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## Causes and Effects of Harmful Algal Blooms

Algal blooms are present in surface water. However, under the right conditions, Harmful Algal Blooms (HABs) can develop. Excess nutrients from runoff over rural, urban and natural environments can contribute to HABs. Runoff from farm fields and large crop production into bodies of water carrying animal feces, shore bird droppings and other sewage can also carry these nutrients. The nutrients, along with warmer temperatures and sunlight, can cause the algae to bloom and damage along the shallow shoreline. Some HABs, such as cyanobacteria, can release toxins such as microcystin that can be deadly to drinking water systems as well as to other animals.

Fertilizer, Urban and Animal Waste Run-Off

Water Treatment Plant Inlet

# Nurturing Informed Thinking

Reading, Talking, and Writing  
Across Content-Area Sources

SUNDAY CUMMINS

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Portsmouth, NH 03801–3912  
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time, thanks to these amazing educators, the ideas for this book began to take root, and I realized I was ready to write.

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# Why Learn with Multiple Sources?



In a recent conversation with my seventh-grade daughter, she told me she was making plans to develop her own app. When I asked her how she planned to do this, she explained that she'd read several articles on the internet by app developers about how they got started. She told me that as she read, she realized most of the developers started by finding someone who knew more than they did, a mentor of sorts. One person had gone to a local university and found a technology student to help her get started; others had gone to local businesses and asked around. I had to smile. Weeks before, when Anna had first mentioned this endeavor, my husband and I had offered to find someone to help her get started, but she'd soundly rejected the idea. She had wanted to figure it out on her own. Reading multiple sources on this topic she cared about, though, had informed and transformed her thinking. Now she was embracing the idea of outside help.

What happened here? Anna had a question. She realized she didn't know enough about a topic that was important to her. She sought out multiple sources on the topic and deepened her understanding by synthesizing the information in those texts. Only then was she able to think critically about what she needed to do to move forward.

I asked Anna if she thinks kids do this naturally—read more than one text on a topic to answer their questions or deepen their understanding. She shrugged, unsure,

and then said, “I think some kids might be like, ‘I read this article and now I know what I’m talking about.’” When I asked Anna why she reads more than one text on a topic, she paused and then explained, “Well, I’m looking for different information, for more information I can add to my repertoire of what I already know. It’s like when I was making muffins the other day. I looked at one recipe and saw a pretty good list of ingredients, but then I looked at another and it said to add cinnamon on top of the muffins. *Cinnamon on top!* That’s the extra I’m looking for! Now I have an even better idea for making muffins.”

This is what we want for our students. We want them to ask questions and then actively seek out answers by locating and reading or viewing multiple sources—articles, books, videos, photographs, infographics. We want them to think across those sources and be able to articulate for themselves as well as for others what they learned—orally and in writing. We also want them to *act* on what they learned—whether it’s developing an app or making a better muffin or advocating for a particular issue or group.

Students are increasingly required to do this kind of thinking in school, as well. More and more, students are being asked to actively engage in thinking critically about multiple sources. This is a central focus in the *College, Career, and Civic Life (3C) Framework for Social Studies and Standards*, a guide released by the National Council for the Social Studies (2013, 6) to support states in developing new standards. The authors of this framework advocate strongly for teaching students to ask and answer their own questions and then seek out answers from multiple sources in order to be college, career, and civil life ready:

***Now more than ever, students need the intellectual power to recognize societal problems; ask good questions and develop robust investigations into them; consider possible solutions and consequences; separate evidence-based claims from parochial opinions; and communicate and act upon what they learn. And most importantly, they must possess the capability and commitment to repeat that process as long as necessary. Young people need strong tools for, and methods of, clear and disciplined thinking in order to traverse successfully the worlds of college, career, and civic life.***

Students are also being asked to analyze and synthesize information from multiple sources on standardized tests. The questions and performance tasks on these assessments are rigorous, requiring students to think about many different aspects of a set of sources. Third-grade students have been asked to write an essay comparing and contrasting details in two articles. Fourth-grade students have been asked to integrate information from two sources—a text and a video clip—to write a report on a topic. Eighth-grade students have been asked to compare information in three sources—a video clip with four distinct segments and two passages including one with a diagram as a major feature. The texts are written in a variety of structures, including narrative, cause-effect, and problem-solution, and they reveal authors' points of view or are written from various perspectives, including the author's, an omnipotent narrator's, and even a person or animal's perspective while experiencing a particular event. The texts come from a diverse group of resources, including magazines like *Ranger Rick*, Scholastic's *SuperScience*, and Scholastic's *Storyworks*; youth-oriented websites like [www.kidzworld.com](http://www.kidzworld.com); adult news sources like the *New York Times* and National Public Radio; and government websites like [www.nasa.gov](http://www.nasa.gov).

Like Anna, our students are also growing up with access to an endless amount of information—some of it fact and a lot of it opinion. Like many of the adults they know, the students receive “news” in short bites, skimming headlines or quickly reading synopses of an event. For many, their interpretation of what it means to be “informed” is skewed.

It is critical that we as educators teach students how to grapple with multiple sources on a topic or issue and that students have a chance to master doing this. A few years ago I realized that the instruction I offered students focused mainly on one source at a time and that I needed to make major changes in my practice. The students with whom my colleagues and I work need more opportunities to grapple with multiple sources on a topic or issue, and they need specific strategies for making sense of those sources. At first, I thought I knew what this would look like—I'd just use tricks of the trade like Venn diagrams and two-column notes. I'd start to talk more about what was “similar” and “different” between sources with students. I'd find cool sources to engage the students and we'd take off. But as I began to explore this further in real classrooms, I realized these tricks were primarily only good for a surface-level understanding of multiple sources. Nurturing a sense of being *informed* and *transformed* would require more instructionally.

With a group of colleagues—Nicole, Shannon, Micheline, Kelli, Meghan, Caleb, Kris, Martha, Karen, Chris, Anders, Emily, and Tara—and in my work with teachers across the country, I began to explore again. There were many lessons learned, and what has evolved is an approach to using multiple sources on a regular basis to teach. This book is about what we learned along the way.

## What Does Reading Across Sources Look Like in a Classroom?

In a third-grade classroom, the students are seated on the carpet ready to take notes as they consult a third source on a topic. They are watching a video clip describing the Great Pacific Garbage Patch. They see images of trash that has been collected from the Pacific Ocean—bottle caps, tires, rubber shoes. They listen to a scientist describe the swollen bellies of fish that have ingested bits of plastic from the debris. Some of the students are quietly thinking, “Nothing new here. We’ve already read two articles about this.” Then the narrator of the video states that the size of this floating field of garbage is twice the size of Texas. Suddenly, there’s an audible gasp in the room. One student’s hand flies up in the air. “Ms. Ballew! That deepens our knowledge!”

The students in that third-grade classroom were already familiar with the problem of ocean pollution because they had carefully consulted other sources on this topic. They’d analyzed a photograph of a loggerhead sea turtle being cared for at a sea turtle hospital and then closely read and annotated a related article about how many sea turtles munch on plastic debris. They had also read an informational text in the mandated anthology about how students pick up trash on California beaches once a year for Coastal Cleanup Day. So the students had some understanding of the problem—sea life is ingesting trash—and of one solution—humans are cleaning up the trash on beaches. Enough, right?

When I talked with the teacher, Nicole, about this later, she explained to me that despite engaging with these previous sources, the students still had no idea how big the problem of ocean pollution is until they watched the video and heard that fact comparing the size of the garbage patch to the size of Texas. With that simple comparison, their understanding of other details they’d read became clearer. Now statistics like “150 countries participate in Coastal Cleanup Day” and “112 million tons of debris is floating in garbage patches” in previous articles made more sense to these eight-year-olds. The images in the video of an endless amount of floating trash and the scientists’ description of the weeks it took to navigate this field of debris helped the students create a clearer

picture of the problem. More importantly, they realized that this problem is big and will not easily be solved by small groups of students picking up trash one day a year.

## What Happens for Students as They Examine Multiple Sources?

Let's take a moment to think about how this kind of learning unfolds. In the book *Trapped! A Whale's Rescue* (Burleigh 2015), the author narrates the entrapment and rescue of a humpback caught in fishing nets off the coast of California in 2005. The author begins the book by describing the grace and beauty of this creature as she moves through the water, seeking food. "The huge humpback whale dips and dives. Her sleek black sides shimmering, she spyhops, lobtails, flashes her flukes" (2). Then the whale encounters the fishing nets.

Take a moment to read the excerpt in Figure 1.1 a–b. As you read, consider this question: What happens when the whale becomes entangled in the fisherman's net?

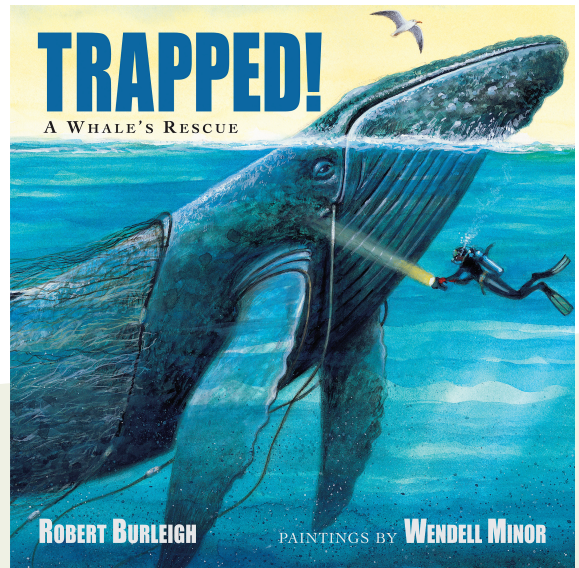


Figure 1.1 a–b Excerpt from *Trapped! A Whale's Rescue* (Burleigh 2015, 8–12)

But wait—danger haunts these waters.

Unseen nets, left by crab fishermen, drift through the dark sea.

The whale feels the tickle of thin threads. She plunges on. She tosses.  
She spirals sideways as spider lines tighten around her.

The struggle begins. The web of ropes cuts into her skin.

She flails, starts to sink, fights for air.

With each thrust of her tail, she tires.

Her sides heave. She flops. She flounders.

At last the great whale shudders and lies still.

**Figure 1.2 Excerpt  
from “Daring  
Rescue of Whale off  
Farallones” (SFGate,  
Fimrite 2005)**

About 20 crab-pot ropes, which are 240 feet long with weights every 60 feet, were wrapped around the animal. Rope was wrapped at least four times around the tail, the back and the left front flipper, and there was a line in the whale’s mouth. . . . At least 12 crab traps, weighing 90 pounds each, hung off the whale, the divers said. The combined weight was pulling the whale downward.

In this short excerpt, Burleigh conveys the force of the ropes with phrases like “lines tighten” and “web of ropes cuts into her skin” and the futile struggle of the whale with phrases like “starts to sink,” “tires,” and “flounders.” Burleigh’s choice of words gives us a better understanding of what happened when the whale got tangled in the net. We also have a sense of the serious nature of this problem.

Now let’s read an excerpt from an online news source, SFGate, about the same event in Figure 1.2. As you read, consider this question: How does this second source clarify your understanding of what happened to the whale?

In the first source, the excerpt from *Trapped! A Whale’s Rescue* (Burleigh 2015), we learned the whale was entangled in a “web of ropes.” In the second source, the news article, the author shares statistics or numerical facts about these ropes. There were a lot of ropes—“20.” Each rope was “240 feet long,” so the whale was trapped in thousands of feet of rope. The ropes were wrapped around the whale “at least four times.” Attached

to these ropes were “at least 12” crab traps that were heavy—“90 pounds each.” These details clarify how the whale was pulled down, which would prevent it from breathing through its blowhole and, as a result, endanger its life. No wonder the whale was struggling: it was truly trapped, destined to die. Thinking carefully about the details in this second source in this way has clarified our understanding of what happened.

Next, we might consult a third source—a photograph and caption from [www.worldwildlife.org](http://www.worldwildlife.org) that shows a diver attempting to free a sea turtle from a web of lines and nets so thick that it looks nearly like a mane of long, unruly hair. Only the turtle’s front flippers and head protrude from the tangle. The caption, titled “The Problem of Bycatch,” explains that billions of marine animals are accidentally caught and killed or mortally wounded each year. What can we add to the knowledge we developed by reading the first two sources?

