Research Teams (5 minutes)</li><li>Sharing across Research Teams (5 minutes)</li></ol></li><li>Homework</li></ol>	<ul style="list-style-type: none"><li>This lesson formally launches students' research. This research is designed for students to be fairly independent, in the sense that the teacher is not guiding every step of the research process. Students are driving their own inquiry process, asking their own questions, and choosing from a sampling of articles to read to build their knowledge. However, these research lessons include multiple structures to scaffold students' work, and students are not doing the research by themselves.</li><li>As detailed in the unit overview, some texts are provided to students in this series of lessons. However, there are two other critical factors. First, provide additional texts for students using the suggestions in the unit overview. Secondly, students should independently gather information that is connected to their research topic. Students can do this by reviewing the additional texts provided by you. They can search the Table of Contents to determine if that particular text would have information about their research topic. They can also scan the titles of the additional resources provided. The important aspect is that students are gathering resources and information with some independence—based on their questions.</li><li>If there is ready access to technology or if the school's media specialist is available, consider planning lessons to guide students in finding additional texts or web-based materials to support their research in Lessons 8–10.</li><li>In this lesson, students begin working with a research buddy. The lesson asks students to recall their work in partnerships from Module 3A (when they read <i>Peter Pan</i>). If students did not experience that module, remind them about how partnerships work together: We sit next to each other and read on our own, but we have someone next to us to help us if we are stuck. We can talk to someone about what we have read.</li><li>In advance: Review Launching Research Teams (for teacher reference in supporting materials). This is a more detailed note outlining the research process students will undertake in the next few lessons.</li><li>As stated in the teaching note at the end of Lesson 7, assign students to one of the three research topics: demand for water, access, or pollution. Within each of these research teams, assign students to a research buddy. This buddy will be their main working partner. Students will use their research teams at the end of lessons to share what they have discovered (see Unit 2 Overview for details).</li><li>Prepare research texts: eight copies of each text in each of the three categories. See Launching Research Teams for details.</li></ul>



Agenda	Teaching Notes (continued)
	<ul style="list-style-type: none"><li>• Some students might finish reading their research article early. So be sure that there are texts available from the recommended text list. Consider placing a stack of the recommended texts in a basket or other container and place in the whole group area so students can easily access it.</li><li>• Identify one area of the classroom for each of the three research topics.</li><li>• Prepare a chart paper or paper for display on the document camera for the closing: What did you learn today about your topic?</li></ul>

Lesson Vocabulary	Materials
specific, identify	<ul style="list-style-type: none"><li>• Launching Research Teams (for teacher reference)</li><li>• Tracking My Progress, Mid-Unit 2 recording forms (one per student, from Lesson 7)</li><li>• Equity sticks</li><li>• Independent research directions (one per student)</li><li>• Research texts in folders: eight copies of each text (for Lessons 8, 9, and 10)</li><li>• Asking and Answering Questions recording form</li><li>• Water journal (one per student)</li><li>• Independent Reading recording form (one per student)</li></ul>



Opening	Meeting Students' Needs
<p><b>A. Engaging the Reader: Share Tracking Your Progress (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students in the whole group area. Distribute their <b>Tracking Your Progress, Mid-Unit 2 recording forms</b> from their mid-unit assessment. Tell students that before they get started today on their independent research, they will take a moment to reflect upon their progress with a partner.</li><li>• Using <b>equity sticks</b>, assign students to partnerships. Ask students to remain in the whole group area but to sit next to their new partner.</li><li>• Give students a few minutes to share their tracking progress forms. As students are sharing, circulate among the students and listen to their reflections.</li><li>• After students have had a few minutes to share, refocus students' attention. Share a few specific things you heard from students as they were talking together. This could sound like: "I heard many of you talking, giving specific examples about how you met the target. Using specific details is important when you think about how you are meeting a target."</li><li>• Emphasize to students why they use and reflect on learning targets in their work. This could sound like: "The reason we have learning targets is to help focus our learning together and give each of us specific things we can do to deepen our learning. Let's now take a look at our targets for today."</li></ul>	
<p><b>B. Unpacking Learning Targets (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Invite one or two students to share the targets for today.</li><li>• Ask students to talk to a person next to them:<ul style="list-style-type: none"><li>* "Based on these targets, what will we be doing today?"</li></ul></li><li>• Give students a moment to think and share together.</li><li>• Then, invite one or two partnerships to share their thinking. If students haven't brought it up, remind them that the targets are things they have worked on in other lessons.</li><li>• Explain to students that the targets are new in the sense that today they will apply their work to their own independent research.</li></ul>	



Work Time	Meeting Students' Needs
<p><b>A. Launching Independent Research (10 minutes)</b></p> <ul style="list-style-type: none"> <li>Remind students that they selected a particular challenge they wanted to know more about in the previous lesson. Tell students that for the next few lessons, they are going to get to find out more about one of these challenges on their own. They will have a research buddy to support their reading.</li> <li>Ask them:             <ul style="list-style-type: none"> <li>* “How did you and your partner work together as you read ?”</li> </ul> </li> <li>Give students time to think, then talk together, recalling their partnerships in Module 3A.</li> <li>Use equity sticks to call on a few students to share their thinking with the whole group. Listen for students to recall that they talked with their buddy about what they read, about hard words, and to find details about characters.</li> <li>Assign students their research challenge team and buddy. Ask students to move and sit facing their research buddy. Ask:             <ul style="list-style-type: none"> <li>* “What kinds of questions do you have about your water challenge? What do you want to learn about this challenge?”</li> </ul> </li> <li>Give buddies a minute to talk together.</li> <li>Then invite a few students to share:             <ul style="list-style-type: none"> <li>* “What questions did your partner have?”</li> <li>* “What did your partner say s/he wants to learn?”</li> </ul> </li> <li>Then, display the <b>independent research directions</b>. Invite a few volunteers to read aloud the steps.</li> <li>Once the steps have been read aloud, ask students to consider:             <ul style="list-style-type: none"> <li>* “How do these steps relate to the reading work we have been doing all year long?”</li> </ul> </li> <li>Give them a moment to talk to their partner again.</li> <li>Using equity sticks, cold call a few students to share out. Guide students to notice that the pattern: “Read,” “Write,” “Think,” and “Talk” are the basic steps in this research process. Explain that this document will be with them while they are working to support their independent work.</li> <li>Explain that each research team will have a <b>folder</b> with a variety of informational <b>research texts</b> (eight copies of each text) about their water challenge and that their first task will be to think about which text they want to read.</li> </ul>	<ul style="list-style-type: none"> <li>Strategic partnerships is the first support for struggling learners in this research process. As outlined in the module overview and the unit overview, students should be in supportive partnerships.</li> <li>Struggling learners also benefit from visual symbols on their Independent Research Directions. Students will use this document throughout the next three lessons. Placing symbolic representation on the directions will provide an easy reference. (For example, place a pair of glasses symbol next to the phrase “preview the text,” or a next to the Asking and Answering Questions recording form, or two faces talking to each other next to “talk to your buddy” etc.).</li> </ul>



Work Time (continued)	Meeting Students' Needs
<p><b>B. Researching with Research Buddies (30 minutes)</b></p> <ul style="list-style-type: none"> <li>Assign an area in the classroom in which each of the research teams can work. Students will be only working with their research buddy once they select their text, but for ease in conferring, have the research teams gathered in the same general area. Be sure that there is a research folder for each team at one of the tables in their area. Spread the texts out so that students can preview them. Invite students to move with their research buddy to select a text.</li> <li>Give students a few minutes to preview their texts. Circulate around the tables. Guide partners with their text selection. When students are previewing the texts, guide them with the following types of prompts:             <ul style="list-style-type: none"> <li>* “Check the title of the text. Does it sound like this might answer some of your questions?”</li> <li>* “Scan the text. Are the graphics and photos interesting and do they provoke your curiosity?”</li> <li>* “Talk to your partner about what the text might be about.”</li> </ul> </li> <li>Once each pair of students has selected a text, ask them to review the Independent Research Directions and get their <b>Asking and Answering Questions recording forms</b> out before they start reading. After students have settled with their texts and had a minute to review the directions, focus their attention whole group. Using thumbs-up, check for understanding of directions: thumbs-up if they are clear on next steps, thumbs-down if not.</li> <li>Scan the room and confer with students who have questions.</li> <li>As students read their texts with their research buddies, circulate and confer with partnerships. Ask questions about their process in order to assess how they are doing with their text. Examples of questions could be:             <ul style="list-style-type: none"> <li>* “Let’s look at your recording form—what have you captured so far?”</li> <li>* “Tell me a specific detail you have learned in this text about your water challenge ... why did you select that detail to record?”</li> <li>* “How’s it going with your text? Tell me what you are finding out about your challenge ... can you show me where you found that information?”</li> </ul> </li> <li>The goal here is to get a sense of what information students are learning from the texts they are reading.</li> </ul>	<ul style="list-style-type: none"> <li>Guide struggling learners as they select texts. Support them in choosing from the texts supplied, or the texts you have gathered, a text that will be easier for them to navigate; i.e., text features that are more obvious and support making meaning, text that is less complex, text that is shorter, etc.</li> <li>Once partnerships have selected a text, support struggling learners by having them read a smaller chunk of the text first and recording their key details.</li> <li>Confer with these partnerships first during the research time. Provide support by guiding their work. Read a passage aloud and ask them to tell you the key details they heard. Direct them to write that down. Give them a focus question to think about as they read the next section on their own. This focus question should relate to the text they are reading, and help them to find information in the text.</li> </ul>





Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"><li>• As needed, pull smaller groups if you see that students are struggling with a specific article. Support them:<ul style="list-style-type: none"><li>* Check to see what they do understand from the article.</li><li>* Read a short passage aloud and ask specific questions about the key details in the passage.</li><li>* Unpack vocabulary together, supporting them to collaboratively figure out the word in context.</li><li>* Provide a brief mini lesson about finding details in the text.</li></ul></li><li>• There are a few options for students who might finish early.<ol style="list-style-type: none"><li>1. Research buddies may select another text from the research folder to begin reading.</li><li>2. They can each choose to read their independent reading book.</li><li>3. They can each select a text from the recommended text list to read together or on their own.</li></ol></li></ul>	<ul style="list-style-type: none"><li>• Provide specific time periods for struggling learners within the 30-minute timeframe. For example, explain to students that in 10 minutes you are going to check on them again and they should be at a specific point in their reading, ready to talk about the details they have found.</li></ul>



Closing and Assessment	Meeting Students' Needs
<p><b>A. Sharing within Research Teams (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Bring students back together in the whole group area and ask research buddies to find another pair of buddies within their same research team. Display on chart paper or document camera the following question: What did you learn today about your topic? Give students a few minutes to share with each other in their foursomes.</li></ul>	
<p><b>B. Sharing across Research Teams (5 minutes)</b></p> <ul style="list-style-type: none"><li>• After students share with their foursomes, ask research buddies to stand up and find a new pair who has a different research topic. Have them sit back down together in their new group. Ask students to share the same question with their new foursome, hearing new learning about another topic.</li><li>• Once students have shared, invite students to put their recording forms with the text attached in their <b>water journals</b>. Collect these journals to review at the end of the day.</li></ul>	
Homework	Meeting Students' Needs
<ul style="list-style-type: none"><li>• Share with someone in your family what you learned today as a result of your research. Tell them about the most interesting specific details you learned about your topic. Ask someone in your family: "What do you know about this challenge?"</li><li>• Continue to read your independent reading book and complete the <b>Independent Reading recording form</b>.</li></ul>	



EXPEDITIONARY  
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# Grade 3: Module 4: Unit 2: Lesson 8

## Supporting Materials



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### Independent Research Questions

1. Review the informational texts in the folder. Choose a text that you want to read today.
2. Preview the text: Look at the text features of that text (headings, bold words, pictures, captions, call out boxes).
3. Using your Asking and Answering Questions recording form, think about what questions you have right now. Record those questions.
4. On your own, or with your research buddy, read the text all the way through.
5. Think about what you have read and learned.
6. Talk to your buddy about what you have read and learned.
7. Reread the article for key details and facts that help you understand your specific water challenge more. On your recording form, write these key details.
8. Talk to your research buddy about the most important information about your topic. On your recording form, write that information.

If you and your buddy finish the text you chose before the end of work time, there are a few options for you:

1. Choose a new article from the research folder to begin reading.
2. Read your independent reading book.
3. Choose a book from the ones gathered in the whole group area. Scan the Table of Contents to see whether that book might have information about your research topic.



Asking and Answering Questions  
Recording Form

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking

**Part 3: Quick Write**

What is the most important information for people to know about this topic?

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Asking and Answering Questions  
Recording Form – Student Sample

Part 1	Part 2		
My Initial Question	Key Details from the Text	Text Location	New Questions or Thinking
How does water become so polluted?	Animal manure washes with the rainwater and then pollutes the stream.	Muddy Waters Paragraph 5	How many farmers do what Reed did to try to keep their manure from going into streams?
What happens when water is polluted?	Manure makes algae grow. That blocks the light for plants. Plants die.	Paragraph 7	XXXX
XXXXXX	Not enough oxygen in the water can make the fish die, too. It can be a dead stream or lake.	Paragraph 7 Picture and caption	Can you see the dead zone just by looking at it?
XXXXXX	Sediment pollution makes water murky and makes it smell and taste bad.	Paragraph 9	Can water be cleaned once the algae are in there?

**Part 3: Quick Write**

What is the most important information for people to know about this topic?

Farms can cause pollution in the water. The waste from the animals washes off the fields into streams and lakes. This can even make a dead zone in the stream.

**Launching Research Teams**  
For Teacher Reference

**Research Teams**

Lessons 8, 9, and 10 are dedicated to students conducting a short research project. The intent of these lessons is to give students the opportunity to build their knowledge about one particular challenge to clean water with greater independence. Research gives students the opportunity to apply the reading skills they have built all year.

While this research is intended to be independent, students are in three research teams about the topics of access, pollution, and demands for water. The number of students within each team will depend on the number of students in the class. This design is based on twenty-four students, three teams, eight students per team. If the class is bigger, consider creating small teams within the three research topics. Within those research teams, students will have a research buddy. Research buddies are a support structure. Students will use their buddies to talk together about the text they are reading. The buddy structure is similar to their Peter Pan reading partnership from Module 3. This structure encourages inquiry about their topics through their discussion and work together. The bigger research teams allow students to further build their knowledge by checking in with other research buddy pairs about what they discovered.

During the work time for research, circulate and confer strategically. Start with one research team at a time, pulling the whole group together for more modeled practice if needed. Monitor how students are working through the text together. Try to spend 10 minutes per group conferring and checking for understanding.

Ask students questions about their reading, specifically questions that require them to find details in their text and require them to tell you what new knowledge they are building about their topic. Ask students to identify specific passages in the text that surprised them or that raised a new question.

Launching Research Teams  
For Teacher Reference

**Preparing Texts for Research Teams**

Directions: Information regarding texts for student research can be found below. Print eight copies of each article and place in appropriate folder so that there are enough copies for each person in that team. Add additional articles that you have selected from your library or your own resource searching in these folders. Students will choose one of the articles to read in each lesson.

A. Some texts are not web-based; those are provided in the supporting materials:

- **Access:** *A World Thirsty for Clean Water* By: Aftalo-Calderon, Brigitte, Faces (07491387), 07491387, Mar2007, Vol. (L820)  
“Crisis in East Africa,” *Scholastic News*, Edition 4, 2006 (L910)  
“Water Pump” (provided in supporting documents separately)
- **Pollution:** “3 Big Pollutants” (provided in supporting documents separately)  
“Keep Earth’s Water Clean,” *Weekly Reader*, Edition 2, 2004 (L950)  
“Where are these pollutants coming from?” (provided in supporting documents separately)  
“Toxic Water is Poisoning the People of Bangladesh” By: Tucker, Libby, *Science World*, 4/17/2006, Vol. 62 Issue 13
- **Demands For Water:** “A Dwindling River,” *Scholastic Super Science*, 2003 (L830)  
“Dry Times,” *Scholastic News*, Edition 4, 2003 (L870)  
“Dry Run,” *Current Science; Weekly Reader*, 2007 (L950)

B. Most texts are listed in the chart below.



Launching Research Teams  
For Teacher Reference

Title	Citation
A Dwindling River	"A Dwindling RIVER" By: Jango-Cohen, Judith, <i>Scholastic SuperScience</i> , 1010144X, Oct2007, Vol. 19, Issue 2
Toxic Water is Poisoning the People of Bangladesh	"Toxic Water is Poisoning the People of Bangladesh" By: Tucker, Libby, <i>Science World</i> , 4/17/2006, Vol. 62 Issue 13
A River at Risk	"A River at Risk" <i>Scholastic News</i> -- Edition 4, 07360592, 2/18/2013, Vol. 75, Issue 16
A World Thirsty for Clean Water	<i>A World Thirsty for Clean Water</i> By: Aftalo-Calderon, Brigitte, Faces (07491387), 07491387, Mar2007, Vol. 23, Issue 7
Crisis in East Africa	"Crisis in East Africa" By: Harvey, Mary, <i>Scholastic News</i> Edition 4, 07360592, 4/17/2006, Vol. 68, Issue 22
Dry Run	"Dry Run" By: Geiger, Beth, <i>Current Science</i> 00113905, 9/7/2007, Vol. 93, Issue 1
Dry Times	"Dry Times" By: Smith, Natalie, <i>Scholastic News</i> Edition 4, 07360592, 9/17/2012, Vol. 75, Issue 3
Keep Earth's Water Clean	Keep Earth's Water Clean. <i>Weekly Reader</i> Edition 2. 4/2/2004, Vol. 73 Issue 23, p1–3. 3p. 8
Let's Get Physical	"Let's Get Physical!" <i>Junior Scholastic</i> , 00226688, 3/12/2007, Vol. 109, Issue 14
Muddy Waters	"Muddy Waters" By: Jozefowicz, Chris, <i>Current Science</i> , 00113905, 2/26/2010, Vol. 95, Issue 12
Water Worries	"Water Worries" <i>Weekly Reader News</i> Edition 3. 4/23/2010, Vol. 79 Issue 22, p3–3. 1p

**Launching Research Teams**  
For Teacher Reference

Title of Text/Website	Best Links
USGS Website	<a href="http://ga.water.usgs.gov/edu/">http://ga.water.usgs.gov/edu/</a>  <a href="http://ga.water.usgs.gov/edu/watercycle-kids.html">http://ga.water.usgs.gov/edu/watercycle-kids.html</a>  <a href="http://ga.water.usgs.gov/edu/photo-gallery.html">http://ga.water.usgs.gov/edu/photo-gallery.html</a>
NY State Department of Environmental Conservation	<a href="http://www.dec.ny.gov/about/865.html">http://www.dec.ny.gov/about/865.html</a>  <a href="http://www.dec.ny.gov/education/63069.html">http://www.dec.ny.gov/education/63069.html</a> NY Watershed Map  <a href="http://www.dec.ny.gov/lands/26561.html">http://www.dec.ny.gov/lands/26561.html</a> Watersheds, Lakes and Rivers  <a href="http://www.dec.ny.gov/education/51515.html">http://www.dec.ny.gov/education/51515.html</a>
EPA Kids Page	<a href="http://water.epa.gov/aboutow/owow/kids.cfm">http://water.epa.gov/aboutow/owow/kids.cfm</a>
Water Education	<a href="http://www.watereducation.org/doc.asp?id=1022">http://www.watereducation.org/doc.asp?id=1022</a>
FOSS Science Water	<a href="http://fossweb.schoolspecialty.com/delegate/ssi-foss-ucm/ucm?dDocName=D1424929">(http://fossweb.schoolspecialty.com/delegate/ssi-foss-ucm/ucm?dDocName=D1424929)</a>
The Water Project	<a href="http://thewaterproject.org/resources/the_water_cycle.asp">http://thewaterproject.org/resources/the_water_cycle.asp</a> .

# Water World

## How kids are helping to solve the world's water shortage

In the dusty yard outside their school, children cling to a new red, green, and yellow merry-go-round as it spins round and round. The younger kids laugh and hang on tight as an older boy runs to give the wheel another push. It may sound like a scene you'd see at any playground, but those children in Africa aren't just enjoying a period of recess. Each spin on their merry-go-round is also pumping up valuable water for their entire community from a well deep underground.

When you turn on your faucet at home or school, you expect clean water to pour out. But more than a billion people around the world, especially in Africa and Asia, struggle to get enough clean water for drinking, cooking, cleaning, and bathing. "The minimum amount of water required to meet these basic

household needs is 20 to 50 liters (5 to 13 gallons) per person per day," says Sandra Postel, director of the Global Water Policy Project in Massachusetts. That's not much when you consider that the average person in the U.S. uses roughly

378 L (100 gal) per day—more water than anywhere else in the world. With water covering 70 percent of Earth's surface, why isn't there enough to go around? Almost all of this water is found in oceans; it is not freshwater that people can drink.

### webextra

Get involved: World Water Day is March 22, 2007. Find out more about this year's theme, "Coping with Water Scarcity," at: [www.unwater.org/wwd07/tushindex.html](http://www.unwater.org/wwd07/tushindex.html)



**CHILD'S PLAY:** Kids have fun and help draw water by playing on a PlayPump.

# Water World

As for the tiny fraction of drinkable water, it takes a lot of money and effort to build and maintain enough pipes, sewers, and water treatment plants to deliver it to all the citizens of a country. "The problem has more to do with poverty and governments' lack of will to provide access to water for everyone," says Postel.

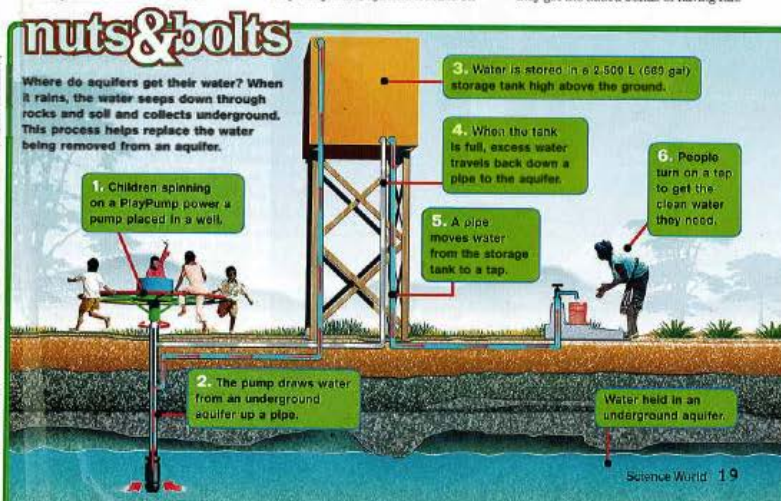
### KID POWER

By drilling into the ground, people can tap into a hidden resource—

water held between underground layers of rock or soil. These *aquifers* contain 40 percent more freshwater than all lakes, rivers, and streams combined. Reaching this groundwater may require a hole to be drilled as deep as 305 meters (1,000 feet) below Earth's surface. This well can provide safe, reliable water to people who live far from any streams or lakes.

The merry-go-round used by students in South Africa is part of the PlayPump water system. It relies on

kid-power to draw water up a pipe from a drilled well (see *Nuts & Bolts*, below). You don't have to be very strong to get the water flowing, says Marissa Valdez, a program manager for the nonprofit organization PlayPumps International in Washington, D.C. "One woman could draw up water with just a few spins of the merry-go-round." But when kids take a turn on one of the more than 800 PlayPump systems installed in Africa (see map, p. 18), they get the added bonus of having fun.



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## Three Big Pollutants

### Three Big Pollutants

For the waterbodies listed as IMPAIRED in the *National Water Quality Inventory*, top pollutants causing problems are dirt, bacteria, and nutrients.

#### 1 Dirt

That's right, dirt. Dirt was listed as a leading cause of pollution in our rivers and streams. When rain washes dirt into streams and rivers, it smothers the little critters in the stream and kills any fish eggs clinging to rocks. Dirt can also clog the gills of fish, suffocating them. Have you ever walked into a pond or lake and noticed huge swirls of muck rising up and clouding your view of the bottom? Well, if the plants that use the sun to make food (yes, that's right, **photosynthesis**) can't get enough sunlight because the water is murky, they die.

##### Where does all this dirt come from?

Most of the dirt washing into lakes and streams comes from activities that remove trees and shrubs and leave the earth exposed. This exposed earth includes fields that have just been plowed, construction sites that have been bulldozed, and areas that have been logged or mined. Bare patches in your lawn or ballfield can also contribute to the problem. Some of the dirt polluting streams comes from the stream banks. The problem is that fast-moving water erodes the banks of streams. The water moves faster because the vegetation that would slow it down has been replaced with pavement and buildings.

##### What's being done to control dirt?

The solution is to stop the dirt from getting into the stream in the first place by disturbing the land as little as possible. Farmers are using different methods to grow their crops so they leave less earth exposed, and they plant grasses in fields that aren't being used. Construction workers are putting up silt fences and hay bales to trap the dirt and contain it while they build. Developers can design new home sites that leave more natural areas and less pavement to reduce the amount of earth they disturb.

#### 2 Bacteria

Bacteria are a big water quality problem in our nation's waters. Not all bacteria are harmful (yogurt contains live bacteria cultures!), but the presence of some indicator bacteria is a clue that other germs and viruses that can make you sick might be in the water too.

##### Where do the bacteria come from?

The major sources of bacteria are **combined sewers** (which can overflow in a rainstorm and dump untreated sewage directly into our waters) and runoff of animal waste (including wild animal droppings!) from farmland and city streets.

##### What's being done to control bacteria?

Cities and towns are improving their sewage systems to keep untreated sewage from overflowing. Farmers are developing better ways to manage livestock manure. Dog owners are picking up after their pets (yes, dog waste pollutes too).

#### 3 Nutrients

Nutrients were listed as the number one cause of water quality pollution in our lakes, ponds, and reservoirs. They caused impairment in more than 3.8 million acres! (That's more than 2.9 million football fields!) The two most common nutrients are nitrogen and phosphorus, which cause algae to grow and can turn the water green.

##### Where do nutrients come from?

The major sources of nutrients are runoff of fertilizers and animal waste from farms and cities (lawn fertilizers can wash away in heavy rain), sewage treatment plants, and failing **septic systems**.

##### What's being done to control nutrients?

Farmers are learning new ways to apply fertilizers and manage livestock. Homeowners are being educated about maintaining their lawns and septic systems. Cities and towns are fixing their sewage treatment plants.

6



PlayPumps:  
A New Invention Turns Work into Play

For kids in many rural parts of Africa, the colorful PlayPump is the first playground equipment they've ever seen. When they give a push and jump onboard for their first ride, smiles of wonder break out on their faces.

The fun of whirling in a circle is just part of the amazement. This incredible invention doesn't just change their playtime, it changes their lives.

As the merry-go-round spins, it pumps clean water up from deep underground and stores it in a huge tank. People are welcome to come and help themselves to the water.

In rural Africa, clean water is a luxury. Most people don't have plumbing in their homes. Instead, they often must walk long distances to wells and haul heavy containers of water back.

Patricia Molohe, 17, explains that before her South African village got a PlayPump, people would pay a taxi driver to take them to a far-off well. "Sometimes the taxi drivers were busy, and we would have to go without bathing in order to save our water. It was too far to walk there. But now we have our own clean water in our village, and life is better."

The exhausting chore of carrying water traditionally falls to women and girls. Hauling water for miles—and hours—each day is such a big job, it sometimes prevents girls from being able to attend school.

Thanks to the PlayPump, getting water is quick and easy—and even boys join in. The pumps have become a center of social activity where kids and adults gather to visit while collecting water.

Two sides of each tank carry educational messages that remind people about good health practices like battling germs through hand-washing. The other two sides carry advertisements, which help pay for the pump's upkeep.

So far, more than 800 PlayPumps are operating in schools and communities in four African countries, providing water for almost two million people. The pumps are made by a South African company called Outdoor Fabrication and Steelworks. Another company, Roundabout Outdoor, trains local teams who maintain the pumps. Each system costs U.S. \$14,000.



**PlayPumps:  
A New Invention Turns Work into Play**

Twelve-year-old Siyabulisiwe Khumalo lives in a South African community called Diepsloot. She says, “I have seen many kinds of water pumps where I grew up in the farmlands, but never one that stores the water. When I grow up, I want to be an inventor so I can invent clever things like the PlayPump that will help my community.”

**Fast Facts:**

- Many toilets use more water in one flush than most rural families in Africa have for one day of cleaning, cooking, drinking, and bathing.
- The average distance an African villager must walk to a water source is five miles (eight kilometers).
- A five-gallon (19-liter) container can weigh about 40 pounds (18 kilograms), and many women and girls suffer injuries carrying so much weight every day.
- A child dies somewhere in the world every 15 seconds from a water-borne illness.
- The PlayPump can pump up to 370 gallons (1,400 liters) of clean water an hour.



## Where Are These Pollutants Coming From

### Where are These Pollutants Coming From?

True or false? Factories are the major source of pollutants in our waters.

False. Thirty years ago that statement was true, but since then we've made a lot of progress cutting down on pollution from factories and sewage treatment plants. Although these can still pollute in some areas, today most of the problems in our waters comes from **polluted runoff** draining into rivers, lakes, and bays after a rain storm. Rain washing over the landscape carries dirt, oil, fertilizer, pesticides, animal waste and many other substances off streets and farms and into our waters.

As we pave over natural areas to make parking lots, driveways and roads (known as **impervious** surfaces) the rainwater doesn't slowly soak into the ground like it used to. Instead it's channeled into gutters, culverts, and storm drains. These tend to be convenient places for people to illegally dump used motor oil, trash, and yard waste. These pollutants then are whisked directly into our streams, wetlands, bays, and lakes.

Areas where water can slowly soak into the ground are described as **pervious**. Pervious areas include lawns, fields, wooded areas, and even brick walkways and gravel driveways that allow rainwater to soak in.

And there's more. All over the country, streams have been straightened and physically altered to flow in a certain direction; some have been lined with concrete. This makes water rush faster after a rainstorm (increasing erosion) and makes it difficult or impossible for plants and aquatic





## A World Thirsty for Clean Water

The water in the village where Maria and her family live is bad. Her younger brother got so sick from drinking it that he almost died. Maria's job is to collect clean water, and her family depends on it. She walks six miles to the river and back — twice a day! Seven-year-old Maria no longer attends school. She has no choice.

Can you imagine missing school because you had to spend all day collecting water? You probably don't even think about water. In the United States, as in any other developed country, water is safe and plentiful. But for millions of people from developing countries, finding clean water remains a major problem.

Unclean or unsafe water is dangerous to your health. Unlike clean, potable water that doesn't contain any pollutants, unsafe water has not gone through a purification process. It carries contaminants — bacteria, viruses, fungi, minerals, or man-made chemicals — that can cause serious disease. Countries with the least access to safe water are among the poorest in the world and are located in Asia and sub-Saharan Africa. These nations visually lack the means to build or buy specialized machines that purify water. As a result, their populations are left with no other choice but to use unsanitary water.

Unsafe water remains the most common cause of sickness and death in poor countries. Illnesses due to bad water are called "water-related diseases." Diarrheal disease is the most serious one. It spreads through water infected with human or animal feces. Individuals become sick by drinking such water or eating food washed with it.

Diarrheal diseases affect mostly children, particularly children under the age of five. Every year, more than a million children die after being exposed to water infected with feces. In general, children are more vulnerable than adults to water-related diseases because children's bodies are not fully developed, so they have less resistance to serious illness. Also, in proportion to their weight, children eat more, drink more, and breathe more than adults do, making the contaminants swallowed or breathed in more dangerous.

What happens when children get sick? They miss school and the opportunity to learn. Later on, when they are grownups, they may have difficulty finding a good job. They'll get poorer, their families will get poorer, and their country will get poorer. And so on it goes.

But there is some good news. The world is now taking action. International aid organizations, including the United Nations and the World Bank, are lending money for projects that clean water in some of the poorest areas of the world. Aid groups have pledged to cut the number of people living with unclean water in half by 2015. One important way to achieve this objective is through education.





## A World Thirsty for Clean Water

Everyone needs to be aware of this worldwide problem, and everyone can be part of the solution. This includes you. Don't wait: Start spreading the news today.

PHOTO (COLOR): Clean water — plentiful here in the United States, but a rarity in too many places throughout the world.

PHOTO (COLOR): Dirty water carries diseases and is a primary source of health problems in many places.

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By Brigitte Aftalo-Calderon

Brigitte Aftalo-Calderon divides her time between the United States and France. Before becoming a writer, she worked for the World Bank, an international organization that specializes in lending money to poor countries.

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## EARTH

**W**ho pulled the plug on Lake Powell in southern Utah? A chalk-white “bathtub ring” marks the level that the water once reached, 30 meters (100 feet) above the current surface.

And why are so many Las Vegas residents ripping up their lawns? The grass removed in the last several years would cover almost 1,500 football fields.

The disappearing water and grass are just a few signs of the severe drought that has parched much of the southwestern United States since 1999. The question now is: When will the drought end, or—as some experts believe—will it become permanent?

### DRY SUBJECT

A *drought* is a long period of abnormally low precipitation. “It can occur anywhere, any year, even in a rain forest,” says Mark Svoboda, a climatologist with the National Drought Mitigation Center.

A drought usually is caused by a shift in ocean temperature thousands of miles away. Most climatologists believe that cooler-than-average

Pacific Ocean temperatures near the equator cause droughts in the U.S. Southwest. That cooling of Pacific Ocean water, called *La Niña*, occurs every three to five years. It changes the direction that moisture-carrying storms travel, diverting them from the Southwest. “La Niña starves the U.S. Southwest of winter moisture,”



Rocky Anderson, the mayor of Salt Lake City, Utah, shows off his home's drought-resistant front yard.

says Gregg Garfin, a University of Arizona climatologist.

The Atlantic Ocean seems to be contributing to the current dry spell too, adds Garfin. The northern Atlantic has been warmer than normal, further diverting storms away from the Southwest.

### THIN RINGS

How bad is this drought? Bad! says Malcolm Hughes, an expert in *tree rings* and climate at the University of Arizona. A tree adds a layer of new tissue to its trunk every year. Because trees grow more slowly during drought years, their new growth rings are thinner than.

Measuring tree rings, Hughes has traced the Southwest's climate back more than 1,000 years. So far, he says, the worst drought occurred in the 1580s. “But this one may be going beyond that,” he told *Current Science*. For example, between May 2005 and May 2007, most of Arizona received from 25 to 80 percent below the normal precipitation.

Droughts are nothing new to the Southwest. But cities as big as Phoenix and Las Vegas are. Even before the drought set in, residents acted as if there was enough water to go around, though there wasn't. “The average Las Vegas home was putting 73 gallons of water on each square foot of lawn every year,” says Doug Bennett, conservation manager for the Southern Nevada Water Authority.

Bennett's agency has helped Las Vegans kick some of their wasteful habits. It pays home owners to tear out water-sucking grass and replace it with desert plants. The program has saved 64 billion liters (17 billion gallons) of water—enough

# Dry Run

Will the drought gripping the U.S. Southwest ever end?

by Beth Geiger

Nov. 2, 2007 CURRENT SCIENCE





## Dry Run

to fill more than 190,000 Olympic-sized swimming pools—since 2000.

Measures like that have enabled Las Vegas and other southwestern cities to cope so far with the drought. But what if it never ends? What if a drier climate becomes the norm?

### THE NEW NORMAL

A recent study says that's just what will happen. The study, led by Richard Seager of the Lamont-Doherty Earth Observatory in New York, was published in April.

Seager compared 19 computer models that forecast how global warming will affect the Southwest's climate. A computer model is a computer program that analyzes how various factors—for example, wind patterns, air temperature, and rainfall—influence one another. Eighteen of the 19 computer models said the same thing: "On average, by the end of the century, people in the Southwest will see a 10 to 20 percent reduction in rainfall compared with the present," explains Yochanan Kushnir, one of Seager's coauthors. "There is remarkable agreement between the different models."

Global warming, says Seager, will change a wind pattern called the *Hadley Cell*. The Hadley Cell is a conveyor belt for air that connects the tropics with subtropical regions. Air within the Hadley Cell rises in the tropics, dropping moisture as it gains altitude. The dried-out air moves north (and south) of the equator, then descends in subtropical regions such as the American Southwest.



