



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Overview



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In this module, students engage in reading, writing, listening, and speaking to build knowledge of simple machines and how they impact force, effort, and work. Students begin by reading some basic informational text. They then read out loud and perform a short Readers Theater (written for classroom use) about simple machines in order to continue building background knowledge about simple machines while also learning the structural elements of drama and practicing reading fluently. In Unit 2, students examine an extended science text, *Simple Machines: Forces in Action* (870L), which gives them a chance to examine the structure and text features, as well as analyze concepts in scientific writing. Several sections of this science text will be structured as close reading experiences. Students also will write routinely to explain how various simple machines work. They then will develop deeper expertise by working in small groups to read more

about specific simple machines (inclined plane, levers, pulleys, etc.) as well as reading and conducting a series of science experiments using simple machines. They will synthesize their findings from the experiments by writing scientific conclusion statements. To appreciate just how prevalent simple machines are in daily life, students will conduct a simple machine “inventory” at home and school. In Unit 3, students will continue to learn about simple machines, and will write letters to people they know suggesting the most useful simple machine for a specific daily task, using key vocabulary and providing evidence to support their opinions about the value of simple machines. **This performance task centers on NYSP12 ELA CCLS RI.4.1, RI.4.3, W.4.1, W.4.4, W.4.5, W.4.7, W.4.9, and L.4.3.**

Guiding Questions and Big Ideas

- **How do simple machines impact our lives?**
- **How do readers and writers form and support opinions?**
- *Simple machines impact force, effort, and work.*



Performance Task

Students will write an editorial about which simple machine they think benefits people's lives the most. They will use the following prompt to guide their writing: "A local engineering magazine wants to educate its readers on the importance of simple machines in the age of high-tech gadgets. So they've decided to hold a 'Campaign for Simple Machines.' Because of your expertise on this topic, you have been asked to write an editorial describing what simple machines are and stating your opinion on which one helps people the most in their daily lives. Editorials will be featured in this month's magazine." Students will support their opinions with evidence from their research. They will conclude their editorial with a summary of their opinion. **This performance task centers on NYSP12 ELA CCLS RI.4.1, RI.4.3, W.4.1, W.4.4, W.4.5, W.4.7, W.4.9, and L.4.3.**

Content Connections

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

Science Learning Standard 4: The Physical Setting

- Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Key Idea 5

- Energy and matter interact through forces that result in changes in motion.

Performance Indicator 5.1

- Describe the effects of common forces (pushes and pulls) of objects, such as those caused by gravity, magnetism, and mechanical forces.



CCS Standards: Reading—Literature	Long-Term Learning Targets
<ul style="list-style-type: none"> • RL.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. 	<ul style="list-style-type: none"> • I can explain what a text says using specific details from the text.
<ul style="list-style-type: none"> • RL.4.5. