# Knowledge Building with a Model Lesson

*Why build knowledge with model lessons?*
Lessons that exemplify high-quality literacy instruction are anchored in complex grade-level text. A high-leverage, evidence-based strategy to support students in accessing complex text is to anchor that text in a conceptually coherent set of resources that build needed knowledge and vocabulary. This work is particularly critical for students not yet reading at grade level.

*What is included in a knowledge-building model lesson?*
Each knowledge-building model lesson includes a close-reading model lesson paired with a short set of knowledge-building resources and tasks. Educators can engage in knowledge building with any close-reading lesson, so long as this lesson is centered on a complex grade-level text and series of text-specific oral and/or written tasks.

The knowledge-building resources follow similar guidance for more extensive text sets, but on a much smaller scale. The selection of resources follow a quad text set model developed by Comprehensive Reading Solutions and based on the article by Sarah Lupo and colleagues, "Building Background Knowledge Through Reading: Rethinking Text Sets." In a quad text set model, three to five texts are selected that help students develop knowledge critical to the complex text at the center of the close-reading lesson. Each of these supplemental texts is paired with a lightweight text-dependent task to support students' comprehension and knowledge-building work.

*How might a teacher use a knowledge-building model lesson?*
Educators can use the knowledge-building resources in the order indicated in the "Quad Text Set with Text-Dependent Tasks" table to help build knowledge and vocabulary when engaging with a close-reading model lesson. Implementing these knowledge-building texts and tasks can be done in a variety of ways; they are lightweight enough to be done either during short portions of class or as homework. For example:

- If completed as homework, the partner portion of each task can be completed in class.
- If the whole class (or majority of students) has little to no knowledge of the topic under study, the text set could be used in whole-class instruction.
- If there are just a few students who have little to no knowledge of the topic of study, the text set could be used in small groups with teacher guidance.

This list is not meant to be exhaustive. Educators should use their judgement about student needs to determine how best to use the resources.

**Building Knowledge with a Close-Reading Lesson**
**"The Making of a Scientist"**

This set of resources is designed to build knowledge in support of the close-reading lesson on "The Making of a Scientist" by Richard Feynman©, available on achievethecore.org.

## I. Anchor Text

The Making of a Scientist
Lexile: 1160L
Grade: 6

## II. Knowledge and Language Demands

- The language demands of the text are moderately challenging; there is a significant amount of academic language in the text (e.g., emit, tendency, magnitude, slightest, mites, inertia, consequences, principle). The text contains context clues for many (though not all) of these terms.
- The knowledge demands of this text are low; the text assumes practical knowledge of childhood, family relationships, and is consistent with the genre of narrative texts.

## III. Quad Text Set with Text-Dependent Tasks

The table below details the knowledge-building resources to use in support of the close-reading lesson: what text to use, in what order to use it, details about the text, and a text-dependent task to support knowledge building. The resources are listed below in their suggested order for use. Task directions have been written in student-facing language and teacher notes added in italics when necessary. Links to full task descriptions have been provided when possible.

| Title | Resource Type | Lexile Level | Summary | Task |
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| "Richard Feynman" | Website | 1010L–1200L | This personal website about Richard Feynman provides an overview of his work. | Modified Quick Write<br>With a partner, read the biography on the homepage of the website.<br><br>With your partner, click to the other pages of the website titled "About: Quotes" and "Notable Works."<br><br>Consider what you have just read. For two minutes, |

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| | | | | work on your own to write down everything you think is a key idea or important to know from the website.<br><br>Work with your partner to share your quick writes.<br><br>Together, write a summary statement in 15 words or fewer that summarizes what you learned from Feynman's site. |
| "Richard Feynman: Feynman's Father and Inertia" | Video (2:06) | n/a | These short interviews with Richard Feynman describe how his father "taught" him about the world. | Text-Dependent Question in a Small-Group Discussion<br>View the video. As you view the video, consider:<br>1. What can you infer about Feynman's relationship with his father?<br>2. What did you notice about how Feynman's father explained scientific ideas?<br><br>Jot down responses.<br><br>When you are done, form groups of three.<br><br>Discuss each question by sharing your evidence and thoughts about the interview. |
| "Richard P. Feynman: Quotes on Physics" | Webpage | n/a | This compilation of quotes from Feynman's work in physics provides insight into the way he expressed his love of science. | Skim the quotes. Select one.<br><br>Summarize the message of the quote.<br><br>Answer the following question:<br>How does Feynman express his interest in science through the selected quote?<br><br>Share your quote and thinking with a partner. |
| "The Making of a Scientist" | Anchor Text | 1160L | This literary informational text describes what Feynman's father taught | See the text and sequence of tasks provided in the close-reading model lesson here. |

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| | | | him about learning and understanding. | |
| **Knowledge Building After the Anchor Text** | | | | |
| "The Feynman Technique: The Best Way to Learn Anything" | Blog Post | 810L–1000L | This post describes Richard Feynman's technique for understanding anything he studied. | After reading this blog post and "The Making of a Scientist," describe how this technique connects to the way Feynman's father taught him about learning and understanding.<br><br>Share your thoughts with a partner. Be prepared to participate in a whole-class discussion. |