Las Vegas property owners are importing water to run fountains and nourish plants.

Global warming will cause the Hadley Cell to widen and move farther north, making the Southwest even drier.

Global warming will have a second effect. Warm air holds more water than cool air, so global warming will pull moisture from the soil. Dry soil heats up quickly, further warming the air above it. The Southwest is particularly susceptible to that effect because it has much less vegetation than other regions; vegetation shades the soil and holds moisture in the ground.

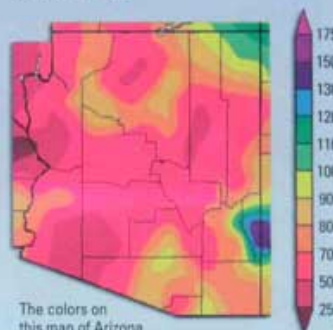
### SUMMER SHOWERS

Some scientists say the computer models may not account for summer thunderstorms that bring rain to the Southwest and could help make climate change there more bearable. "I think we have to be cautious with modeling studies," says Svoboda.

But, says Garfin, though Seager's findings may not account for every

detail, his conclusion is basically right: Far worse conditions lie ahead. A warmer, drier climate in the Southwest in the future will be tougher on ecosystems and water supplies than ever.

"The drought of the future," he says, "isn't going to be your father's drought." **CS**



The colors on this map of Arizona indicate the percentage of precipitation each region received during the last two years compared to the yearly average.



The long drought in the American Southwest has lowered the level of Lake Powell by 30 meters (100 feet).

From Current Science, September 7, 2007. Copyright © 2007 by Scholastic Inc. Reprinted by permission of Scholastic Inc.





**COVER STORY**



# Dry Times

**2003**

**A TRICKLE** Lake Powell is a huge reservoir that is part of the Colorado River. Its water levels have been dropping since 1998.

## Parts of the U.S. are struggling with serious water issues

**F**or residents of many parts of the southern United States, rain would be a welcome sight. Parts of the Southwest and the Southeast are very thirsty for water.

Officials in the Southeast recently put emergency water-saving rules in place. In Siler City, North Carolina, residents were ordered to reduce water use by 50 percent. Georgia's Governor Sonny Perdue declared October "Take A Shorter Shower Month." Residents of Atlanta, Georgia's capital, aren't allowed to water their lawns.

These areas are experiencing a serious **drought**. Population growth is making the drought worse. This growth puts a burden on freshwater supplies.

Experts are working on long-term solutions to these water woes. In the meantime, Americans everywhere are thinking about how to conserve one of

## the most precious natural resources—fresh water.

### Booming Areas

Large numbers of people are moving to, and raising families in, the Southeast and Southwest. Georgia's population increased by 26 percent between 1990 and 2000. The number of people in the Southwest is growing even faster. Nevada's population grew by 66 percent between 1990 and 2000.

Eric Kuhn of the Colorado River Water Conservation District says this growth poses a serious problem. "The demand for water exceeds the supply available during dry periods," he says.

### Why So Dry?

Droughts are natural disasters. No one can tell for sure when droughts will begin or end. The



**Drought in the U.S.**

Source: U.S. Drought Monitor

Alaska and Hawaii are not shown to scale or placed in their proper geographic positions.

**Drought intensity as of October 16, 2007:**

- Severe
- Extremes
- Exceptional

**What's that word?**

**drought:** (drou't) *noun*. An extended period of much less rainfall or snowfall than expected.







**2002**  
SHRINKING Lake Powell  
with more water, but  
still less than normal.

**Solving the Problem**

Solving the water crisis will require both conservation and long-term planning. In the Southeast, officials from Florida, Alabama, and Georgia are discussing how to divide their limited supply of water fairly and use it wisely.

In the Southwest, scientists are working on more effective ways to water crops. Farmers there need lots of water for their thirsty plants. One idea is to deliver water straight to plants' roots. That requires less water than typical **irrigation** methods. Some officials are also working on solutions that involve turning Pacific Ocean water into fresh water.



**DRY DOCKED** Before its water level dropped, Lake Lanier in Georgia used to keep this boat afloat.

**What's that word?**

**irrigation:** (ir-uh-gay-shuhn) *noun*. The supply of water to crops by artificial means, such as channels or pipes.

**Kids Can Help**

Even if you don't live in a drought-stricken area, wasting water isn't wise. Many areas are naturally dry. People need to conserve water to make sure there's enough for everyone.

Just ask the fourth-grade class at S.Y. Jackson Elementary in Albuquerque, New Mexico. Last month, the class attended a children's water festival. There, students learned where the region's water comes from and why they need to conserve it. "Water is very valuable in New Mexico," says Michelle Nguyen, 10. "This is very dry land, so we have to conserve water."

Classmate Lindsey Shepherd's family has been quick to put water-saving measures into practice. "We used to take 15-minute showers. Now we take five-minute [showers], and we don't keep the water running when we brush our teeth," says Lindsey, 10 (see *Water Wisdom*).

The students say knowledge about the issue has made their families more wise about water use. "Some people just don't know to care," says Jacob Hyde, 9.

—Elizabeth Carney

**Water WISDOM**



**ALL ABOUT WATER** These fourth-grade students from Vista Grande Elementary in Rio Rancho, New Mexico, recently attended a water festival.

**F**resh water isn't only used for drinking. In fact, in a typical U.S. household, water is used mostly for bathing and showering. Other water-using activities are cooking, drinking, cleaning, and flushing the toilet. You and your family can conserve water with these easy tips:

- **Limit showers** to no more than five minutes.
- **Turn off the tap** when you wash dishes or brush your teeth.
- **Search** your sinks, toilet, and shower for leaks, and ask an adult to repair any that you find.
- **Only run** dishwashers and washing machines when they're full.

**BACK TO YOU**

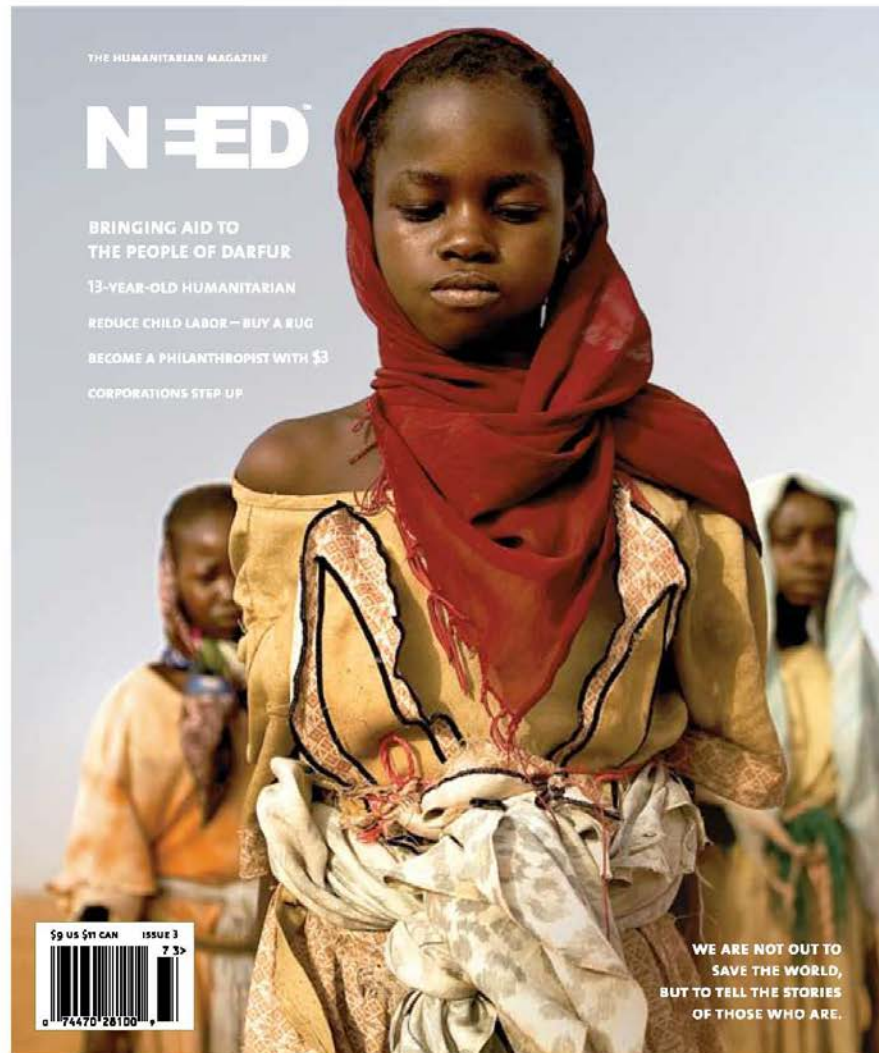
• **What other ways can you think of to help protect the environment?** Plot on a graph the number of hours that you use electricity during each day of the week.

SCHOLASTIC NEWS / NOVEMBER 19, 2007 5

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NEED: Future Clean Water Solutions



FUTURE | CLEAN WATER SOLUTIONS

## NEED: Future Clean Water Solutions

### FUTURE | CLEAN WATER SOLUTIONS

WRITER: JOHN REISINGER

PHOTOGRAPHER: SCOTT HARRISON

It is easy to take something for granted when it is always there. In places rich with clean water resources there are watered lawns, clean cars and long showers. Comprehending the global need for water is difficult when wells are abundant and public waterworks are aptly funded – the tap turns; the water comes out. It is unimaginable to even think of walking great distances every day to throw a bucket into a swamp and call what comes out drinking water.

More than a billion people in the world are currently in need of clean drinking water. The need is so vast that no single solution will work in every case; therefore, there is room for various creative solutions. More than 2.2 million people die each year from preventable diseases caused by contaminated water. The need for clean water will continue to grow as the global population increases.

In the developing world, wells are too expensive for impoverished villages to afford because they require skilled workers and specialized heavy equipment. To top it all off, subterranean water is not always available, and surface water is generally not safe to drink. Other innovations are necessary, and tremendous steps are being taken to bring water to these communities.





NEED: Future Clean Water Solutions



A BOY IN SOUTHWESTERN ETHIOPIA DIGS A HOLE TO FIND WATER IN A SANDY RIVERBED. IT HAD RAINED THE DAY BEFORE, SO HE WAS ABLE TO GATHER SOME MUDDY WATER TO HAUL BACK TO HIS VILLAGE.



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| FUTURE |



PRIOR TO "CHARITY: WATER" SPONSORING A WELL IN 2006, THIS ALGAE-FILLED SWAMP WAS THE WATER SOURCE FOR MORE THAN 4,000 PEOPLE LIVING IN THE COMMUNITY OF BULGETA, ETHIOPIA.



THIS WATER HOLE IS ABOUT AN HOUR SOUTH OF RWANDA'S CAPITAL, KIGALI. EVERY DAY PEOPLE GATHER MUDDY WATER FROM THIS RAVINE IN 5-GALLON FUEL CANS AND HAUL IT SEVERAL MILES BACK TO THEIR VILLAGES. COW FECES AND URINE MAKE THIS WATER DEADLY, BUT THE CHARCOAL TO BOIL THE WATER FOR SANITATION IS TOO EXPENSIVE FOR MOST VILLAGERS WHO LIVE ON LESS THAN \$1 A DAY.



| 4 |

NEED: ISSUE 3 2007





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LIKE 200 MILLION PEOPLE WORLDWIDE, THIS CHILD IS INFECTED WITH SCHISTOSOMIASIS (PARASITES) BECAUSE OF THE CONTAMINATED WATER HE DRINKS IN SOUTHERN ETHIOPIA. THIS CONDITION CAN DAMAGE THE LIVER, LUNGS, INTESTINES AND BLADDER, RESULTING IN A BLOATED BELLY AND SWOLLEN FEET.

**NEED: Future Clean Water Solutions**

| FUTURE |



"CHARITY: WATER" FUNDED THIS NEW WELL, BUILT IN 2006, THAT SERVES THE COMMUNITY OF BULGETA, ETHIOPIA. A WELL CAN PUMP MORE THAN A MILLION GALLONS OF SAFE, CLEAN WATER PER YEAR, WHICH IS ENOUGH WATER TO FILL MORE THAN 7 MILLION 16.9-OUNCE BOTTLES.

**CHARITY: WATER**

Travel to impoverished regions of Africa like Scott Harrison did, and the need for clean water becomes obvious. "More than one in six people on the planet don't have access to safe water. It's an emergency to those billion people. Eighty percent of diseases [in the Third World] come from bad water and inadequate sanitation," Harrison states. "When I saw ... what that looked like in the developing world – 13-year-old girls that [were] not in school but instead [were] breaking their backs to haul muddy water three miles uphill to their villages – it's hard to sit idly by."

Harrison had to do something. He formed charity: (yes, all lowercase, with the colon included), a nonprofit dedicated to "stimulating greater global awareness about extreme poverty, educating the public, and provoking compassionate and intelligent giving." Its first campaign called "charity: water" has multiple fundraising initiatives including the sale of bottled water and well sponsorships. "We ask people to sponsor a well or a part of one. Kids, youth groups, churches, hotels and landscape companies – anyone can join us in providing clean water to these

| 6 |

NEED: ISSUE 3 2007



## NEED: Future Clean Water Solutions

villages in need. Then, we ask people to tell our story to engage their peers,” says Harrison.

“Charity: water” receives donations that are used to fund 168 clean water well projects in these countries: Malawi, Uganda, Central African Republic, Liberia, Rwanda and Ethiopia. “Our projects normally also have a sanitation and hygiene piece to them, and training committees to maintain their new water source is key,” states Harrison.

He continues, “Many people have embraced the notion that water is a basic human right and offered to help do something about those without access to it. ... The response exceeds our expectations. ... We simply can’t raise too much awareness.”

### BIOSAND FILTERS

In some areas of the world, water is readily accessible, but it is dirty, so it needs a filter. Standard filters are expensive, complex and heavily reliant on expert maintenance. Because of these factors, they do not translate well for Third World use. A revolutionary filtration system is needed.

Enter the BioSand Water Filter. Dr. David Manz at the University of Calgary created and donated the design of this filter to be utilized by any nonprofit that could put it to good use. Organizations like Living Water International and Samaritan’s Purse are building BioSand Water Filters in areas of need around the world.

This filter is constructed out of gravel, sand, PVC pipe and sheet metal, all of which are readily available at a low cost anywhere around the world. As water passes slowly through the sand, a biological zone is formed at the top. This zone, called a “schmutzdecke,” is filled with bacteria that eat other bacteria and viruses, purifying the water as it moves down through the sand.



CLEAN WATER FLOWS FROM THE BIOSAND WATER FILTER (BACKGROUND) IN EL SALVADOR. PHOTO | COURTESY OF SAMARITAN’S PURSE

## NEED: Future Clean Water Solutions

| FUTURE |

Pour a glass of dirty water inside the pipe, and clean drinking water will come out the other end. Its genius lies in its simplicity.

“The Pantanal area of Brazil is home to one of the largest swamps in the world. The size of Colorado, this swamp is the main source of drinking water for Pantanal communities,” says Stan Patyrak, assistant vice president of Living Water International. In an area where the main source of travel is by boat, drilling water wells is extremely difficult due to the inaccessible nature of the area. “BioSand Filters have had a special impact in areas like this, as they require very little and simple maintenance,” Patyrak says.

The average cost for each filter is \$100 USD per household. This one-time expense includes construction, installation and monitoring of the filter plus important

health and hygiene training. Samaritan’s Purse has built nearly 70,000 of these filters all over the world. “The BioSand Water Filter removes between 95 and 99.5 percent of microbial contaminants as well as 100 percent of worms and parasites. ... The water flowing out of the filter is clear, good-tasting and free from ... the pathogens responsible for diarrhea diseases,” states Scott Drennen, representative of Samaritan’s Purse.

Bernard Mzololo is a resident of the remote Kwale district of Kenya where clean drinking water was not readily available. Each day members of his family would trek up to 12 miles one way to access water. After receiving their filter from Samaritan’s Purse, “My family isn’t sick anymore with stomach problems,” Mzololo says. “Before we had the water filter, they would get diarrhea and suffer for a long time.”

### PLAYPUMPS INTERNATIONAL

When water is abundant, the BioSand Filter is an excellent solution. Unfortunately, there are some places where surface water is nonexistent. In those situations, the PlayPump is ideal. Created by PlayPumps International, it has the ability to draw water from more than 300 feet below the surface.

The PlayPump is far more than a simple well. Water is not pumped with a labor-intensive, old-fashioned hand lever. Instead, it harnesses the energy of playing children. Disguised as a brightly colored merry-go-round installed near schools, the PlayPump can produce up to 370 gallons



A GIRL FROM THE PANTANAL AREA OF BRAZIL HOLDS GLASSES OF WATER TO SHOW THE BEFORE AND AFTER EFFECTS OF THE BIOSAND WATER FILTER. PHOTO | COURTESY OF LIVING WATER INTERNATIONAL

| 8 |

NEED ISSUE 3 2007



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CHILDREN ARE HAVING FUN ON THE MERRY-GO-ROUND THAT IS OTHERWISE KNOWN AS A PLAYPUMP.  
PHOTO | COURTESY OF PLAYPUMPS INTERNATIONAL



## NEED: Future Clean Water Solutions

| FUTURE |

of water an hour. The water is stored in a tank capable of holding more than 600 gallons. Turn the spigot at the base of the pump, and out flows clean drinking water – enough to easily serve over 2,500 individuals.

With the water harvested from the pump, schools have been able to create large-scale food gardens that improve the schools' meal program. "Even if we can provide just one balanced meal to the children who come from the poorest homes, we know they stand a chance," says Mrs. Ghazi, principal at Basa Primary School. "Each row of vegetables is under the guardianship of a particular class, and the children take tremendous pride in clearing their patch of weeds and watering their precious plants."

Each element of the PlayPump system is meticulously designed. The water tank serves as a billboard to the outlying community. Two sides of the tank are used for public service announcements many of which have HIV/AIDS prevention messages. The remaining two sides of the tower are rented out to advertisers. Marissa Valdez, program manager of PlayPumps International, explains, "Revenues from the sale of the advertising space cover the cost to maintain the PlayPump systems so that the community does not incur any cost." These pumps have creative solutions built right in.

