Grade 7: Module 4B: Unit 2: Lesson 5
Contrasting Authors’ Use of Evidence: Bottled Water
### Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

I can contrast how multiple authors emphasize evidence or interpret facts differently when presenting information on the same topic. (RI.7.9)
I can gather relevant information from a variety of sources. (W.7.8)
I can quote or paraphrase others’ work while avoiding plagiarism. (W.7.8)

### Supporting Learning Targets

<table>
<thead>
<tr>
<th>Supporting Learning Targets</th>
<th>Ongoing Assessment</th>
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<tbody>
<tr>
<td>• I can contrast how two authors interpret facts about bottled water differently.</td>
<td>• Thinking Log</td>
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<tr>
<td>• I can gather relevant information from <em>The Big Thirst</em>.</td>
<td>• Pages 183–186 of <em>The Big Thirst</em> Text-Dependent Questions Researcher’s notebook</td>
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## Agenda

1. **Opening**
   - A. Thinking Log (3 minutes)
   - B. Researcher’s Notebook: Questions and Answers (5 minutes)
   - C. Reviewing Learning Targets (1 minute)

2. **Work Time**
   - A. Contrasting Authors’ Use of Evidence (10 minutes)
   - B. Read-aloud of Pages 183–186 of *The Big Thirst* with Text-Dependent Questions (25 minutes)

3. **Closing and Assessment**
   - A. Reviewing Domain-Specific Vocabulary Anchor Chart (1 minute)

4. **Homework**
   - A. Reread pages 183–186 and fill out your researcher’s notebook under Text Selection 4.

## Teaching Notes

- **Opening**
  - This lesson is a continuation and refinement of skills learned in previous lessons within this unit, particularly Lesson 1, when students contrasted different authors’ use of evidence, and Lesson 4, when they interacted with the central ideas in *The Big Thirst* by answering text-dependent questions.
  - Work Time A incorporates a Venn diagram similar to that of Lesson 1. In this lesson, students read two excerpts about the issue of bottled water, a topic that is familiar to them (from the End of Unit 1 Assessment) but is not related to their current research question. The purpose behind this is to reinforce the discrete skill of contrasting authors’ use of evidence. If time allows, consider asking students to assess the credibility of these sources.
  - In Work Time A, if you wish to add an extra emphasis on incorporating multimedia evidence, consider substituting one of the excerpts for one of the Charles Fishman video clips used in Unit 1, Lesson 5.
  - Later, students may use the information learned in this lesson to augment the Internet research they will conduct beginning in Lesson 7.
  - The reading from *The Big Thirst* and the corresponding text-dependent questions in this lesson introduce the idea of the consequences of decisions about agricultural water management and the nuanced complexity of growing crops in dry, yet fertile soil, far away from a water source, which will be further developed in Lesson 6.
  - In many ways, this lesson signals a shift from simply collecting information about the management of water to forming opinions about the potential mismanagement of water. You may notice students beginning to form opinions or conclusions about irrigation in Australia. Try not to encourage or discourage a particular opinion as students naturally begin to ask questions and become more critical in their thinking about this particular issue. Refer back consistently to the idea that complex problems have complex solutions, with many consequences; students will need to think and rethink about their judgments.
  - In advance: Review the Fist to Five in Checking for Understanding techniques (See Appendix).
  - Post: Learning targets and the Evaluating an Argument anchor chart.
### Lesson Vocabulary

- basin, rangeland, irrigator, baron

### Materials

- Researcher’s notebook (begun in Lesson 3; one per student)
- Note Sheet: Four Types of Evidence (from Lesson 1; one per student)
- Evaluating an Argument anchor chart (begun in Unit 1, Lesson 7)
- Contrasting Evidence: Bottled Water (one per student)
- Venn diagram (one per student)
- Document camera
- Pages 183–186 of *The Big Thirst* Text-Dependent Questions (one per student and one to display)
- Pages 183–186 of *The Big Thirst* Close Reading Guide (for teacher reference)
- *The Big Thirst: The Secret Life and Turbulent Future of Water* (book; one per student)
- Domain-Specific Vocabulary anchor chart (begun in Unit 1)
### Opening

