

# Two or One— Integrating Science and ELA



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Time is the scarce resource of the classroom. Every minute—every second—counts. So I'm guessing that if you could eke out two minutes' worth of learning from one minute of instruction, you would jump at the chance. The good news is you can!

## Two Ideas Undergird This Possibility.

**Idea One:** The brain does not have regions that specialize in different disciplines. No area is active during science class and inactive during English. Or, vice versa. Yet, we often teach as if it were. During English you probably aren't overly concerned with science learning. During science, you probably don't focus deeply on reading or writing skills. Yet, the cognitive processes in these—and other—disciplines are very much the same. We just talk about them differently.

**Idea Two:** Science is a language-based endeavor. Scientists read journals. They write articles. They collaborate to do research by speaking and listening to one another. They make presentations and listen to others do the same. Within the course of a single day, a scientist may be involved in all these areas of language usage. The same is true for science learning. In this way, science is intimately connected to English language arts, and English language arts experiences could readily involve science.

Linking these two disciplines is how you can eke out two minutes' worth of learning from one minute of instruction. And every part of *HMH Into Science* is designed to help you do exactly that. Here are the particulars.

## Student Activity Guides

The Activity Guides, made up of Hands-on Activities and Explorations, have a unique format. Part information text, part hands-on activity, part workbook, the Guides provide

opportunities for learners to develop and practice all facets of English language arts.

**Writing:** Every lesson begins with an intriguing image plus prompts and sentence starters that lead students to record what they observe and wonder about right there on the page. These guided writing opportunities are analogous to conventional ELA assignments that lead students to create a written response to what they've read. But at the same time, they lead students to hone science skills like observation and analysis.

You know better than most that the best way to improve at writing is to write. In this regard, the workbook format of the Student Activity Guide is a great ally and an effective way to involve all students in the process. With this approach, instead of you guiding a discussion about a hands-on activity (one in which only a small handful of students typically participate), the Activity Guides provide support and opportunities for all students to write about their ideas...a powerful use of class time by any measure.

**Speaking and Listening:** The Activity Guides feature many prompts that lead individuals and small groups to discuss ideas, present approaches to others, and analyze communication among themselves. Woven throughout the Teacher Guide lesson plans are suggestions for students in pairs and small groups to analyze, plan, critique, carry out, and present their work.

**Reading:** Hands-on Activities begin with a paragraph of background information. Explorations consist of one or more paragraphs of explanatory text. In both cases, the prose is highly accessible, readable, and coherent. Written in a style that makes readers feel someone is talking directly to them, the text explores ideas in comprehensible chunks.

## FUNomenal Readers

As their name suggests, FUNomenal Readers are leveled, stand-alone reading experiences that explore the lesson's anchoring phenomenon. Above, On, and Below level readers are the result of careful Lexile leveling and a commitment to maintain the same content across levels so students at all levels can participate in Reader-based class discussions and explorations.

## Reading

While the topical focus of each Reader is science, the treatment of the topics spans ELA-recognized genre, from nonfiction to biography, narrative nonfiction, fact-based realistic fiction, and in some cases, fact-based fantasy. The one consistent aspect of the selections is the writing quality, which would merit class time in any ELA program.

Anchor Charts, referenced in the Teacher Guide and available online, provide added support for using knowledge of genre and text structure as aids to comprehension. These supports fit right into ELA instruction and are ideal for use during that time.

The inside front cover of each Reader contains a three-part, Read-to-Learn strategy widely accepted among reading specialists and probably familiar to you. First, students are guided to preview the text and look for words that may be unfamiliar. Then, they are asked to skim, looking at the images and making predictions about the selection. Finally, students are prompted to read for a purpose—in this case, the purpose is the main science idea of the selection. This tried-and-true, three-read strategy leads students deeper and deeper into the text to develop authentic comprehension, as it would with any ELA reading selection.

## Writing

To promote students' personalized learning pathways, the inside back cover of the Readers contains four Science Stretch activities. The first three offer opportunities for students to respond to ideas in the reading in writing. Some prompts ask for simple or straightforward responses, such as creating a list; others ask for more elaborate responses, such as writing a diary entry. All provide a means for students to become more effective communicators through various types of writing and to foster student choice.

## Speaking and Listening

A fourth Science Stretch activity prompts students to connect with one another through conversation. Whether it's sharing ideas about how people in a selection worked together to solve a problem, or suggestions for offering feedback, or for sharing ideas about surprises in the selection, students are speaking, listening, and responding to one another.... all in the service of developing English language skills through science content.

When it comes to science and English language arts, time doesn't have to be a zero-sum game in which minutes spent doing one thing mean minutes not spent doing something else. Bringing *HMH Into Science* into your ELA lessons, doubles the learning potential for each minute of instruction. And isn't that an effective use of our scarcest of resources?