Palesa Mkhabela, 12, attends a school with a PlayPump and dreams of becoming a doctor. He says, "When I become a doctor and can help other people, I will always remember that health starts with clean water."

### WATERPARTNERS INTERNATIONAL

Communities in the developing world know what they need. Some need a well, filter or pump, but with any of these solutions, the success of microfinance has proven its value. Microcredit allows a community to literally own a project. Using this proven system, WaterPartners International (WPI) has come up with a strategy, referred to as WaterCredit. This approach helps individuals and communities in developing countries implement sustainable solutions for clean drinking water.

WPI works from a simple set of ideas. They provide microloans to villages that do not have the means to obtain them. According to WPI's Web site, "These loans help finance the upfront cost of water and sanitation systems. Giving people the credit tools they need and allowing them to repay the loans over time empowers them to solve their own water supply needs."

"In terms of ownership and self-sufficiency, the community or individual owns the water project from the time it is installed," comments Nicole Wickenhauser, communications manager for WaterPartners International. "Our partner organizations provide the training and technical expertise needed for the owners to properly and independently operate, maintain and repair the water connection throughout its life."

Those who have received loans have shown incredible responsibility. According to Wickenhauser, "Loan repayments typically run one to three years."

NEED: Future Clean Water Solutions



BECAUSE OF MICROCREDIT, THESE GIRLS HAVE CLEAN WATER IN HONDURAS. PHOTO | COURTESY OF WATERPARTNERS INTERNATIONAL



## NEED: Future Clean Water Solutions

| FUTURE |

In Bangladesh and India the repayment rates have been [more than] 90 percent.”

Gandhamani, from India, is a great example of how access to clean water can improve the quality of life. She was able to use a WaterCredit loan in order to have access to clean water at her home. Besides having clean drinking water, she also uses the water for her garden and her banana trees, which provides extra income for her family. As an added benefit, she no longer has to spend time hauling water over long distances, which allows her to spend more time with her family.



GANDHAMANI RECEIVED A WATERCREDIT LOAN FOR CLEAN DRINKING WATER. PHOTO | COURTESY OF WATERPARTNERS INTERNATIONAL.

### ETHOS WATER

Along with several proven solutions that provide clean drinking water, consumers can have a positive impact on the world’s water crisis. Ethos Water provides consumers with the opportunity to donate to clean water projects in the developing world by merely buying a bottle of water. “For each bottle of Ethos Water purchased in the US, 5 cents is contributed to the Ethos Water Fund at the Starbucks Foundation,” states Peter Thum, founder of Ethos Water. “The mission of Ethos Water is to help children around the world get clean water and to raise awareness of the world water crisis.”

Since its inception in 2002, Ethos Water has committed over \$4.2 million USD in grants to its beneficiaries. Thum notes, “Our ability to deliver upon this mission has grown from humble beginnings as a regional start-up company in 2002 to national distribution and sales since Starbucks acquired the brand in 2005 and undertook to scale our social mission.” Ethos Water can be found at Starbucks locations, as well as other retail establishments.

In the village of Cholutate, Honduras, the residents were forced to gather runoff water during the rainy season. Throughout the dry months of the year, women and children had to trek more than a mile to obtain water. Yet the water that was collected was contaminated. Ethos Water donated funds for a WPI team fix the problem in Cholutate. Thum reported that the money given was used to build latrines, train plumbers and create a complete water system that sustains the village through the dry season.

| 12 |

NEED ISSUE 3 2007



NEED: Future Clean Water Solutions

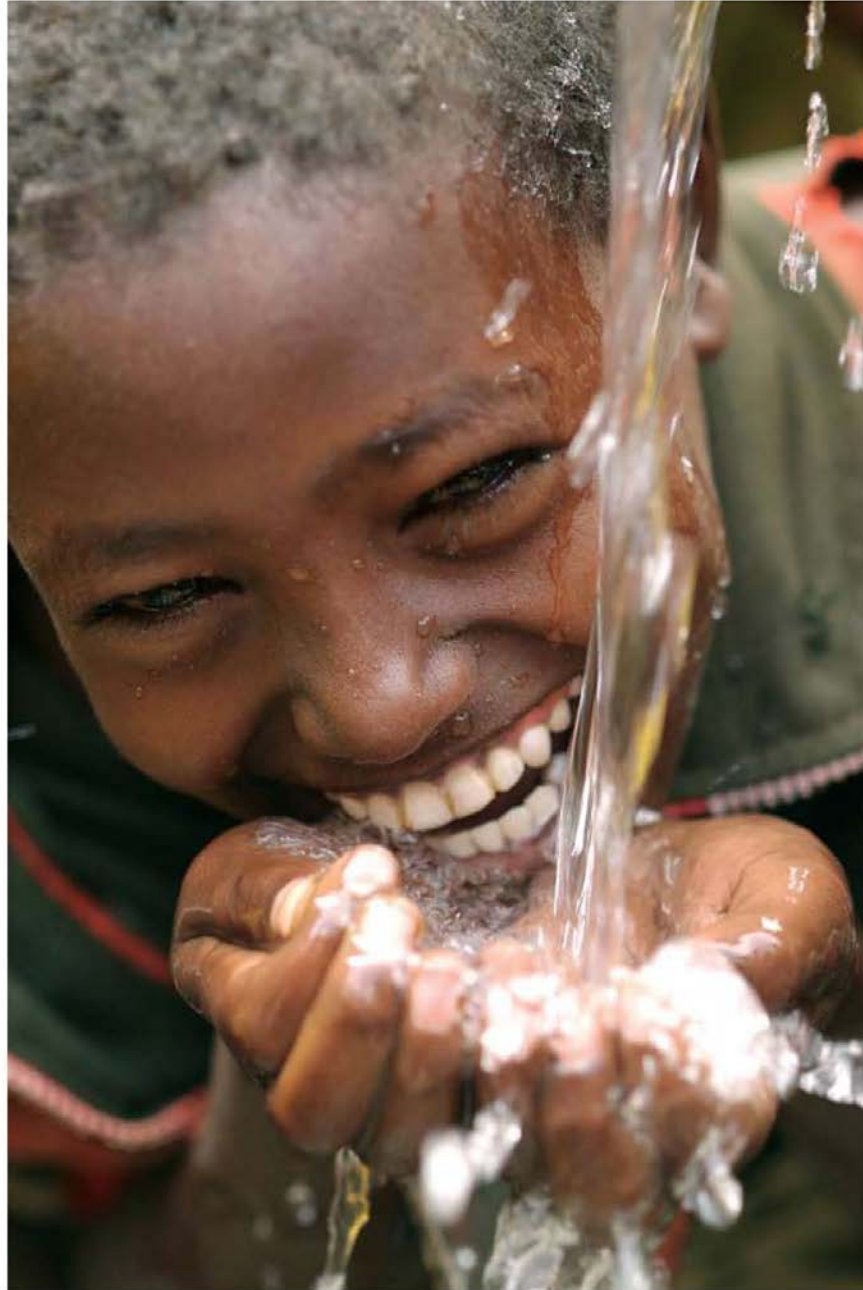


PETER THUM SPENDS TIME WITH THE CHILDREN OF THE RURAL VILLAGE OF PINJAUAN IN WESTERN SUMATRA. ETHOS WATER SUPPORTED MERCY CORPS TO INSTALL PLUMBING, TOILETS AND HAND-WASHING FACILITIES AT THE SCHOOL SO THEY NO LONGER HAVE TO USE A NEARBY RICE FIELD AS THEIR 'LATRINE FACILITY.' PHOTO | COURTESY OF ETHOS WATER



NEED: Future Clean Water Solutions

| FUTURE |



A CHILD ENJOYS CLEAN DRINKING WATER FROM THE NEW WELL IN BULGETA, ETHIOPIA.


| 14 |

NEED: ISSUE 3 2007





NEED: Future Clean Water Solutions

The urgency of the water crisis is undeniable. However, with the ingenuity of individuals, communities and organizations, sustainable solutions are implemented because access to safe drinking water is a basic human right. 

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## NEED: Future Clean Water Solutions

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### FULL CONTENTS | ISSUE 3 2007

#### WORK | SOCIALLY RESPONSIBLE TEXTILES

An international nonprofit is winning the battle against child labor in the rug-making industry in Nepal, India and Pakistan.

#### GENEROSITY | A LITTLE GOES A LONG WAY

An English professor proves that anyone can be a philanthropist, even those with only \$3 to spare.

#### FUTURE | A BASIC HUMAN RIGHT

Individuals, communities and organizations develop multiple strategies to combat the world's water crisis.

#### HOME | DISPLACED IN DARFUR AND CHAD

Renowned photographer Ron Haviv depicts the daily struggles of the people displaced by the conflict in Darfur.

#### HEALTH | DEDICATION SAVES LIVES

Drug-resistant TB is a major health crisis around the world, but it can be cured.

#### KIDS | HOPE FOR STREET CHILDREN

It is estimated that there are 200,000 street children living in Kolkata, India.

#### ONE | 13-YEAR-OLD HUMANITARIAN

Austin Gutwein uses his love of basketball to help others.

#### COOPERATION | BIG BUSINESS PITCHES IN

Corporate philanthropy is a business strategy that changes lives.

#### DIALOGUE | STEPHANIE BUNKER

The spokesperson for OCHA shares experiences from the field in an interview.



#### ON THE COVER

YOUNG GIRLS LEAVE AN INTERNALLY DISPLACED PERSONS (IDP) CAMP IN ABU SHOUK, NORTH DARFUR, TO GATHER FIREWOOD. SINCE 2003 OVER 200,000 SUDANESE PEOPLE HAVE BEEN KILLED AND OVER 2 MILLION DRIVEN FROM THEIR HOMES INTO CAMPS IN DARFUR AND THE NEIGHBORING COUNTRY OF CHAD.

PHOTO | RON HAVIV - VII

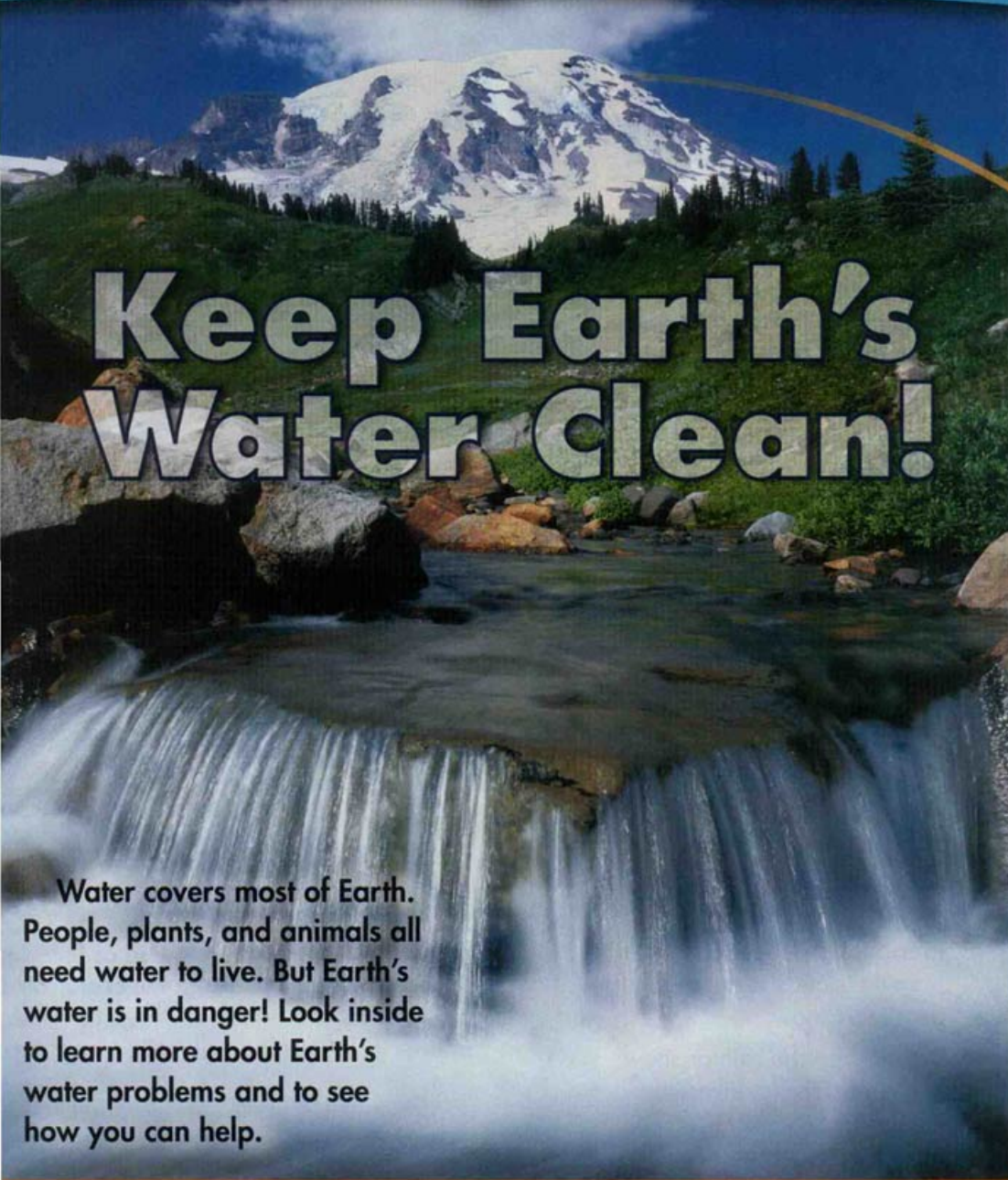


Keep Earth's Water Clean

Edition 2 • Issue 23 • Volume 73

# WEEKLY WR 2 READER®

April 2, 2004 [www.weeklyreader.com](http://www.weeklyreader.com)



## Keep Earth's Water Clean!

Water covers most of Earth. People, plants, and animals all need water to live. But Earth's water is in danger! Look inside to learn more about Earth's water problems and to see how you can help.

Earth Day is April 22. This year's theme is "Water for Life."





Keep Earth's Water Clean

## Water Is Always Moving

Earth has only a certain amount of water. Earth's water is used again and again in the **water cycle**. The water cycle has four parts.

- 1. Evaporation**—The sun warms water in rivers, lakes, and oceans. Soon the water turns into a **vapor**, or gas, and floats into clouds in the sky.
- 2. Condensation**—Water vapor in clouds cools and turns back into a liquid.
- 3. Precipitation**—The liquid falls from the clouds to the ground as rain or snow.
- 4. Collection**—The rain or snow ends up in rivers, lakes, and oceans again.

## Why Is Earth's Water in Danger?

Here, an African penguin is covered in oil that spilled into the ocean.

Much of the world's water is polluted. Polluted water has trash in it. Those trash can get into water in many ways. For example, trash can get into water when it blows into a river or when it is thrown away. Once in the water, it can get into a cycle, like the water cycle, and end up in the ground or in the ocean. This is why penguins look like this.

This is what penguins look like.

**Word Wise**  
 recycle (ree-SIGH-kuhl)—to use again

WW

## Make a Splash

You can help keep Earth's water clean too! Everything you do affects Earth's water in some way. Take a look at these tips.

- Use as little water as you can.
- Put chemicals and trash in the proper place or down a drain.
- Pick up trash you see on the ground and don't throw it away.

2

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## Keep Earth's Water Clean

**anger?**

Water on Earth is **polluted**. Harmful chemicals or trash can get into water in many ways. For example, chemicals can get into water if a factory dumps them. Because water travels in rivers and oceans, it can carry those chemicals far away. Trash can get into our water when people dump it in the streets. Trash in the water is very harmful to animals.

**THINKING CUE**  
Besides water, what are some things you could care for on Earth Day?

### Give Water a Hand

Earth Day is April 22. On Earth Day, many people help clean up parks, rivers, and beaches. Groups of volunteers from schools, churches, and neighborhoods join to help our Earth. Some people pick up trash, and others plant trees. Many people work to save water from pollution. What will you do this Earth Day?

The plastic rings from six-packs can be dangerous to animals because their heads, necks, and legs can become tangled in the holes.

**African penguins**

**Trash**

It is possible to keep trash only in the trash can, not in water. We can help keep the water clean by picking up trash on the beach.

**You and your family can help keep Earth's water clean too!**

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3

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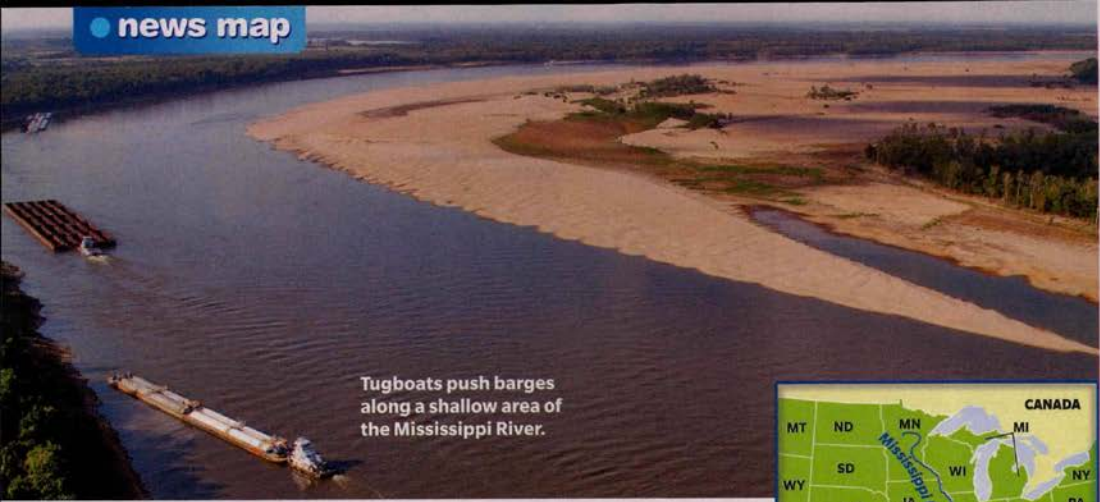
Toxic Water is Poisoning the People of Bangladesh

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## A River At Risk

**news map**



Tugboats push barges along a shallow area of the Mississippi River.