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<tr>
<th>A. Thinking Log (3 minutes)</th>
<th>Meeting Students’ Needs</th>
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<tr>
<td>• Invite students to take out their Thinking Logs and respond to this prompt under Lesson 5: “Based on what you read for homework, how have you expanded your understanding of water sustainability?”</td>
<td>• When possible, have students who need physical activity take on the active role of handing out materials.</td>
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<th>B. Researcher’s Notebook: Questions and Answers (5 minutes)</th>
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<td>• Have students take out their <strong>researcher’s notebooks</strong>. Ask them to hold up a Fist to Five about how comfortable and confident they feel with filling out its various sections—a fist meaning “I’m stuck!” and a five meaning “I understand it completely.” If you see a lot of fists to 3s, allow the next 5 minutes to answer any questions students may have.</td>
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<td>• If you see mostly 4s and 5s, ask students to compare their researcher’s notebooks to their seat partner’s and notice any discrepancies between the two. Circulate as they do this to look at different students’ notebooks, keeping an eye out for any students who may be struggling. Stop the class and point out any common misunderstandings or sections of the researcher’s notebooks where their entries need refinement.</td>
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<th>C. Reviewing Learning Targets (1 minute)</th>
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<td>• Direct students to the learning targets and read them aloud:</td>
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<td>* “I can contrast how two authors interpret facts about bottled water differently.”</td>
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<tr>
<td>• Explain that the first target is a new one, and the second is a continuation of the research process they have started. Specify that the students are taking “time out” from their research to compare and contrast evidence, giving them practice in understanding and identifying the different ways that sources develop and choose information.</td>
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## Work Time

### A. Contrasting Authors’ Use of Evidence (10 minutes)

- Tell students that today they will contrast two authors’ use of evidence on the topic of bottled water, much like they did in Lesson 1 when they compared Fishman and Kingsolver. Students will use the **Note Sheet: Four Types of Evidence** from Lesson 1 and the **Evaluating an Argument anchor chart** from Unit 1 to help them analyze the evidence provided.

- Distribute **Contrasting Evidence: Bottled Water** and the **Venn diagram**.

- Ask students to read along with you as you read the excerpts aloud. Pause after each sentence to allow them time to fill in their Venn diagrams.

- Point out the sources for both the excerpts and ask students to discuss with a partner whether the source seems credible, and why.

- Allow students an additional 4 minutes to reread the excerpts to themselves and finish filling out their Venn diagrams and the accompanying reflection question.

- Invite students to turn to their elbow partners and share what they wrote.

- After about 2 minutes of discussion, cold call a couple of students to share out with the class.

- Listen for students to apply their knowledge of the four types of evidence. For example: “Excerpt 1 uses more facts and statistics” or “Excerpt 2 uses first person as a way of sounding like an expert.”

- Ask students to put away their note sheets.

## Meeting Students’ Needs

- Keep in mind that this lesson requires visual comparison and written transferal of information. If students are visually or physically challenged, this process might be modified for them ahead of time so they are not unnecessarily impeded in categorizing and analyzing the evidence. Possible modifications include partially filled-in Venn diagrams, creating a Venn diagram on chart paper and/or lined paper instead of 8-by-11 paper, or giving the students items from the readings on sticky notes to physically sort on the Venn diagram.

- This lesson hinges on the accurate and full completion of two documents. Think ahead to whether any previous modifications to these materials for students with special needs will require similar modifications in this lesson. If a student struggles with taking notes, consider pairing him or her with a proficient student or giving examples from the text on sticky notes.

- Consider giving ELLs or struggling students pictures illustrating dry, arid landscapes and irrigation channels.
## Work Time (continued)

### B. Read-aloud of Pages 183–186 of The Big Thirst with Text-Dependent Questions (25 minutes)

- Display (using the document camera) and distribute Pages 183–186 of The Big Thirst Text-Dependent Questions. Guide students through this handout by using the Pages 183–186 of The Big Thirst Close Reading Guide (for teacher reference).