After carefully thinking about each of these sources, we might want to know more. What can we do to help? Is there any hope? In another part of the [www.worldwildlife.org](http://www.worldwildlife.org) site, there is an additional text about the International Smart Gear Competition, a competition hosted by the World Wildlife Foundation that challenges scientists and those in the fishing industry to find “smarter” ways to fish—ways that reduce bycatch.

The details in this source reveal an effect of or a response to the problem introduced in the first three sources. This source also provides new information to add to the knowledge we built when we looked carefully at the first three sources—there are groups trying to solve this problem.

What might happen for our students if they carefully thought about the information in these four sources? Chances are that their understanding of this topic would expand and deepen as they read each new source. How do they do this? They continually connect and clarify. As they read each new source, the students look for connections between the details in the different sources. How are the details similar? How are they different? How do they build on each other to help the reader form a fuller understanding of the topic? At the same time, the students are also clarifying their understanding. What confusions do they need to clear up? How does this all fit together? And what new questions do they have?

## How Can We Help Students Read Across Sources?

Over the last few years, I’ve worked with colleagues across the country to develop a process for helping students read across sources with increasing independence. The major takeaways, each described in brief below, are at the heart of this book.

### Establish Clear Purposes

Nonfiction texts can be dense with information. Students may become overwhelmed by so many details, or they may think they need to remember everything they have read or noticed in multiple sources. A purpose for reading stated as a question can make a huge difference. Notice how I provided you with a purpose for reading when I presented the first source—“What happens when the whale becomes entangled in the fisherman’s net?” This question probably helped you determine what to pay attention to as you read and reread the excerpt. Questions like “How does weather affect people’s lives?” and “After the American Revolution, how did political parties take



shape?” can create clarity for students as they determine what is important to note in multiple sources. Initially, it may be up to us to develop these questions. Questions we develop for students also serve as models for the kinds of questions they can ask on their own later.

Chapter 2 provides some guidance on developing questions. Later, in Chapter 5, there are suggestions for how to teach your students to generate their own questions.

## Develop Tight Sets of Sources

Have you ever asked students to compare two texts like a book and an article and received general responses like “They are both about Holocaust survivors” or “One author talked about friction and the other author talked about gravity”? It may be that there are too many details in these sources for students to hold on to cognitively and then also compare, contrast, and integrate—even with a clear guiding question. While there is a place for reading entire texts like the book *Trapped! A Whale’s Rescue* (Burleigh 2015) or for viewing entire videos, comparing short sources like two excerpts of text or a one-minute video clip and a diagram can be just as cognitively demanding and is also *manageable*.

Chapter 2 includes suggestions for locating and identifying sources that are feasible for students to think across and for developing sets of sources that support each other like the four sources about bycatch that we examined earlier. Providing sources for students helps them begin to understand what relevant, truthful sources should look like when they do research on their own. Chapter 5 describes mini-lessons that help students identify relevant sources independently and vet those sources for credibility.

## Teach Strategies

When we ask a question like “How is this source similar to or different from that one?” we are assessing what students understand. If they understand how two texts are the same or different, they may have an adequate response. If they do not, their response will be lacking. Questions like this do not teach students *how* to notice or recognize the similarities and differences in texts. A guiding question or purpose is a tool that students can use to examine the similarities and differences between two texts or to gather and integrate information from more than one source.

Chapter 3 includes nine lesson ideas that focus on teaching students about specific strategies or tools they can use for making sense of information in more than one source. These are designed to be adapted to your context for teaching. You can use

these right away or you can integrate them into a larger unit of study. Chapter 5 also describes a key tool for helping students organize their thinking as they think strategically across sources—the inquiry chart.

## Provide Support

As they tackle making sense of multiple sources, students need us to be present and ready to support them along the way. We may need to be think partners, ready to think aloud *for* and *with* students, letting students see and hear us make sense of a second and third source. They might be okay making sense of a video clip, but they might need us to step in and think aloud again when they confront a complex diagram. They may need us to use prompts during conferences that help them sustain a focus on the purpose for reading and help them use their notes from a first source to think about the information in a second source. They may need us to write *with* them in response to multiple sources, thinking aloud about how we reread our notes and then determined what to write.