# A River at Risk

### Water levels on the Mississippi River are falling

**B**oats on the Mississippi River may soon have trouble getting very far. The river is a superhighway for shipping goods within the U.S. and to the rest of the world. But last month, its water levels fell to their lowest point in years. That threatened to shut down some parts of the Mississippi.

**Water Woes**

The water levels began to drop last summer, when more than half the country suffered through a severe drought. Dry conditions continue, causing the river to get even shallower.

One big trouble spot is the area between St. Louis, Missouri, and Cairo, Illinois. Water levels there have dropped about 20 feet since this time last year.

The low water levels have hurt

many businesses. Boats tow or push big barges filled with coal, oil, steel, and other goods along the Mississippi. More than half the corn and wheat **exported** from the U.S. is shipped down the river. Then it gets carried through the Gulf of Mexico to other countries.

But the barges are now carrying lighter loads so they won't get stuck in shallow water. As a result, companies have to make more trips to transport the same number of goods. That drives up the price of food and other items.

**Helping River Traffic**

The U.S. Army Corps of Engineers manages America's water resources. Since December, the Corps has been removing huge rocks from the bottom of the river. This has allowed ships to safely pass through the shallow water. But the engineers say more rainfall is the only lasting solution.

**Word to Know**

**exported** (EHK-spor-tid) *verb*. sent from one country to another and then sold

**MAP QUIZ**

Use the map to answer the following questions.

- The Mississippi River flows \_\_\_\_ from St. Louis, Missouri, to Cairo, Illinois.  
 A northeast C southeast  
 B northwest D southwest
- The river flows into the Gulf of Mexico from \_\_\_\_.  
 A Minnesota (MN)  
 B Texas (TX)  
 C Louisiana (LA)  
 D Mississippi (MS)
- The Mississippi River begins in Canada.  
 A true B false
- St. Louis is about \_\_\_\_ miles from Cairo.  
 A 150 C 350  
 B 250 D 450

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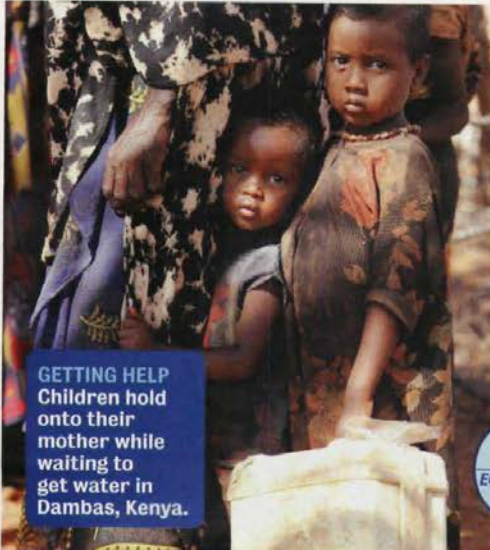
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## Crisis in East Africa

NEWS MAP



GETTING HELP

Children hold onto their mother while waiting to get water in Dambas, Kenya.



## Crisis in East Africa

This region is suffering from a severe drought

Many people in East Africa are facing hunger and thirst due to a devastating drought. More than 7 million people throughout the region are in desperate need of food and water.

International charities are sending food and water to East Africa. But United Nations (UN) officials say much more aid is needed immediately.

With no water, crops haven't been able to grow. Large fields that should produce food have turned into dust.

"I've a family of four, and I used to support my family by tilling the land," Waricha Chema, a farmer in Ethiopia, told a British news agency. "Because of the drought, I don't have anything to harvest from my land."

Meanwhile, cattle and other

farm animals are dying because they have nothing to eat. When the farmers lose their animals, they lose a main source of food and income.

UN officials say the lack of rain is due in part to worldwide climate changes. Deforestation, the removal or destruction of trees, is also a factor.

East Africa's food shortage will be a long-term problem, officials warn. Even if rain comes soon, it will take time for crops to grow again.

Children worldwide can help by raising money for international charities. A number of groups are aiding **famine** victims in the area, including Christian Aid, Concern Worldwide, and Doctors Without Borders.

—Mary Harvey

### TRAVEL QUIZ

Read the map and the map key and answer the following questions. Fill in the circle next to each correct answer.

1. Which of these East African nations is one of the five that is most affected by the drought?  
☐ A Kenya      ☐ B Sudan
2. What is the capital of Kenya?  
☐ A Nairobi      ☐ B Khartoum
3. Southern Sudan has mostly what kind of vegetation?  
☐ A grass and brush      ☐ B brush-grass and forest-woodland
4. Which East African nation is farthest east?  
☐ A Sudan      ☐ B Somalia
5. Djibouti's land is dry.  
☐ A true      ☐ B false

**What's that word?**  
**famine:** (fam-uhn) *noun*. A serious lack of food.

6 SCHOLASTIC NEWS / APRIL 17, 2006

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A Dwindling River



**earth science**

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2002

# A Dwindling

## As water demands rise, the Colorado River is running dry

**A**bout 100 years ago, the Colorado River raged southward toward the Gulf of California (see map, p. 7). Where the two bodies of water met, great walls of water sprayed high into the sky. This amazing water show no longer happens. These days, the Colorado River often dries up before it even reaches the gulf.

Like many of the world's sources of fresh water, the Colorado River is shrinking.

People are draining away huge amounts of this water for personal use, such as drinking and bathing. Water is also used to grow crops and raise livestock, and in industrial processes. For instance, fresh water is used to manufacture goods like T-shirts and computers.

As the world's population expands, the demand for water is rising. Freshwater sources are now being drained more quickly than natural processes like rain



**Eleanor Sterling, a scientist at the American Museum of Natural History**

can refill them. As a result, many parts of the world are facing water shortages. "Ensuring that everyone has enough fresh water will be one of the major issues facing us this century," says

**6 SUPERSCIENCE**






## A Dwindling River

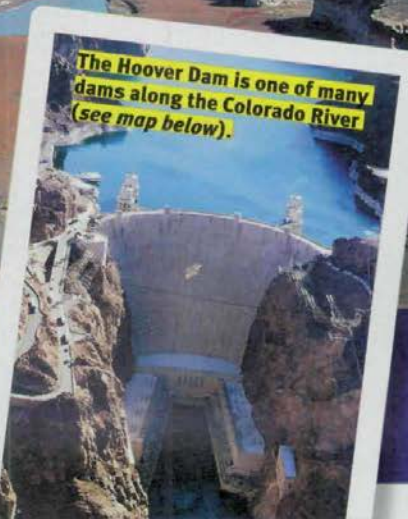


2002

Many factors affect the amount of water in a river, including droughts and dams. Compare the level of the Colorado River in June 2002 (left) with the water level during a drought in December 2003 (right).



2003



# RIVER


**Water Pressure**

Roughly 70 percent of Earth's surface is covered in water. So how can there be a water shortage? Most of the water on Earth is salty. Less than 3 percent of it is fresh water, and only a tiny fraction of that is available for use.

In addition, freshwater sources are not spread evenly around

the planet. Water shortages are greatest in **arid** regions like southern Africa and the southwestern United States. To make matters worse, the human populations in many of these regions are increasing.

Phoenix, Arizona, is one of these regions. The city and surrounding areas are home to roughly 3 million people. Thousands of people move there each year. Yet the city—located



in the middle of the Sonoran Desert—receives less than 25 centimeters (10 inches) of rain a year. That's only one third of the national average.

OCTOBER 2007 **7**

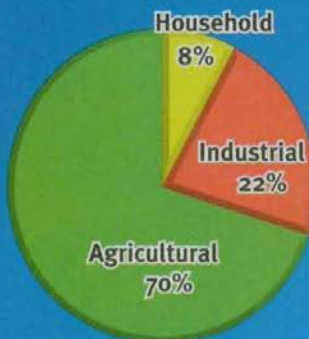




## A Dwindling River

### Percent of Worldwide Water Use, by Activity

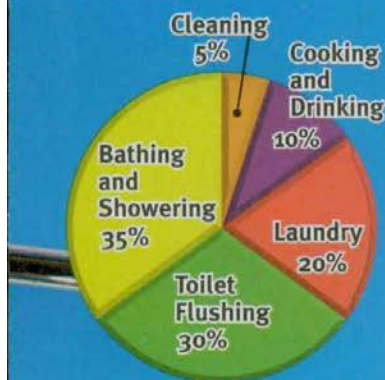
Household activities, like bathing and washing dishes, make up less than 10 percent of fresh water used. Which type of activity uses the most water?



GRAPH SOURCE: WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT (WBCSD)

### Percent of Household Water Use, by Activity

The graph below shows how water is generally used in households in an industrialized country like the United States. What is one way you could reduce water usage in your household?



GRAPH SOURCE: ENVIRONMENT CANADA (ENR)

### Watering the Desert

How do people survive in the dry Southwest? **Groundwater** provides one source of fresh water. But there is not enough groundwater to meet the area's needs. The bulk of the water is taken from the Colorado River.

This 2,334 kilometer (1,450 mile)-long river supplies water to several big cities, including Las Vegas and San Diego. In all, it delivers fresh water to about 30 million people. The river also **irrigates** 14,973 square kilometers (3.7 million acres) of farmland.

### Southwest Distress

The demand for water is taking a toll on the river. Except in heavy flood years, dams and canals capture every drop of the Colorado River for use. As the region's population grows, the river is becoming unable to meet the demand for water.

Overuse of the Colorado River is threatening the water supply for homes, as well as for ranchers

and farmers. But the drying river has also put wild plants and animals at risk. The Colorado River **Delta** was once brimming with wildlife. But little water reaches the delta now. As a result, many plants, bobcats, beaver, deer, shrimp, and several species of fish have lost a home.

### Water Solutions

"To tackle the problem of water shortages, the focus should be on conservation—how to live with less of it," says Sterling.

Researchers are trying to help reduce water use by coming up



### Words to Know

**Percent**—number out of 100. For example, 70 percent means 70 out of every 100.

**Arid**—very dry due to little rainfall

**Groundwater**—water that soaks into the ground and is stored there

**Irrigate**—supply water to grow crops

**Delta**—area where a river enters a body of water and deposits sediment

**Evaporation**—the changing of a liquid, like water, into a gas

ROAM CLAYTON (GETTY IMAGES (IRRIGATION SPRINKLER); CORBIS/VEER (SHOWERHEAD); DIGITAL VISION PHOTOGRAPHY/VEER (KIDS)





## A Dwindling River

with new ways to irrigate crops. "In the Southwest, large amounts of water [used to water crops] are lost to **evaporation**," says Sterling. So scientists are developing new irrigation methods that deliver water directly to plants' roots. This means less water would be lost to evaporation.

### Personal Decisions

Sterling says that individuals also can make a difference when it comes to saving water. For instance, instead of dumping leftover drinking water down

the drain, use it to water plants. Another water-saving tip: Don't leave the water running when you are brushing your teeth or washing dishes, says Sterling.

Other ways to conserve water are more surprising. Water is used to manufacture computer chips in cell phones, cameras, laptops, and toys. So Sterling recommends purchasing no more of these items than you need. In addition to saving money, you'll be helping to protect the planet's water supply.

—Judith Jango-Cohen

### check it out

Earth's surface is nearly three-quarters water. So why should you care about saving a few gallons here or there? Every drop counts. Even in places where it rains a lot, water conservation ensures there is enough for humans and wildlife alike.

*Water: H<sub>2</sub>O = Life* is a new exhibition opening November 3, 2007, at the American Museum of Natural History. In it, you can explore the mystery and necessity of water—and learn how you can help conserve this vital resource. To learn more, ask your teacher, or visit [www.amnh.org](http://www.amnh.org) or <http://ology.amnh.org>.

## Kids!

With the Kids' Environmental Report Card, Science Explorations presents a fun and easy way to explore and speak up about the planet's environmental issues. Go to [www.scholastic.com/reportcard](http://www.scholastic.com/reportcard) to:

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In April, we'll publish a special Earth Day report to show the world what kids are thinking about the planet and how to protect it.

### SPEAK UP ABOUT THE ENVIRONMENT!

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In your opinion, which of the following is the most important environmental issue facing the world today?

- A. Water resources
- B. Energy resources
- C. Wildlife conservation
- D. Global climate change

Here's the first survey question:



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## Muddy Waters

### EARTH

By Chris Jozefowicz

Left: The waste from huge hog farms such as this one, when used to fertilize fields, is often washed into nearby streams. Right: a waterway overgrown with algae

Clockwise from top left: Rick Dowse; Clutch Grynewicz/Corbis; Newscom; Rick Dowse; Ryan Reed; Barry Swan/NCT/Newscom



# Muddy Waters

### Keeping pollution down on the farm

**B**ryan Reed likes to see poop piling up indoors. Reed, who runs a farm in southern Iowa, used to let his herd of cows roam outdoors. But the rain liquefied their droppings into a muddy mess. Though the land could absorb a lot of that mess, the biggest rainstorms washed some of it into a nearby stream. “The grass couldn’t filter out enough before it got to the stream,” he says.

So Reed recently moved his 215 cows into an enormous building. “The building keeps the rainfall from getting to the manure,” Reed says. “I can store it inside until I can safely apply it to the fields.”

“The biggest thing for me is not being a slob,” he adds. “I don’t want to negatively affect people downstream.”

Reed’s effort is one small solution to a very big problem. Uncountable

tons of soil and manure are washing off farmland into the waterways of the United States.

“Agricultural pollution is the largest source of water pollution in the nation,” says Nancy Stoner, a water quality expert at the Natural Resources Defense Council. “There really isn’t any question about that.”

#### NUTRIENTS AND SOIL

Farms release two major types of pollution, says Stoner. “The first is *nutrient pollution*.” Nutrients are elements, such as nitrogen and phosphorous, that promote the growth of plant life. They come from manure and synthetic fertilizer.

“The second type is *sediment pollution*,” Stoner adds. Sediment is small particles of sand, clay, and other components of soil.

What’s wrong with nutrients and soil? Excess nutrients promote the overgrowth of algae and plankton

in rivers, lakes, and oceans. That overgrowth blocks sunlight and depletes gases and other resources in the water. In overgrown waterways, plants and small animals can find fewer places to live and predators have trouble hunting. In extreme cases, the overgrowth leads to *hypoxia*, a lack of oxygen. “Dead zones” that can’t support fish and other aquatic animals appear.

The nitrogen in nutrient pollution also reacts with oxygen to form *nitrate*, a chemical that can cause health problems in people when drinking water contains too much of it. Nitrate filtration is not a standard procedure in many water treatment facilities.

Sediment pollution turns water murky, which disrupts plant growth and limits what animals can see. It also makes drinking water smell and taste bad and increases water-filtering costs.





## Muddy Waters

### NONPOINT POLLUTION

Controlling farm pollution isn't as easy as capturing the emissions from cars and factories. Farm pollution is a type of *nonpoint source pollution*—pollution that has no defined source and is difficult to control. It's washed from a large area of land to a common location, such as a river, a lake, or a bay. (*Point source pollution* can be traced to specific outlets.)

Farmers have always struggled to control what runs off their fields, says Wendy Powers, a professor of animal agriculture at Michigan State University. Farms are at nature's mercy—they get hit with heavy rains and large snowmelts. "It's not like a factory that has a waste discharge pipe," she says. "Agriculture has open fields."

Some farming practices are contributing to the problem, she adds. Too many farm animals are raised in some regions of the country to give city dwellers ready access to fresh meat. The manure piling up at such farms is more than the local fields can handle. And the containment ponds where some of that manure is stored often leak.

### RUNOFF CONTROL

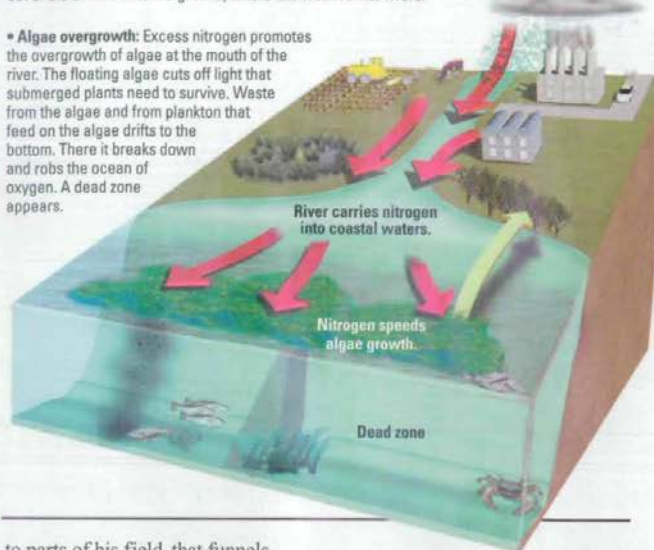
Efforts to control farm runoff involve steps such as those Reed has taken on his Iowa farm. In addition to moving his cows indoors, he recently began *no-till farming*. He no longer prepares the soil for crops by plowing and turning it. Now the soil remains locked into the fields. He has also added an underground drainage system

### Dead in the Water

When farms, cars, and factories pollute a river with nutrient waste, a dead zone—an oxygen-free area where most marine life cannot survive—may develop at the mouth of the river. Here is the path that one nutrient—nitrogen—takes.

• **Nitrogen sources:** Rain and irrigation water carry nitrogen-based fertilizer and nitrogen-rich manure into rivers. Rain also rinses the nitrogen pollution released by cars and power plants out of the air and onto the ground, where it is washed into rivers.

• **Algae overgrowth:** Excess nitrogen promotes the overgrowth of algae at the mouth of the river. The floating algae cuts off light that submerged plants need to survive. Waste from the algae and from plankton that feed on the algae drifts to the bottom. There it breaks down and robs the ocean of oxygen. A dead zone appears.



to parts of his field, that funnels excess water directly to his stream.

An ideal farm, says Powers, uses manure as fertilizer, prevents waste runoff, and finds a way to balance the nutrients added as fertilizer with those that come from manure. In most cases that job is too big for one farm, so groups of farms have to team up. "It's better to look at crops and animals as an integrated system," Powers says. Farmers grow crops, feed some of those crops to livestock, and use the manure to fertilize the next crops. It's a form of natural recycling.