## Meeting Students’ Needs

## Closing and Assessment

### A. Reviewing Domain-Specific Vocabulary Anchor Chart (1 minute)

- Ask students:
  - “What new words were in today’s reading that we should add to the Domain-Specific Vocabulary anchor chart?”
  - Cold call students and listen for them to provide today’s vocabulary words, such as basin and irrigator. Write those words on the chart.

## Homework

- Reread pages 183–186 and fill out your researcher’s notebook under Text Selection 4.
Contrasting Evidence: Bottled Water

Excerpt 1:

In theory, bottled water in the United States falls under the regulatory authority of the Food and Drug Administration. In practice, about 70 percent of bottled water never crosses state lines for sale, making it exempt from FDA oversight.

On the other hand, water systems in the developed world are well-regulated. In the U.S., for instance, municipal water falls under the purview of the Environmental Protection Agency, and is regularly inspected for bacteria and toxic chemicals. Want to know how your community scores? Check out the Environmental Working Group’s National Tap Water Database.

While public safety groups correctly point out that many municipal* water systems are aging and there remain hundreds of chemical contaminants for which no standards have been established, there’s very little empirical** evidence that suggests bottled water is any cleaner or better for you than its tap equivalent.

* municipal—city-wide
** empirical—observable, provable


(Mother Nature Network)
Contrasting Evidence: Bottled Water

Excerpt 2

We think it's safer or more pure than tap water. Ironically, bottled water, in some cases, is the same water that comes from a tap, according to the film (Tapped), it just costs about 1,000 times more. In other cases, companies buy a parcel of land, pump the ground water and sell it in bottles. What if there’s a drought or an enforced water restriction? Oh well. You and I can't water our lawns, but the water keeps a-pourin’ into the plastic bottles at the factory.

So who regulates the safety of bottled water? The short answer is no one, according to the film. The FDA has jurisdiction only over bottled water that is sold in a different state in which it was pumped, but most water is sold in-state. Besides, the FDA is under-staffed. Quality tests are done by the companies that bottle and sell the water. Where I come from, we call this a conflict of interest.

On the other hand, municipal water distribution is highly regulated. The City of Columbia tests its water supply more than 4,000 times per year, or an average of 11 times per day. The water reports are public information, so any red flag is pounced upon by alert and thorough news reporters.

Source: http://www.columbiatribune.com/arts_life/family_life/blogs/word_from_a_mother/bottled-water-the-biggest-waste-of-all-time/article_7c7c49ac-f92d-5f9a2-8712-4b042dce0ac.html (Columbia Tribune)

Reprinted with permission of the Columbia Daily Tribune
Venn Diagram

Name: _____________________________

Date: _____________________________

Common Claim:

Evidence ONLY from Excerpt 1  Evidence in BOTH  Evidence ONLY from Excerpt 2
Reflection Question

1. Which author made the most convincing argument, and why? Use the criteria from the Evaluating an Argument anchor chart and the Note Sheet: Four Types of Evidence to support your answer. If you think both arguments were equally strong, your answer should include reasons why each of them was convincing.
1. A *basin* is a bowl-shaped area of land. Reread the first sentence of the second paragraph on page 186.
   a. Using context clues, determine what a *rangeland* is.
   b. What clues did you use to figure it out?

2. What does the line “It is no place to underestimate nature” mean?

3. Why do you think Fishman calls Laurie Arthur’s fields “The Big Dry”?

4. Fishman says, “Arthur, like all the farmers for hundreds of miles around, is an irrigator.”
   a. Based on the context around this sentence, what does *irrigator* mean?
   b. Why do you think it’s a problem when farmers have to rely on irrigation channels to water their crops?
5. A **baron** is like a captain or ruler of a certain business or industry. What does Fishman mean when he says, “In the Big Dry, Laurie Arthur is both a water baron and water prisoner”?

6. Why does Fishman use juxtaposition in this sentence?

7. According to Fishman, Arthur can grow enough food to feed 100,000 people for one year if he uses his six gigaliters of water, which is half the amount of water that the city of Toowoomba uses in a year. What do you think is the problem with this?
### Questions

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<td>b. What clues did you use to figure it out?</td>
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### Teacher Guide

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<th>(5 minutes)</th>
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<tr>
<td>Instruct students to open <em>The Big Thirst</em> to page 182.</td>
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Say:

* “Read along in your heads while I read aloud.”