Chapter 4 describes specific instructional moves we can use to move students forward in this endeavor. To be ready, we have to continually observe students, noticing what they are doing well and what they are struggling with and then stepping in to support at this point of need. In Chapter 5, there are examples of mini-lessons you can give when you notice particular obstacles to student learning.

## Foster Independent Learning

Our ultimate goal is for students to ask their own questions, locate their own sources, and then independently and productively engage with multiple sources. This might be an open inquiry on a topic of their choice or as part of a mandated curriculum. This may happen at multiple points during an integrated unit of study.

As mentioned earlier, Chapter 5 includes advice on how to gradually release responsibility to students for generating questions, locating helpful sources, and grappling with the content in these sources. Chapter 6 offers suggestions for assessment to inform our instruction as we move students toward independence and to evaluate the sum of students' learning.

## Teach with Multiple Sources Regularly

Traditionally, reading multiple informational texts on the same topic has been reserved for writing research reports, a big production that may occur only a few times a year.

Although doing major research projects is grand, reading multiple texts on the same topic a few times a year isn't enough practice for students to master the skills required to synthesize information from multiple sources. Students need *regular* opportunities to do this. This has been my biggest takeaway during my professional inquiry.

Chapter 7 describes how several of my colleagues who work in different school settings are integrating learning with multiple sources into their curriculum on a regular basis.

# Teaching: Lesson Ideas for Reading and Thinking Across Sources

# 3

We need a variety of sources so we get the whole story.

We need to understand all the points of view that could be related to the topic.

We need to gather as many facts as we can until we meaningfully understand.

It's important to see videos and pictures too—not just text—because we can hear and see emotion and their voice to really understand how they were feeling.

—FOURTH-GRADE STUDENTS

As part of a unit of study on the civil rights movement, these students tackled essential questions like “What were segregated schools like?” and “Why were segregated schools a violation of civil rights?” The students explored a variety of texts. They read and annotated excerpts from *Separate Is Never Equal: Sylvia Mendez & Her Family's Fight for Desegregation* (Tonatiuh 2014) and *Heroes for Civil Rights* (Adler 2008) and examined primary sources, including photos that revealed the difference between schools for colored students and schools for white students. They also listened to audio files of African American and Mexican American individuals recounting their experiences as young people attempting to integrate all-white schools.

The essential questions served as the purposes for reading and as a guide for determining what was important when taking notes. The teacher modeled what this looked like by thinking aloud in front of the students and modeled writing her own notes. Ultimately the students wrote essays from the perspective of a child or teenager who was part of this complex period in history.

As revealed in the comments that open this chapter, there is a lot of potential for learning when students read multiple texts. The possibilities expand, though, if our selection of those texts and instruction with those texts is focused and purposeful.

## How to Get Started

What follows are lesson ideas for helping students understand the information in two or more sources. First, Figure 3.1 provides a brief description of each lesson, the types of nonfiction texts that would work with each lesson, and when to use that lesson. A bit later in the chapter, detailed descriptions of each lesson are provided, including sample sources that you may be able to locate easily on the internet or at the library for an initial lesson, if appropriate for your students. Also notice that each lesson includes a purpose for reading stated as a question. In my experience, each of these lessons needs to be used multiple times with several pairs or sets of sources so students have a chance to master the strategies involved.

Ideally, these lessons would also be part of a content area or integrated unit of study. The more background knowledge students bring to a text, the better they will understand it. If they are engaged in content-area hands-on learning or inquiry on the same topic as the texts, comprehending those texts will be easier. If this is not an option, the following lesson ideas could also be developed into a short series of reading lessons outside a unit of study. Or these ideas may simply serve as seeds for developing other types of lessons. Use these ideas as a way to grow your own.