Reed admits that the improvements he has made have been

expensive. But he's 35 years old and sees many years of farming in his future. Some of his older neighbors can't afford long-term, expensive investments, he explains. "It's going to take some younger people to make the commitment," he says. "I look at what my dad and my grandpa did when I grew up. What we're doing today is light-years better for the environment."

Attempts to limit farm pollution are succeeding, but the scope of the problem is still large, says Powers. "We'll never get to zero pollution," she admits. "But we already know the right things to do." **CS**



Left: Bryan Reed's herd of cattle lives indoors. Right: fish killed by hog manure that polluted the Neuse River in North Carolina



Independent Reading Recording Form  
Homework

Name: \_\_\_\_\_

Date: \_\_\_\_\_

|                       |  |
|-----------------------|--|
| <b>Title of Book:</b> |  |
| <b>Pages Read:</b>    |  |

Read your independent reading book. Follow the direction in each section.  
Use this chart to keep track of what you read.

| Where | Who | What |
|-------|-----|------|
|       |     |      |

**Words**

4. Write one word that struck you because it was a precise word. This could be a verb, or it could be a good adjective, or a describing word.

I think this word is precise because \_\_\_\_\_



**Independent Reading Recording Form**  
Homework

5. Write down any word or words you found that you are unsure about.

| Words | I think this means |
|-------|--------------------|
|       |                    |
|       |                    |
|       |                    |



EXPEDITIONARY  
LEARNING

# **Grade 3: Module 4: Unit 2: Lesson 9**

## **Continued Independent Research: The Challenges to Having Enough Clean Water for Everyone**



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**Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)**

- I can conduct a research project to become knowledgeable about a topic. (W.3.7)  
I can determine the main idea of an informational text. (W.3.2)  
I can retell key ideas from an informational text. (W.3.2)  
I can use a variety of strategies to determine the meaning of words and phrases. (L.3.4)  
    a. I can use resource materials (glossaries and dictionaries) to help me determine the meaning of key words and phrases.

**Supporting Learning Targets**

- I can determine the meaning of unknown words using context clues and a dictionary.
- I can ask and answer questions about the text I choose in order to build my knowledge about one specific challenge related to having enough clean water for everyone.
- I can identify key facts and details about my challenge topic.

**Ongoing Assessment**

- Asking and Answering Questions recording form, with text attached



| Agenda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Teaching Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"><li>Opening<ol style="list-style-type: none"><li>Engaging the Reader: Finding Water and Power Words in Our Research (13 minutes)</li><li>Unpacking Learning Targets (2 minutes)</li></ol></li><li>Work Time<ol style="list-style-type: none"><li>Researching with Research Buddies (25 minutes)</li><li>Adding Information to our Water Challenges Anchor Charts (15 minutes)</li></ol></li><li>Closing and Assessment<ol style="list-style-type: none"><li>Gallery Walk of Anchor Charts (5 minutes)</li></ol></li><li>Homework<ol style="list-style-type: none"><li>Choose to bring home one of the articles you have read about your research topic. Reread this text and complete the Vocabulary homework.</li></ol></li></ol> | <ul style="list-style-type: none"><li>This lesson continues the research launched in Lesson 8. Students remain with their same research buddy within their research team, studying one of the three topics related to the challenges of having enough clean water for everyone (access, demand for water, pollution).</li><li>Note that students use a dictionary to determine the meaning of words they might not be able to figure out in context. This lesson assumes that students have had experience with using dictionaries as a resource. A brief model is provided, but if students need additional instruction about using a dictionary, adjust the lesson as needed.</li><li>In Lesson 2, students worked with sentence strips to support their writing. This structure is again used in this lesson as students build anchor charts about their specific research topic. This is an intentional structure, designed to support students' writing throughout the module.</li><li>In advance: Make any adjustments to the research process that you deem necessary based on students' work during Lesson 8. For example: plan a mini lesson to clarify concepts as a whole class, or pre-plan conferring with research buddies who may need more support.</li><li>Review Launching Research Teams (from Lesson 8, for teacher reference) to clarify any aspects of the research process recommended in these lessons.</li><li>Gather books from the Unit 2 Recommended Texts list again, for students who might finish reading their research texts early.</li><li>Gather: Water Challenges anchor charts (Pollution, Demand for Water, Access to Water)</li><li>In this lesson, students will add to the Water Challenge anchor charts. As in Lesson 2, students will do this by creating sentence strips and attaching them to the anchor chart. Again, the purpose of having strips instead of writing directly on the anchor chart is for future scaffolding. Struggling students, when they begin writing, can pull these sentences directly off the chart and manipulate them into a cohesive paragraph. Writing single sentences from their research onto the sentence strips also provides students with the ability to translate notes from text into their own words.</li><li>Review: Gallery Walk (see Appendix 1).</li><li>Post: Learning targets.</li></ul> |



| Lesson Vocabulary                                              | Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (words in the lesson opening are to be determined by students) | <ul style="list-style-type: none"><li>• Asking and Answering Questions recording form (one per student)</li><li>• Asking and Answering Questions recording form (answers, for teacher reference)</li><li>• Research Vocabulary recording form (one per student)</li><li>• Student dictionaries (enough for research teams to access easily)</li><li>• Research texts in folders: eight copies of each text (for Lessons 8, 9, and 10)</li><li>• Water journal (for each individual student)</li><li>• Independent research directions (from Lesson 8)</li><li>• Water Challenges anchor chart</li><li>• Blank sentence strips to add to Water Challenge anchor chart (8–10 strips per water research team)</li><li>• Tape (one roll easily accessible for each research team)</li><li>• Vocabulary Homework (one per student)</li></ul> |





| Opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Meeting Students' Needs |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <p><b>A. Engaging the Reader: Finding Water and Power Words in Our Research (13 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students in the whole group area and have them sit next to their research buddy. Tell them that today they are going to continue researching with their research buddies about their water challenge. Explain that before they begin their research today, they are going to spend some time thinking about the vocabulary that they might have come across in their reading.</li><li>• Distribute students' <b>Asking and Answering Questions recording form</b> and accompanying text collected in the previous lesson.</li><li>• Display the <b>Research Vocabulary recording form</b>. Explain to students that they likely came across some tricky words when they were reading their texts. Explain that these are important words to keep track of, and the first step they are going to take is to talk to their buddies about the "power words" and "water words" they might have seen in their text, and record them on this form.</li><li>• Distribute the Research Vocabulary recording form to students. Students will need a pencil and a hard surface to write on. Ask students to work with their research buddy to review their text, looking for any power or water words that were tricky. Provide a quick model if necessary, but this work should be familiar to students.</li><li>• As students are working, circulate and note the words they are recording. Specifically look for words that students might not have figured out the meaning of to highlight in a few moments.</li><li>• After 5 minutes, pause students in their work. Ask students:<ul style="list-style-type: none"><li>* "Did some of you identify a word in your research text that you couldn't figure out the meaning of?"</li></ul></li><li>• Invite students to put their thumb up if they had a word they weren't sure about. Select one student word to model for the class.</li><li>• Using one of the <b>student dictionaries</b>, model for students how to use this resource to find the meaning of a word. Record this word and the definition on the displayed Research Vocabulary recording form. For example, a model could be "sediment." Say: "I know from the text that this has something to do with water, so I will put it as a 'water word.' Let's look in the S section, closer to the front of the S section because the next letter is E. Sediment: Matter that settles at the bottom of a liquid. Oh, so that's like all the mud at the bottom of the water."</li><li>• Give students another 4 minutes to practice finding a word from their list in the dictionary.</li><li>• After 4 minutes, pause students in their work and tell them that they will use this same recording form for homework tonight. Tell students that as they research, they can simply circle or highlight a word they are unsure of and talk about it with their buddy, but they don't need to record it just yet. They will go back to it later for homework.</li></ul> |                         |



| Opening (continued)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Meeting Students' Needs |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <p><b>B. Unpacking Learning Targets (2 minutes)</b></p> <ul style="list-style-type: none"><li>• Invite one or two students to share the targets for today. Note that they are the same targets as the previous lesson.</li><li>• Ask students to talk to their research buddy:<ul style="list-style-type: none"><li>* “How were you able to meet these same targets in the previous lesson?”</li></ul></li><li>• Give students a moment to think and share together.</li><li>• Then, invite one or two partnerships to share their thinking.</li></ul> |                         |



| Work Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Meeting Students' Needs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>A. Researching with Research Buddies (25 minutes)</b></p> <ul style="list-style-type: none"><li>Place students' <b>research texts</b> in <b>folders</b> at the tables. Return students' <b>water journals</b> and a new Asking and Answering Questions recording form.</li><li>Tell students that today they will select a new text to read about their water challenge. Some students might have already begun a new text in the previous lesson. If so, tell them that they will simply continue with that text today.</li><li>Remind students that they should look at their recording form from the previous day to remind themselves of their questions and of the text they selected. This will help them be thoughtful about the next text they might want to read. Give students a few minutes to preview their texts. Circulate around the tables. Help students select a new text.</li><li>Once each pair of students has selected a text, ask them to review the <b>independent research directions</b> (from Lesson 8; in their water journal) to remind themselves of the process.</li><li>Then refocus students whole group. Using thumbs-up, check for understanding of directions: thumbs-up if they are clear on next steps, thumbs-down if not. Scan the room and clarify any questions.</li><li>As students read, circulate and confer with research buddies. Use information gathered in informal observations from the previous lesson to guide conferring. (See teaching note for suggestions.)</li><li>Consider asking the following sorts of conferring questions:<ul style="list-style-type: none"><li>* "Let's look at your recording for—what have you captured so far?"</li><li>* "Are you finding new information about your challenge today? Is there anything similar to what you read about previously?"</li></ul></li></ul> | <ul style="list-style-type: none"><li>Note: The following suggestions appear in Lessons 8–10. These supports apply in each of these lessons as students continue with their research in each lesson.</li><li>Guide struggling learners as they select texts.</li><li>Support them in choosing from the texts supplied, or the texts you have gathered. They should choose ones that will be easier for them to navigate with features that are more obvious and support making meaning, and texts that are less complex and shorter.</li><li>Once partnerships have selected a text, support struggling learners by having them read a smaller chunk of the text first and recording their key details.</li></ul> |



| Work Time (continued)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Meeting Students' Needs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• If you see that students are struggling with a specific article, consider pulling a smaller group. Additionally, confer closely with struggling buddies. Whether conferring with a small group or research buddies, identify what they currently understand about the article and where they are struggling. Read aloud a small chunk of the text, connect, unpack vocabulary together, or connect them with another research buddy pair that read the same article in the previous lesson.</li><li>• As in Lesson 8, the options for students who might finish early are:<ol style="list-style-type: none"><li>1. Research buddies may select another text from the research folder to begin reading.</li><li>2. They can each choose to read their independent reading book.</li><li>3. They can each select a text from the recommended text list to read together or on their own.</li></ol></li></ul> | <ul style="list-style-type: none"><li>• Confer with these partnerships first during the research time. Provide support by guiding their work. Read a passage aloud and ask them to tell you the key details they heard. Direct them to write that down. Give them a focus question to think about as they read the next section on their own. This focus question should relate to the text they are reading, and help them to find information in the text.</li><li>• Provide specific time periods for struggling learners within the 30-minute timeframe. For example, explain to students that in 10 minutes you are going to check on them again and they should be at a specific point in their reading, ready to talk about the details they have found.</li></ul> |



| Work Time (continued)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Meeting Students' Needs |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <p><b>B. Adding Information to our Water Challenges Anchor Charts (15 minutes)</b></p> <ul style="list-style-type: none"><li>• After 30 minutes, pause students in their work and focus their attention. Ask students to bring their recording forms and water journals to the whole group area and form a smaller circle with their research team.</li><li>• Tell students that they are now going to add information to the <b>Water Challenges anchor charts</b> that the class started in Lesson 6.</li><li>• Give each research team their anchor chart (place it in the middle of their small circle). Also give each team <b>8–10 blank sentence strips</b>. Remind students that in Lesson 1, they had a “Fact Frenzy” where they wrote down what they knew about water and then that became the What We Want People to Know about Water anchor chart. Tell students that they are going to build the same kind of anchor chart with their own research topic.</li><li>• Give directions:<ol style="list-style-type: none"><li>1. Each research buddy pair will review your recording forms from today’s research and the previous day’s research.</li><li>2. Then, write down in a complete sentence the key details you discovered in their research on the blank sentence strips (one sentence for each strip).</li></ol></li><li>• Model this process by asking one buddy pair to share a key detail they discovered. Write this detail in a complete sentence on the sentence strip. For example, this could look like: Key detail from recording form: Cow manure pollutes. Write: “Cow manure pollutes the water when it washes into streams with the rain.”</li><li>• Give students 7 or 8 minutes to work in their research teams to complete their sentence strips. Remind students to use their research texts and recording forms to help them.</li><li>• Pause students for the next step. Tell students that now each buddy pair will share their sentence strips with their research team. Encourage research teams to be sure each person gets to share one of his/her strips.</li><li>• As in Lesson 2, if they find similar sentences, they should clip them together. Once they have shared their strips, have students attach their sentence strips to their anchor chart with <b>tape</b>.</li></ul> |                         |



| Closing and Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Meeting Students' Needs |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <p><b>A. Gallery Walk of Anchor Charts (5 minutes)</b></p> <ul style="list-style-type: none"><li>• After students complete the process of taping all the sentence strips onto their anchor chart, invite one member of each team to place their chart on a table in the room. Then, tell students that they are now going to be able to see what the other research teams have found out in their research so far through a Gallery Walk.</li><li>• Remind students that the Gallery Walk is a quiet time to look at a particular piece of work. Assign each research team a new Water Challenge chart to review. After 2 or 3 minutes, ask teams to move to the other Water Challenge chart.</li><li>• Then, collect students' water journals with today's recording form inside and the attached accompanying text that students read. Collect the anchor charts to display in future lessons.</li></ul> |                         |
| Homework                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Meeting Students' Needs |
| <ul style="list-style-type: none"><li>• Choose to bring home one of the articles you have read about your research topic. Reread this text and complete the <b>Vocabulary homework</b>.</li></ul> <p><i>Note: Review students' recording forms and texts. Look for students' understanding of the text and their ability to pull out information related to their research topic. Make further adjustments to the process as necessary.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |



EXPEDITIONARY  
LEARNING

# Grade 3: Module 4: Unit 2: Lesson 9

## Supporting Materials



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Asking and Answering Questions  
Recording Form

| Part 1              | Part 2                    |               |                           |
|---------------------|---------------------------|---------------|---------------------------|
| My Initial Question | Key Details from the Text | Text Location | New Questions or Thinking |
|                     |                           |               |                           |
|                     |                           |               |                           |
|                     |                           |               |                           |
|                     |                           |               |                           |

**Part 3: Quick Write**

What is the most important information for people to know about this topic?

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Asking and Answering Questions

Recording Form  
For Teacher Reference

| Part 1                 | Part 2                                                                                                           |                                 |                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------|
| My Initial Question    | Key Details from the Text                                                                                        | Text Location                   | New Questions or Thinking                                                            |
| XXX                    | Dirt pollutes water!                                                                                             | 3 Big Pollutants<br>Paragraph 1 | How can dirt be so bad?                                                              |
| Why is dirt a problem? | Dirt can kill little animals.<br>Dirt blocks the sunlight.<br>Dirt goes into streams when the land is disturbed. | Paragraph 1                     | XXX                                                                                  |
| What are bacteria?     |                                                                                                                  | Paragraph 2                     | I still wonder what bacteria are.                                                    |
|                        | Bacteria can make people sick.<br>Bacteria come from sewers—poop.                                                | Paragraph 2                     | That's the same as the manure! People poop and animal poop makes the water polluted. |

**Part 3: Quick Write**

What is the most important information for people to know about this topic?

Animal and people poop pollute the water. It makes people sick if they drink the water.



Research Vocabulary  
Recording Form

Text Title: \_\_\_\_\_

| Power word | What I think it means ... |
|------------|---------------------------|
|            |                           |
|            |                           |
|            |                           |
|            |                           |

| Water word | What I think it means ... |
|------------|---------------------------|
|            |                           |
|            |                           |
|            |                           |
|            |                           |

How does learning these words help you become a stronger reader?

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Vocabulary Homework

Reread your text. Collect 3–5 power words or water words from your text. Use a dictionary to help you with the words if you can't figure them out in context.

Text Title: \_\_\_\_\_

| Power word | What I think it means ... |
|------------|---------------------------|
|            |                           |
|            |                           |
|            |                           |
|            |                           |

| Water word | What I think it means ... |
|------------|---------------------------|
|            |                           |
|            |                           |
|            |                           |
|            |                           |



Vocabulary Homework

How does learning these words help you become a stronger reader?

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Vocabulary Homework  
For Teacher Reference

Reread your text. Collect 3–5 power words or water words from your text. Use a dictionary to help you with the words if you can't figure them out in context.

Text Title: \_\_\_\_\_

| Power word         | What I think it means ...               |
|--------------------|-----------------------------------------|
| <b>Murky</b>       | <b>I think it means cloudy or foggy</b> |
| <b>Impairment</b>  | <b>Damaged or weakened</b>              |
| <b>Maintaining</b> | <b>Keeping up</b>                       |
|                    |                                         |

| Water word         | What I think it means ...     |
|--------------------|-------------------------------|
| <b>Stream bank</b> | <b>The edge of the stream</b> |
|                    |                               |
|                    |                               |
|                    |                               |

How does learning these words help you become a stronger reader?

The more words I know, the more I build my reading power. It helps me be able to read harder books.



EXPEDITIONARY  
LEARNING

# **Grade 3: Module 4: Unit 2: Lesson 10**

## **Completing Independent Research: The Challenges to Having Enough Clean Water for Everyone**



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**Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)**

I can conduct a research project to become knowledgeable about a topic. (W.3.7)

I can determine the main idea of an informational text. (W.3.2)

I can retell key ideas from an informational text. (W.3.2)

**Supporting Learning Targets**

- I can ask and answer questions about the text I choose in order to build my knowledge about one specific challenge related to having enough clean water for everyone.
- I can identify key facts and details about my challenge topic.