Read page 182. After you have read this page, pause and project Question 1. Read Part A and then B aloud.

Ask the questions one at a time. For each question, ask students to think individually and then raise their hands when they know their answer. When most of the class has a hand up, call on several students to share out.

Listen for:

“*It’s a large area of land.*”

“*10,450 acres of field* and *wide-open*”
### Questions:

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<td>8.</td>
<td>What does the line “It is no place to underestimate nature” mean?</td>
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### Teacher Guide:

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<td><strong>(7 minutes)</strong></td>
<td>Say: <em>“Read silently in your heads as I continue to read aloud.”</em></td>
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Read from the top of page 183 to the line about halfway down the page that says: “The irrigation canals are dry, the Murray River itself is dry.”

Project and read aloud Question 2 and pause.

Ask students to think individually and then raise their hand when they have an answer. Cold call a student or two to share.

Listen for something like: “It’s a difficult place to live because it is so dry, so people have to respect nature.”

You may have to define the word *underestimate* for students. You can break down the word by asking what *estimate* and *overestimate* mean first, and then asking students what they think the word, and the line it’s in, mean.

Project and read aloud Question 3 and pause.

Ask students to think individually and then raise their hand when they have an answer. Cold call a student or two to share.

Listen for: “He calls it the Big Dry because the land has so little water.”
### Questions:

10. Fishman says, “Arthur, like all the farmers for hundreds of miles around, is an irrigator.”
   
   a. Based on the context around this sentence, what does irrigator mean?
   
   b. Why do you think it’s a problem when farmers have to rely on irrigation channels to water their crops?

### Teacher Guide:

(3 minutes)

Say:

* “Read silently in your heads as I continue to read aloud.”

Read from where you left off at the middle of page 184 to the middle of page 185, where it says: “Who in the world would imagine a quilt of emerald-green rice paddies here, in this semi-desert?”

Project and read aloud Question 4, Parts A and B.

Ask students to think individually and then raise their hand when they have an answer. Cold call a student or two to share.

Listen for:

“someone who uses water from one place in another place far away”

“If there isn’t enough water in the original source, the farmers’ crops could die.”
### Questions:

<table>
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<th>Question</th>
<th>Teacher Guide:</th>
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| 11. A baron is like a captain or ruler of a certain business or industry. What does Fishman mean when he says, “In the Big Dry, Laurie Arthur is both a water baron and water prisoner”? | (5 minutes) Say: *“Read silently in your heads as I continue to read aloud.”*  
Read from where you left off at the middle of page 185 to the middle of page 186, where it says: “In the Big Dry, Laurie Arthur is both a water baron and water prisoner.”  
Project and read aloud Question 5.  
Ask students to think individually and then raise their hand when they have an answer. Cold call a student or two to share.  
Listen for: “He is both controlling lots of water and being controlled by how much water there is. He is in charge of water use, but he doesn’t get to choose how much water there is.”  
Remind students about juxtaposition, which they discussed when they read Kingsolver.  
Then project and read aloud Question 6.  
Ask students to think individually and then raise their hands when they have an answer. Cold call a student or two to share.  
Listen for: “He uses juxtaposition to highlight the contrast between controlling large amounts of water and being helpless about how much water he himself might get.” |
| 12. Why does Fishman use juxtaposition in this sentence?                 |                                                                                                                                                                                                                |
### Questions:

13. According to Fishman, Arthur can grow enough food to feed 100,000 people for one year if he uses his six gigaliters of water, which is half the amount of water that the city of Toowoomba uses in a year. What do you think is the problem with this?

### Teacher Guide:

**(5 minutes)***

Say:

* “Read silently in your heads as I continue to read aloud.”

Read from where you left off through the first full paragraph on page 186, stopping where it says, “Arthur needs just 5.5 inches of water, his labor, and his land.”

Consider showing a picture of a liter-size water bottle or bringing one in.

Project and read aloud Question 7.

Ask students to think individually and then raise their hand when they have an answer. Cold call a student or two to share.

Listen for: “People need both food and water to live, so if he takes half the city’s water, even if he can feed them, he is creating a new problem because the city might run out of water.”