### Terminology

- ♦ **Source or text:** any material that can be examined carefully for the purposes of learning, including excerpts from books, photographs, maps, diagrams, and video or audio clips
- ♦ **Narrative text:** a type of nonfiction that recounts or tells the story of an event or experience

- ♦ **Informational or nonnarrative text:** a type of nonfiction with the primary goal of informing the reader about the natural or social world
- ♦ **Text features:** elements of a text that help a reader navigate a text (e.g., table of contents and headings) or that provide additional content to support or develop an idea in the text (e.g., photographs and captions, maps, diagrams)
- ♦ **Infographic:** a visual image like a diagram, chart, table, or graph that represents some sort of information or data
- ♦ **Primary sources:** raw materials or artifacts created during a specific time period (photographs, government documents, diary entries, etc.) or later in the form of eyewitnesses' or participants' accounts or reflections (memoirs, oral histories, etc.)

**Figure 3.1** The Lesson Ideas and When to Use Them

Lesson Idea	Strategy	Type of Source	Use This When . . .
<b>1. Realize the Value of Reading More Than One Source on a Topic</b>	Students ask the question, “What did we just add to our learning?” as they read each additional source.	Two to three sources (infographics, video clips, text excerpts) on a high-interest topic	Your students are new to thinking carefully about multiple sources on a topic, or they need to review what happens for learners when they consult multiple sources on a topic.
<b>2. Make Connections Between a Feature and a Short Text</b>	Students annotate side-by-side sources and draw arrows between connecting details.	Short nonnarrative or narrative text and feature (e.g., map, diagram, photo, caption)	Students need to learn how to closely examine the details in text features and how those details support the information in another source.
<b>3. Be THIEVES to Make Informed Predictions</b>	Students use the THIEVES mnemonic (adapted from Manz 2002).	Two texts with multiple features (e.g., title, subheadings, visuals) that can be previewed before reading	Students need to work on making predictions about what they will learn from a source based on what they have learned from previous sources.

*(continues)*

**Figure 3.1** The Lesson Ideas and When to Use Them (*continued*)

Lesson Idea	Strategy	Type of Source	Use This When . . .
<b>4. Use the Coding Method to Self-Monitor and Compare</b>	Students pause to ask questions about what they just read like “Is this new information?” or “Did I already read this in another source?” or “Do I understand this?” Then they “code” their thinking while annotating the source (adapted from Hoyt 2008).	Two or more sources on a topic	Students need a strategy to help them think about their thinking as they read or view multiple sources.
<b>5. Name the Types of Details to Compare</b>	Students compare information presented in multiple texts on the same topic by identifying the types of details authors use to describe or explain.	Two or more short nonnarrative texts (or excerpts) that describe something or explain how something works or occurs	Students need help recalling and comparing specific details they read in more than one source. This strategy can be particularly helpful when teaching students to read science texts.
<b>6. Sketch a Combination of Details to Integrate</b>	Students combine details from two or more texts on a topic to sketch a quick illustration.	Two or more short nonnarrative (often science-related) texts or excerpts that describe something or explain how something works or occurs	Students need help integrating details from more than one source.
<b>7. Use a Thematic or Main Idea Question as a Guide</b>	Students use a big question like “How was this person <i>innovative</i> ?”	Two or more sources (primary or secondary) that narrate or provide information about the experiences of individual figures or groups (including short video clips)	Students need help thinking about big ideas with supporting details that are revealed across sources.
<b>8. Examine Texts That Have Different Purposes</b>	Students identify authors’ differing purposes.	Two or more sources (text excerpts, video clips, infographics) on the same topic or issue but with different purposes (including primary sources)	Students need to develop a fuller picture of the topic.
<b>9. Compare the Texts’ Structures</b>	Students analyze texts’ structures.	Two or more texts on the same topic or issue, but with different structures	Students need support in navigating texts and owning the information in the texts.

## A Note About Reading Comprehension Standards

If you're required to meet particular reading comprehension standards, you're in luck. The lessons in this chapter are packed with skills that are common in standards. Are we teaching students to *compare and contrast details*? To *integrate details*? To *analyze* how *two or more authors* write about a particular topic? All of the above! Readers naturally use all these skills any time they think about two or more texts, and in these lessons students engage in these skills as well. For example, in Lesson Idea 2: Make Connections Between a Feature and a Short Text, readers compare information in a text with information in a text feature, and then they integrate information they learned from both.