**Ongoing Assessment**

- Vocabulary homework (from Lesson 9)
- Asking and Answering Questions recording form, with text attached



| Agenda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Teaching Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"><li>1. Opening<ol style="list-style-type: none"><li>A. Engaging the Reader: Sharing Our Vocabulary Homework (10 minutes)</li><li>B. Unpacking Learning Targets (5 minutes)</li></ol></li><li>2. Work Time<ol style="list-style-type: none"><li>A. Researching with Research Buddies (25 minutes)</li><li>B. Adding Information to Research Topic Anchor Chart (10 minutes)</li></ol></li><li>3. Closing and Assessment<ol style="list-style-type: none"><li>A. Exit Ticket: My Successes as a Researcher (10 minutes)</li></ol></li><li>4. Homework<ol style="list-style-type: none"><li>A. Reread your research text. Complete the Vocabulary homework.</li></ol></li></ol> | <ul style="list-style-type: none"><li>• This lesson continues the research that was launched in Lesson 8. Students continue to work with their research buddies within their research team on their selected topic.</li><li>• Make any adjustments to the research process that you deemed necessary after Lessons 8 and 9 (i.e., plan a whole group mini lesson on an area of struggle for students, determine which buddies or research teams to support first while conferring, etc.).</li><li>• Students will add to the word wall in this lesson. Prepare the materials for the power word and water word wall (either use index cards that go on a large bulletin board or the anchor charts of power and water words). At the start of class, display the Research Topic anchor charts from Lesson 9. Then, during Work Time Part B, distribute the charts to each research team.</li><li>• In advance: Gather recommended texts again for students who finish early.</li></ul> |



| Lesson Vocabulary                                        | Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (students identify and document words within the lesson) | <ul style="list-style-type: none"><li>• Vocabulary homework (from Lesson 9)</li><li>• Water journals (with recording forms and independent research directions inside)</li><li>• Equity sticks</li><li>• Asking and Answering Questions recording form (one per student)</li><li>• Research texts in folders: eight copies of each text (for Lessons 8–10)</li><li>• Water Challenges anchor charts (from Lesson 6-9)</li><li>• Blank sentence strips (8–10)</li><li>• Tape (one roll easily accessible for each research team)</li><li>• Exit ticket (one per student)</li><li>• Vocabulary Homework (one per student)</li></ul> |



| Opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Meeting Students' Needs |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <p><b>A. Engaging the Reader: Sharing Our Vocabulary Homework (10 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students in the whole group area. Ask students to bring their <b>vocabulary homework</b> from the previous lesson with them. Distribute their <b>water journals</b>, with the previous lesson's recording form inside.</li><li>• Ask research buddies to get together with another research buddy pair. These pairs might have selected the same article, but it isn't necessary. Give students a few minutes to share their words and definitions.</li><li>• Then, focus students' attention. Ask students to think about the words that their group was sharing. Ask them:<ul style="list-style-type: none"><li>* "What is the most important word you shared—either because it was interesting, it was tricky, or you had to find it in the dictionary?"</li></ul></li><li>• Give students a minute to select their word.</li><li>• Then, ask each group to share their word and its meaning. Have students identify whether it is a power word or a water word. If students share a word they didn't know, give other students in the class an opportunity to define it. If they don't know, define it for the class quickly. Record each of the words and their meaning for the word wall.</li><li>• Note for students that they are building a strong bank of words. Remind students that building their word power is an important tool to help them become even stronger readers.</li></ul> |                         |
| <p><b>B. Unpacking Learning Targets (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Invite one or two students to share the targets for today. Note that they are the same targets that they have been working on since they began researching. Ask:<ul style="list-style-type: none"><li>* "What is something you need to continue to do or do today to meet these targets?"</li></ul></li><li>• Give students a moment to talk together. Using <b>equity sticks</b>, invite one or two students to share their thinking.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |



| Work Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Meeting Students' Needs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <p><b>A. Researching with Research Buddies (25 minutes)</b></p> <ul style="list-style-type: none"><li>• Distribute a new <b>Asking and Answering Questions recording form</b>. Place students' <b>research texts</b> in <b>folders</b> at the tables. Tell students that one important thing they are building in this research process is stamina. Congratulate students on the fact that they are entering into their third day of research and that they show great stamina for reading, thinking, and writing.</li><li>• Refer to the <b>Water Challenges anchor charts</b> from the previous lesson. With enthusiasm, note how much knowledge students have built about these challenges. Highlight that building knowledge through reading is what good researchers do and praise their efforts as researchers.</li><li>• Remind students that they should follow the same process today as in the previous lessons for research:<ol style="list-style-type: none"><li>1. Determine which text to read.</li><li>2. Review the independent research directions.</li><li>3. Review the previous lesson's recording form.</li><li>4. Begin reading new text and taking notes on new recording form.</li></ol></li><li>• Clarify any questions about the process that students might have.</li><li>• Invite students to begin. Confer first with any buddy pair or water challenge group that you identified as needing extra support when reviewing their recording forms from Lesson 9.</li><li>• If no students need specific support right away, circulate around the room and confer with buddies and research teams.</li><li>• As in the previous lessons, keep the following questions in mind when conferring:<ul style="list-style-type: none"><li>* "Let's look at your recording form—what have you captured so far?"</li><li>* "Are you finding new information about your challenge today? Is there anything similar to what you read about previously?"</li><li>* "Let's look at your water challenge anchor chart. Did some information from the chart spark a new question for you?"</li><li>* "What is the most important thing you have discovered in this text about your topic so far?"</li></ul></li></ul> | <ul style="list-style-type: none"><li>• Note: The following suggestions appear in Lessons 7–9. This support applies to each of these lessons as students continue with their research in each lesson.</li><li>• Guide struggling learners as they select texts. Support them in choosing from the texts supplied, or the texts you have gathered, a text that will be easier for them to navigate, i.e., text features that are more obvious and support making meaning, a text that is less complex, a text that is shorter, etc.</li><li>• Once partnerships have selected a text, support struggling learners by having them read a smaller chunk of the text first and recording their key details.</li></ul> |



| Work Time (continued)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Meeting Students' Needs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <ul style="list-style-type: none"><li>• As in Lessons 8 and 9, suggest options for students who might finish early:<ol style="list-style-type: none"><li>1. Research buddies may select another text from the research folder to begin reading.</li><li>2. They can each choose to read their independent reading book.</li><li>3. They can each select a text from the recommended text list to read together or on their own.</li></ol></li><li>• After 25 minutes, pause students in their work and focus their attention. Ask students to bring their recording forms and water journals to the whole group area and form a circle with their research teams.</li><li>• Tell students that they are now going to add new information to their anchor charts. Distribute the Water Challenges anchor charts to each research team, placing it in the center of their small circle. Distribute to each team <b>8–10 blank sentence strips</b>. Remind students of the process:<ol style="list-style-type: none"><li>1. As buddy pairs, review your recording forms from today's research and the previous day's research.</li><li>2. Then, in a complete sentence, write down the key details you discovered in their research on the blank sentence strips (one sentence for each strip).</li></ol></li><li>• Give students 7 or 8 minutes to complete their sentence strips.</li><li>• Then, pause students for the next step. Tell students that now they are going to share their sentence strips with their research team. Explain that this time, they will have to look in two places to determine if the information is new. Remind them that some of their information might actually be the same because two pairs read the same article today or it might have been recorded by another research buddy pair in the previous lesson. Their job in sharing this time is to make sure that only new information gets placed on the anchor chart.</li><li>• Give students a few minutes to <b>tape</b> their new information onto their anchor chart.</li></ul> | <ul style="list-style-type: none"><li>• Confer with these partnerships first during the research time. Provide support by guiding their work. Read a passage aloud and ask them to tell you the key details they heard. Direct them to write that down. Give them a focus question to think about as they read the next section on their own. This focus question should relate to the text they are reading, and help them to find information in the text.</li><li>• Provide specific time periods for struggling learners within the 30-minute timeframe. For example, explain to students that in 10 minutes you are going to come check on them again and they should be at a specific point in their reading, ready to talk about the details they have found.</li></ul> |



| Work Time (continued)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Meeting Students' Needs |
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| <p><b>B. Adding Information to our Water Challenges Anchor Charts (10 minutes)</b></p> <ul style="list-style-type: none"><li>• After 25 minutes, pause students in their work and focus their attention. Ask students to bring their recording forms and water journals to the whole group area and form a smaller circle with their research team.</li><li>• Tell students that they are now going to add information to the Water Challenge anchor charts that the class started in Lesson 2.</li><li>• Give each research team their anchor chart (place it in the middle of their small circle). Also give each team <b>8–10 blank sentence strips</b>. Remind students that in Lesson 1, they had a “Fact Frenzy” where they wrote down what they knew about water and then that became the What We Want People to Know about Water anchor chart. Tell students that they are going to build the same kind of anchor chart with their own research topic.</li><li>• Give directions:<ol style="list-style-type: none"><li>1. Each research buddy pair will review your recording forms from today’s research and the previous day’s research.</li><li>2. Then, write down in a complete sentence the key details you discovered in their research on the blank sentence strips (one sentence for each strip).</li></ol></li><li>• Model this process by asking one buddy pair to share a key detail they discovered. Write this detail in a complete sentence on the sentence strip. For example, this could look like: Key detail from recording form: Cow manure pollutes. Write: “Cow manure pollutes the water when it washes into streams with the rain.”</li><li>• Give students 7 or 8 minutes to work in their research teams to complete their sentence strips. Remind students to use their research texts and recording forms to help them.</li><li>• Pause students for the next step. Tell students that now each buddy pair will share their sentence strips with their research team. Encourage research teams to be sure each person gets to share one of his/her strips.</li><li>• As in Lesson 2, if they find similar sentences, they should clip them together. Once they have shared their strips, have students attach their sentence strips to their anchor chart with <b>tape</b>.</li></ul> |                         |





| Closing and Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Meeting Students' Needs |
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| <p><b>A. Exit Ticket: My Successes as a Researcher (10 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students in the whole group area. Invite one member of each team to hang up their anchor chart.</li><li>• Ask a spokesperson from each research team to share one new piece of information from their research.</li><li>• Congratulate students on their work, offering specific, warm feedback about their learning today. This could be something about how they worked together, their attention to the texts they were reading, or their ability to work with their research teams.</li><li>• Tell students that this is the last day of their research. Explain that learning how to conduct research is a very important skill and is something they will keep practicing throughout their entire school career, including college. Many adults also research topics regularly either for their jobs or just because they want or need to learn more about something.</li><li>• Tell students that you want them to reflect on their successes as researchers today. Distribute an <b>exit ticket</b> for each student. Review the exit ticket with students, noting the list that will help them identify their specific successes. Give students a few minutes to think about and complete their exit ticket.</li><li>• Then, collect students' exit tickets and their water journals with today's recording form inside. Collect the anchor charts to display later. Transition students to the next portion of their day.</li></ul> |                         |
| Homework                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Meeting Students' Needs |
| <ul style="list-style-type: none"><li>• Reread your research text. Complete the <b>Vocabulary homework</b>.</li></ul> <p><i>Note: Review the End of Unit 2 Assessment in Lesson 11 to gather appropriate materials. Students will write two paragraphs to inform their reader about the water challenges they have researched. Students will use the Water Challenge anchor charts as a resource, along with their recording forms and water journals. Students will also review their Water on Earth paragraphs (from Lesson 2) with a partner before they do their assessment. Gather these paragraphs and the criteria/feedback to distribute at the beginning of Lesson 11.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |



EXPEDITIONARY  
LEARNING

# Grade 3: Module 4: Unit 2: Lesson 10

## Supporting Materials



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Asking and Answering Questions  
Recording Form

| Part 1              | Part 2                    |               |                           |
|---------------------|---------------------------|---------------|---------------------------|
| My Initial Question | Key Details from the Text | Text Location | New Questions or Thinking |
|                     |                           |               |                           |
|                     |                           |               |                           |
|                     |                           |               |                           |
|                     |                           |               |                           |

**Part 3: Quick Write**

What is the most important information for people to know about this topic?

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Asking and Answering Questions  
Recording Form – Student Sample

| Part 1                     | Part 2                                                                  |               |                                            |
|----------------------------|-------------------------------------------------------------------------|---------------|--------------------------------------------|
| My Initial Question        | Key Details from the Text                                               | Text Location | New Questions or Thinking                  |
| XX                         | Industry or factories aren't the biggest problem.                       | Paragraph 1   | Is pollution to water worse in big cities? |
| What about city pollution? | Rain washes fertilizer, animal poop, and oil into the streams or lakes. | Paragraph 1   | XX                                         |
| What does impervious mean? | Water doesn't soak in.                                                  | Paragraph 2   | I think it means that water can't get in.  |
| What can people do?        | People put trash in the gutters. This makes pollution.                  | Paragraph 2   | People should stop littering!              |

**Part 3: Quick Write**

What is the most important information for people to know about this topic?

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Exit Ticket

As researchers, you have done many things to build your knowledge about a topic. This is what researchers do: They read to find answers to their questions and build their knowledge. Here are some things that you have practiced as researchers in the last few lessons:

- Finding key details in a text about your water challenge
- Asking questions to help you find out more information
- Working with a research buddy to read your texts
- Figuring out challenging words in your texts
- Taking notes and recording information about your water challenge
- Sharing and collaborating with your research team to add to your knowledge

Think about your successes as a researcher. What have you done successfully? Use the list above to help you with your thinking.

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Vocabulary Homework

Reread your text. Collect 3–5 power words or water words from your text. Use a dictionary to help you with the words if you can't figure them out in context.

Text Title: \_\_\_\_\_

| Power word | What I think it means ... |
|------------|---------------------------|
|            |                           |
|            |                           |
|            |                           |
|            |                           |

| Water word | What I think it means ... |
|------------|---------------------------|
|            |                           |
|            |                           |
|            |                           |
|            |                           |



Vocabulary Homework

How does learning these words help you become a stronger reader?

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EXPEDITIONARY  
LEARNING

## **Grade 3: Module 4: Unit 2: Lesson 11**

**End of Unit Assessment:** On-Demand Writing to Inform Your Reader about the Challenges to Having Enough Clean Water for Everyone



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**Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)**

I can write informative/explanatory texts that convey ideas and information clearly. (W.3.2)

- a. I can write an informative/explanatory text that has a clear topic.
- b. I can develop the topic with facts, definitions, and details.
- c. I can use linking words and phrases to connect ideas within categories of information. (e.g., also, another, and, more, but)
- d. I can construct a closure on the topic of an informative/explanatory text.

With support from peers and adults, I can use the writing process to plan, revise, and edit my writing. (W.3.5)

**Supporting Learning Targets**

- I can write a two-paragraph essay to inform my reader about the challenges of having enough clean water for everyone.
- I can use a planning page and my note-catchers to help me organize my information clearly.

**Ongoing Assessment**

- End of Unit 2 Assessment
- Tracking My Progress, End of Unit 2 recording form



| Agenda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Teaching Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <ol style="list-style-type: none"><li>1. Opening<ol style="list-style-type: none"><li>A. Engaging the Writer: Sharing our Informative Paragraphs about Water and Unpacking Learning Targets (10 minutes)</li></ol></li><li>2. Work Time<ol style="list-style-type: none"><li>A. End of Unit Assessment, Part 1: Planning My Essay (10 minutes)</li><li>B. End of Unit Assessment, Part 2: Writing My Essay (35 minutes)</li></ol></li><li>3. Closing and Assessment<ol style="list-style-type: none"><li>A. Tracking My Progress (5 minutes)</li></ol></li><li>4. Homework<ol style="list-style-type: none"><li>A. Share with your family what you know about the challenges to having clean water.</li></ol></li></ol> | <ul style="list-style-type: none"><li>• In this end of unit assessment, students write a two-paragraph essay. In both Units 1 and 2, students have had the opportunity to practice writing paragraphs to inform their reader what they have learned about water. This assessment requires students to apply their paragraph writing skills more independently as they write two separate paragraphs on-demand.</li><li>• The rubric for this assessment is the same rubric used in Module 3A. Review this rubric in advance. Consider posting the anchor chart with student-friendly language that was created across several lessons in Module 3A, Unit 3. Review with students at the beginning of Work Time A if this anchor chart is used.</li></ul> |

| Lesson Vocabulary | Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| essay             | <ul style="list-style-type: none"><li>• Students' Water on Earth paragraph (from Lesson 2)</li><li>• Equity sticks</li><li>• Water journals</li><li>• End of Unit 2 Assessment: Writing to Inform Your Reader (one per student)</li><li>• Water Challenges anchor chart(s) (from Lessons 6-9)</li><li>• End of Unit 2 Assessment rubric (one for display)</li><li>• Document camera</li><li>• Tracking My Progress, End of Unit 2 recording form (one per student)</li></ul> |



| Opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Meeting Students' Needs |
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| <p><b>A. Engaging the Writer: Sharing our Informative Paragraphs about Water and Unpacking Learning Targets (10 minutes)</b></p> <ul style="list-style-type: none"><li>• Gather students in the whole group area. Distribute students' work from Lesson 2, their <b>Water on Earth paragraph</b>, and the accompanying feedback. Tell students that when they wrote this paragraph, their job was to try and teach their reader something about water. Point out that since that lesson, students have learned a lot about this topic.</li><li>• Give students a few moments to review their feedback and reread their writing with the following question in mind:<ul style="list-style-type: none"><li>* "As a writer, what did you do to teach your reader?"</li></ul></li><li>• Invite students to share their writing with their partner. Ask students to:<ol style="list-style-type: none"><li>1. Read their reading aloud to their partner.</li><li>2. Share how they tried to teach their reader by showing their partner a specific passage or sentence.</li></ol></li><li>• Then, using <b>equity sticks</b>, call on 3 or 4 students to share with the class. Listen for students to say things like: "My partner and I both gave important facts about water," or "I tried to make my writing interesting so my reader would want to learn about water."</li><li>• Tell students that today they will get to teach their reader all the important information they have learned about the challenges to water. Explain to students that this short essay is going to require them to think about the most important things they have learned about their water challenge. They will need to choose from all the information they have gathered about their water challenge to find the best way to inform their reader about the challenges to clean water.</li><li>• Tell students that just like other end of unit assessments, they are going to show what they can do on their own. Give students a specific piece of praise about their writing from Lesson 2. This could sound like: "In your initial water paragraph, I noticed many of you using the most important facts and details that we learned about water. You put those facts together in an interesting way."</li><li>• Then, direct students' attention to the learning targets. Invite two students to read aloud the two targets. Ask students to think and then talk with a partner:<ul style="list-style-type: none"><li>* "Based on what you have already done as writers this year, what's familiar about these targets?"</li></ul></li></ul> |                         |