## Suggestions for Efficient Text Introductions

All the lessons that follow involve introducing the text to students. Introducing non-fiction texts can take up a lot of valuable time, leaving less time for students to read and think strategically. At the same time, a good introduction is vital to supporting students' understanding when they go to read that text. Below are a few suggestions for introducing texts. You might implement two or more during a single introduction.

- ♦ Provide a one- to two-sentence gist statement about one or both sources. If appropriate, include information that answers these questions: What are these sources mostly about? How will the sources help the students understand the essential question better?
- ♦ Review the essential question(s) or purposes for reading relevant to these sources.
- ♦ Ask the students to briefly preview the sources and then make informed predictions.
- ♦ Teach a vocabulary word like *innovative*, *courageous*, or *perseverant* that is part of the essential question and that will be helpful in understanding the text. Try following these four quick steps when you introduce a new word:
  1. Before the lesson, write a kid-friendly definition on chart paper. During the lesson, state the definition and post it for all students to view. A kid-friendly definition of *innovative* is “tending to introduce something new or different, including a method or a way of doing something or an invention.”



2. Make a connection to your own life with a sentence like “I was innovative when . . .”
3. Ask partners to make connections to their lives, using the word in their explanation. If needed, provide a stem like “I was innovative when . . .”
4. Briefly connect the word to the text the students will be reading. You could say, “In these texts, you will be reading about scientists who are innovative. That means in some way these scientists have introduced something new or different.”

## Lesson Idea 1

# Realize the Value of Reading More Than One Source on a Topic

### TYPE OF SOURCE

Two to three sources (infographics, video clips, text excerpts) on a high-interest topic

### TIME

Two 40-minute lessons

### STRATEGY

Students ask the question, “What did we just add to our learning?” and begin to realize the value of analyzing more than one source on a topic.

1

### GETTING READY

- 1. Select sources:** Choose an appropriate high-interest topic and locate two or three related sources. The sources you read in Chapter 1 (listed below) are on a topic that might easily engage students.
  - *Trapped! A Whale’s Rescue* (Burleigh 2015)
  - SFGate article “Daring Rescue of Whale off Farallones” (Fimrite 2005)
  - Additional sources like a photograph of an entrapped sea turtle or information at [www.wildlife.org](http://www.wildlife.org) about the International Smart Gear Competition
- 2. Study the sources:**
  - Is there a short section in each text that is worth reading closely to compare details?
  - Does one text include a detail that the other did not? How does that detail add to the reader’s learning about the topic?
  - What question about the topic might you ask that would help the students see the similarities and differences in these sources? For example, for the whale texts, the question might be *What did you learn about the entrapment of sea creatures in fishing nets?*

- 3. Prepare materials:** Determine how students will view the sources. You might read a book aloud, give the students hard copies of excerpts or articles, and project photographs or video clips.

### BEGINNING THE LESSON

*Today we are going to think about why it is helpful to read more than one text or source on a topic. We are going to read or look closely at three, asking ourselves after each one, “What did we just add to our learning?”*

Introduce the first text. For *Trapped! A Whale’s Rescue*, you might say, *This book is a narrative about one whale who was caught in a fishing net off the coast of California in 2005. The whale became entrapped, which means she was caught and unable to escape on her own. While I’m reading this aloud, think about this question: What are you learning about the entrapment of sea creatures in fishing nets?*

Read the text aloud or ask students to read, and then discuss their responses before moving on to closely reading the excerpt from this text.

## Teaching with Source 1

Let's closely read an excerpt or section of this text and think about what we are learning about this topic. (Pause to give the students time to read the excerpt.) What are important words or phrases that we want to remember or that help us answer our question?

Model underlining a phrase and jotting your thinking in the margins of the text. With the excerpt from *Trapped!* in Figure 3.2, you might say, *When I saw the words "spider lines tighten around her," I realized that the lines are getting tighter, and they are not going to be easy to get out of. This helps me answer the question, "What did I learn about the sea creature's entrapment?" I'm going to underline this phrase and jot down what I'm thinking.*

Encourage the students to continue annotating the text with a partner or on their own. Lean in to partner conversations and prompt them to share their thinking.