| Opening (continued)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Meeting Students' Needs |
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| <ul style="list-style-type: none"><li>• Then, using equity sticks, call on a few students to share their responses. Listen for students to say things like: “We have written lots of paragraphs this year,” or “We always use a planning page to help us with our writing.”</li><li>• Focus students’ attention on the word <i>essay</i>. Ask:<ul style="list-style-type: none"><li>* “What do you already know about that word?”</li></ul></li><li>• Give students a minute to think and talk together. Then invite someone to share what that word means. Guide students to the definition that an essay is a piece of writing that is usually more than one paragraph about a certain topic. The word <i>essay</i> actually comes from French, and literally means “to try.” Tell students that is what they are going to be doing today: “trying” out their ideas in more detail.</li><li>• Tell students that the difference with this end of unit assessment is that instead of writing just one paragraph, they will write two. Express confidence in students’ ability to do this much writing by reminding them of how much they have written throughout the year.</li></ul> |                         |



| Work Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Meeting Students' Needs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <p><b>A. Planning: On-Demand End of Unit 2 Assessment (10 minutes)</b></p> <ul style="list-style-type: none"> <li>• Be sure that students have their <b>water journals</b> containing their recording forms and the texts they have read. Distribute and display the <b>End of Unit 2 Assessment: Writing to Inform Your Reader</b>.</li> <li>• Focus students on the planning page. Ask students to take a minute to talk with a new partner (on their other side) about this question:             <ul style="list-style-type: none"> <li>* “What is the prompt for this assessment asking you to do?”</li> </ul> </li> <li>• Then, using equity sticks, select 3 or 4 students to share out. Listen and guide students, to notice that their first paragraph should include information about all three challenges to water, and their second paragraph should include more detailed information about the one water challenge that they researched.</li> <li>• Help students think about what resources might support them in each paragraph:             <ul style="list-style-type: none"> <li>* Direct students’ attention to the <b>Water Challenges anchor chart(s)</b>. Remind students that these charts will help them choose the most important details they want to share in their first paragraph about all three challenges.</li> <li>* Remind students that the details for their second paragraph will come from their research.</li> </ul> </li> <li>• Ask students to take a few minutes with their partner to look at the charts and their planning page. Have students also scan through their research recording forms and the texts they read about their water challenge. Circulate among the whole group and answer any clarifying questions that arise.</li> <li>• Then, release students to do their planning for this assessment. Remind students to use their texts and research recording forms to support their planning. Explain to students that their planning page is a quick place to organize their thinking. Say to students that they don’t need to spend a lot of time writing out their plan, but instead, they should put just enough down to help them remember what they want to write. Remember that this planning is part of the assessment and that students should do this independently.</li> </ul> | <ul style="list-style-type: none"> <li>• This assessment is designed to mirror the kind of writing assessments students will see in the NY State assessments—namely, writing to a prompt. While the planning page itself is not formally assessed, students should be able to read a prompt and then plan and write to that prompt independently. However, some struggling learners might need more support. Use teacher judgment to determine whether there are some students who need support with the planning to be able to respond to the prompt at all. If there are students for whom this is the case, consider using the planning portion of the assessment to support struggling learners to get their own thinking out. Do not do the writing or planning for them, but rather confer with them and ask questions, such as: “What details might be important to inform your reader about the challenges to water?” and “What did you find out in your research about your challenge?”</li> </ul> |



| Work Time (continued)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Meeting Students' Needs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <p><b>B. Writing: On-Demand End of Unit 2 Assessment (35 minutes)</b></p> <ul style="list-style-type: none"><li>• Briefly refocus students whole group. Focus their attention on the <b>End of Unit Assessment rubric</b> displayed on the <b>document camera</b>. This rubric is the same rubric used throughout Module 3A and should be familiar to students. Give students a moment with a partner to review the rubric.</li><li>• Then, ask students to call out a few things they need to remember when they begin writing, based on the rubric.</li><li>• Transition students to writing. As students are writing, circulate around the room. Because this is an assessment, students need to work independently. However, continue to give students encouragement and answer any clarifying questions. Refer students back to their planning page if they get stuck on the writing. As with previous assessments, their writing should be done independently, so provide encouragement, but ensure that students do the writing on their own.</li><li>• Give students 35 minutes to complete their writing. Then, collect their work and invite them to come to the whole group area.</li></ul> | <ul style="list-style-type: none"><li>• ELLs receive extended time as an accommodation on NY State assessments.</li><li>• The Research Topic anchor charts were designed with the charts being made of taped sentence strips on index cards to support students' writing by allowing them opportunities to physically manipulate the information into a paragraph. Students will do this activity more in Unit 3. However, for students who struggle with writing, consider supporting them by having them select the sentence strips from the chart that they would want to use for their writing, and develop their planning sheet with these sentence strips. This supports their thinking and organization.</li><li>• Once students have developed their planning with these facts, have them use their planning sheet for their writing and not the sentence strips. Ensure that they do the actual writing on their own.</li></ul> |





| Work Time (continued) | Meeting Students' Needs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                       | <ul style="list-style-type: none"><li>• During the actual writing process, provide encouragement and focus, but give them the opportunity to do the writing on their own. If students were supported with the planning, note this on the rubric for reference.</li><li>• For struggling learners, consider asking them to focus their independent writing on only the second paragraph, which requires them to use their research. Assess their writing on the same rubric, but note that they wrote only one paragraph. At another time, confer with those students and support them to develop a second paragraph, either scribing for them or giving them the sentence strips from the Water Challenges anchor charts.</li></ul> |



| Closing and Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Meeting Students' Needs                                                                                                                                                                                                                                              |
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| <p><b>A. Tracking My Progress (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Distribute the <b>Tracking My Progress, End of Unit 2 recording form</b>. Remind students that this is a very familiar form for them. Tell them that it is important for them to have the opportunity to reflect on their learning and think about what they have done well. Tell them that this time, they are going to talk to each other as they complete their form.</li><li>• Using equity sticks, select random pairs of students. Tell students that they should share with their partner where they think they are in terms of meeting the target and how they know. Students should write their own Tracking My Progress form, but have the opportunity to share their thinking about it, since this is something they do frequently throughout the year.</li><li>• Give students a few minutes to complete the Tracking My Progress form.</li><li>• Collect students' completed Tracking My Progress forms. Congratulate students on their hard work writing. Tell students that this writing will help them in the next unit when they think hard about what should be done to help solve all the challenges of making sure everyone has enough clean water.</li></ul> | <ul style="list-style-type: none"><li>• Some students might benefit from a visual display, on a chart paper or the document camera, of sentence starters, such as: "I think I am accomplished at this target because ..." "I know I am at ... because ..."</li></ul> |
| Homework                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Meeting Students' Needs                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"><li>• Share with your family what you know about the challenges to having clean water. You won't have your writing, but share what you wrote about with your family.</li></ul> <p><i>Note: Assess students' end of unit writing using the rubric provided in the supporting materials. Students will review their writing for the opening of Unit 3, Lesson 1. Be sure to assess their writing before the start of that lesson.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                      |



EXPEDITIONARY  
LEARNING

# Grade 3: Module 4: Unit 2: Lesson 11

## Supporting Materials



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End of Unit 2 Assessment: Writing to Inform Your Reader  
Part 1: Planning Your Informative Essay

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Prompt:** What are the challenges to having enough clean water for everyone? After researching all the challenges that people face to having clean water, write a two-paragraph essay informing your reader about these challenges.

- Your first paragraph should inform your reader about each of the three challenges of water that we have researched together: access, pollution, and water usage.
- Your second paragraph should inform your reader with more details about the one challenge you researched in more detail.
- Be sure to use key facts and details from your research for each of these paragraphs.
- Remember to use linking words and phrases to connect your ideas together.
- Use your note-catchers to support your writing.

**Paragraph 1: Inform your reader what the three water challenges are. Use the Water Challenge anchor charts to support your thinking.**

|                       |  |
|-----------------------|--|
| <b>Topic Sentence</b> |  |
| <b>Detail</b>         |  |



End of Unit 2 Assessment: Writing to Inform Your Reader  
Part 1: Planning Your Informative Essay

|                            |  |
|----------------------------|--|
| <b>Detail</b>              |  |
| <b>Detail</b>              |  |
| <b>Conclusion Sentence</b> |  |



End of Unit 2 Assessment: Writing to Inform Your Reader  
Part 1: Planning Your Informative Essay

Paragraph 2: More Detail about the One Challenge You Researched

|                            |  |
|----------------------------|--|
| <b>Topic Sentence</b>      |  |
| <b>Detail/Reason</b>       |  |
| <b>Detail/Reason</b>       |  |
| <b>Detail/Reason</b>       |  |
| <b>Conclusion Sentence</b> |  |

End of Unit 2 Assessment: Writing to Inform Your Reader  
Part 2: Writing Your Essay

**Prompt:** What are the challenges to having enough clean water for everyone? After researching all the challenges that people face to having clean water, write a two-paragraph essay informing your reader about these challenges.

Remember the criteria you thought about as you planned your paragraph:

- Your first paragraph should inform your reader about each of the three challenges of water that we have researched together: access, pollution, and water usage.
- Your second paragraph should inform your reader with more details about the one challenge you researched in more detail.
- Be sure to use key facts and details from your research for each of these paragraphs.
- Remember to use linking words and phrases to connect your ideas together.
- Use your note-catchers to support your writing.

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Tracking My Progress

End of Unit 2

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Learning Target:** I can conduct a research project to become knowledgeable about a topic. (W.3.7)

1. Target in my own words:

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2. How am I doing? Circle one.

**I need more help to  
learn this.**



**I understand some  
of this.**



**I am on my way!**



3. Evidence to support my self-assessment:

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End of Unit 2 Assessment: Writing to Inform Your Reader  
Part 1: Planning Your Informative Essay  
Sample Student Response

**Paragraph 1: Inform your reader what the three water challenges are. Use the Water Challenge anchor charts to support your thinking.**

|                            |                                                                              |
|----------------------------|------------------------------------------------------------------------------|
| <b>Topic Sentence</b>      | Three big challenges to keeping water safe and clean                         |
| <b>Detail</b>              | Traveling far to get water - Uganda                                          |
| <b>Detail</b>              | Pollution in our water – fertilizer from crops                               |
| <b>Detail</b>              | Using water—and wasting it.                                                  |
| <b>Conclusion Sentence</b> | These challenges make it hard to keep our water clean and safe for everyone. |



End of Unit 2 Assessment: Writing to Inform Your Reader  
Part 1: Planning Your Informative Essay  
Sample Student Response

Paragraph 2: More Detail about the One Challenge You Researched

|                            |                                                                    |
|----------------------------|--------------------------------------------------------------------|
| <b>Topic Sentence</b>      | Access to water is a very big challenge for many people            |
| <b>Detail/Reason</b>       | Traveling distances is hard for moms, too                          |
| <b>Detail/Reason</b>       | Not having clean water makes it hard to grow crops                 |
| <b>Detail/Reason</b>       | Not having clean water makes people sick—washing hands             |
| <b>Conclusion Sentence</b> | Accessing clean water is one of the biggest challenges for people. |



**End of Unit 2 Assessment: Writing to Inform Your Reader**  
**Part 2: Writing Your Essay**  
**Sample Student Response**

There are three big challenges to keeping our water safe and clean. First, not everyone can easily get to clean water to drink and use. In Uganda, for example, people sometimes had to walk as much as twelve miles. For some kids, this means they couldn't even go to school because just getting water took so much time. Another challenge to our water resource is pollution. Fertilizer that runs off the soil and pollution from factories can make our water polluted. Finally, the demand on water is another big challenge. We use a lot of water in America. We waste water in lots of ways: letting the faucets run all the time, watering our lawns too much, and just not thinking about how much water we use. These challenges make it hard to keep our water clean and safe for everyone.

Access to water is a very big challenge for many people in the world. Traveling a great distance to get water makes people's lives very hard. Mothers also have to travel distances to get water, which means that they can't do other things in their villages or towns. People often can't grow their crops because they are spending so much time gathering water. Not having access to clean water also makes people sick. People get sick not just from drinking dirty water, but from not being able to wash their hands and not having clean bathrooms. Accessing clean water is one of the biggest challenges for people.



End of Unit 2 Assessment Rubric

| Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CCCS                                   | 4                                                                                                                                                                                                                                                                                                                          | 3                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>IDEAS</b><br/>(CONTENT AND ANALYSIS)<br/>The extent to which the essay conveys ideas and information clearly and accurately in order to support analysis of topics or text.</p> <p><b>(COMMAND OF EVIDENCE)</b><br/>The extent to which the essay presents evidence from the provided text to support analysis and reflection.</p> <p><i>*Note: To suit the task and to adapt to student-friendly language, these two categories from the NYSED rubric were merged together.</i></p> | <p>W.2<br/>R.1–9<br/>W.2<br/>R.1–8</p> | <ul style="list-style-type: none"> <li>clearly introduces topic in a manner that follows logically from the task and purpose</li> <li>demonstrates comprehension and analysis of the text</li> <li>develops the topic with relevant, well-chosen facts, definitions, and details throughout the essay</li> </ul>           | <ul style="list-style-type: none"> <li>clearly introduces a topic in a manner that follows from the task and purpose</li> <li>demonstrates grade-appropriate comprehensions of the text</li> <li>develops the topic with relevant facts, definitions, and details throughout the essay</li> </ul> |
| <p><b>ORGANIZATION</b><br/>(COHERENCE, ORGANIZATION, AND STYLE):<br/>The extent to which the essay logically organizes complex ideas, concepts, and information using formal style and precise language.</p>                                                                                                                                                                                                                                                                               | <p>W.2<br/>L.3<br/>L.6</p>             | <ul style="list-style-type: none"> <li>clearly and consistently groups related information together</li> <li>skillfully connects ideas within categories of information using linking words and phrases</li> <li>-provides a concluding statement that follows clearly from the topic and information presented</li> </ul> | <ul style="list-style-type: none"> <li>generally groups related information together</li> <li>-connects ideas within categories of information using linking words and phrases</li> <li>provides a concluding statement that follows form the topic and information presented</li> </ul>          |



End of Unit Assessment Rubric

| Criteria                                                                                                                                                                                                    | CCCS              | 4                                                                                                                      | 3                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CONVENTIONS<br/>(CONTROL OF CONVENTIONS):</b><br><br>The extent to which the essay demonstrates command of the conventions of standard English grammar, usage, capitalization, punctuation and spelling. | W.2<br>L.1<br>L.2 | <ul style="list-style-type: none"><li>demonstrates grade-appropriate command of conventions, with few errors</li></ul> | <ul style="list-style-type: none"><li>demonstrates grade-appropriate command of conventions, with occasional errors that do not hinder comprehension</li></ul> |



End of Unit Assessment Rubric

| Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CCCS                                   | 2                                                                                                                                                                                                                                                                                                                                | 1                                                                                                                                                                                                                                                                                                                                                      | 0                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>IDEAS<br/>(CONTENT AND ANALYSIS)</b><br/>The extent to which the essay conveys ideas and information clearly and accurately in order to support analysis of topics or text.</p> <p><b>(COMMAND OF EVIDENCE)</b><br/>The extent to which the essay presents evidence from the provided text to support analysis and reflection.</p> <p><i>*Note: To suit the task and to adapt to student-friendly language, these two categories from the NYSED rubric were merged together.</i></p> | <p>W.2<br/>R.1–9<br/>W.2<br/>R.1–8</p> | <ul style="list-style-type: none"> <li>introduces a topic in a manner that follows generally from the task and purpose</li> <li>demonstrates a confused comprehension of the text</li> <li>partially develops the topic of the essay with the use of some textual evidence, some of which may be irrelevant</li> <li></li> </ul> | <ul style="list-style-type: none"> <li>introduces a topic in a manner that does not logically follow from the task and purpose</li> <li>demonstrates little understanding of the text</li> <li>demonstrates an attempt to use evidence, but only develops ideas with minimal, occasional evidence, which is generally invalid or irrelevant</li> </ul> | <ul style="list-style-type: none"> <li>demonstrates a lack of comprehension of the text or task</li> <li>provides no evidence or provide evidence that is completely irrelevant</li> <li></li> </ul> |





End of Unit Assessment Rubric

| Criteria                                                                                                                                                                                                       | CCCS                       | 2                                                                                                                                                                                                                                     | 1                                                                                                                                                                                               | 0                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <p><b>ORGANIZATION (COHERENCE, ORGANIZATION, AND STYLE):</b></p> <p>The extent to which the essay logically organizes complex ideas, concepts, and information using formal style and precise language.</p>    | <p>W.2<br/>L.3<br/>L.6</p> | <p>exhibits some attempt to group related information together inconsistently connects ideas using some linking words and phrases provides a concluding statement that follows generally from the topic and information presented</p> | <p>exhibits little attempt at organization lacks the use of linking words and phrases provides a concluding statement that is illogical or unrelated to the topic and information presented</p> | <p>exhibits no evidence of organization -does not provide a concluding statement</p>                   |
| <p><b>CONVENTIONS (CONTROL OF CONVENTIONS):</b></p> <p>The extent to which the essay demonstrates command of the conventions of standard English grammar, usage, capitalization, punctuation and spelling.</p> | <p>W.2<br/>L.1<br/>L.2</p> | <ul style="list-style-type: none"> <li>demonstrates emerging command of conventions, with some errors that may hinder comprehension</li> </ul>                                                                                        | <ul style="list-style-type: none"> <li>demonstrates a lack of command of conventions, with frequent errors that hinder comprehension</li> </ul>                                                 | <ul style="list-style-type: none"> <li>minimal, making assessment of conventions unreliable</li> </ul> |



**End of Unit Assessment Rubric**

If the student writes only a personal response and makes no reference to the text(s), the response can be scored no higher than a 1.

Responses totally unrelated to the topic, illegible, incoherent, or blank should be given a 0.

A response totally copied from the text(s) with no original student writing should be scored a 0.