**Figure 3.2** Excerpt from *Trapped! A Whale's Rescue* (Burleigh 2015, 8–12) with example of an annotation

But wait—danger haunts these waters.

Unseen nets, left by crab fishermen, drift through the dark sea.

The whale feels the tickle of thin threads. She plunges on. She tosses. She spirals sideways as spider lines tighten around her.

The struggle begins. The web of ropes cuts into her skin.

She flails, starts to sink, fights for air.

With each thrust of her tail, she tires.

Her sides heave. She flops. She flounders.

At last the great whale shudders and lies still.

The lines are getting tighter, which might make it harder to escape!

**SOURCE 1**

## Teaching with Source 2

Briefly introduce the second text. Ask the students to read the whole text before engaging in closely reading the excerpt. When they begin to closely read the excerpt of the second text or source, ask them to consider the question, “What are you adding to your learning?” Post this question for all students to see, and pose this question as you confer with individuals or small groups.

Also be prepared to think aloud again about what you might underline and write in the margins. For example, with the second source on the whale being trapped in Figure 3.3, you might say, *In this first sentence—“About 20 crab-pot ropes, which are 240 feet long with weights every 60 feet, were wrapped around the animal”—the author tells me how many ropes there were—20—and how long they were—240 feet. That is a lot of rope and they were heavy, too! I’m going to underline those details and jot my thinking in the margins. This adds to my learning about the whale’s entrapment, but it also really helps me better understand the gravity of this situation for the whale. What other details jump out at you and add to your learning?*

1

**Figure 3.3** Excerpt from “Daring Rescue of Whale off Farallones” (SFGate, Fimrite 2005) with example of an annotation

About **20 crab-pot ropes**, which are **240 feet long** with weights every 60 feet, were wrapped around the animal. Rope was wrapped at least four times around the tail, the back and the left front flipper, and there was a line in the whale’s mouth. . . . At least 12 crab traps, weighing 90 pounds each, hung off the whale, the divers said. The combined weight was pulling the whale downward.

Knowing how many and how long helps me picture in my mind how dangerous this was for the whale. That is a lot of rope to escape from!

**SOURCE 2**

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## Teaching with Additional Sources on This Topic

Implement a similar routine of briefly introducing sources and then asking students to consider the question, “What are you adding to your learning?” as they mark the texts or view or listen to other sources and jot their thinking. Be prepared to think aloud for the group or as you meet with individuals.

With the sources about trapped sea creatures, the third source might be a photograph of a sea turtle or other creature trapped in a net. For me, this broadens our understanding of the first two sources. If I thought aloud for students, I might say, *This source makes me realize that it’s not just whales in trouble. There are other sea creatures affected by fishing nets.* I might prompt the students to look closely at the photo, drawing conclusions about the turtle’s entrapment and about the young man’s intentions as he holds the knife to the net.

Provide time for the students to talk in small groups about the similarities and differences between the sources. Lean in to listen and confer. Close with questions like

- *Why was it important to read more than one source on this topic?*
- *How did you add to or change your understanding each time you read a new source?*

## Questions to Push Kids' Thinking

- *What information did you add to your learning when you read this other text?*
- *What does that make you think? How can you jot that in a few words in the margin of the text?*
- *What would you have missed learning from this text if you had only read the first text?*
- If applicable, you might refer back to the essential question posed for students to consider as they read and ask, *How does this help you answer our question?*

## Finding the Right Sources

- When looking for hot topics, you might search on news sites like [www.usatoday.com](http://www.usatoday.com). Once you find an article, search on the internet for additional sources on that topic.
- You might think about hot topics related to sports or high-profile figures. Given the recent national anthem protests by NFL teams, students might find engaging a lesson comparing the details in articles about these protests to those about protests by athletes in the more distant past.
- Keep in mind the creator or developer of the sources you choose and their purpose. Sometimes “hot topic” websites like BuzzFeed are meant more for entertainment than for learning facts and as a result are not as reliable. In later lessons, you can explore this issue further. For this lesson, though, you can help students consider sources by casually posing questions during the lesson to initiate students’ awareness like “What do you think the author’s purpose was in writing this text?”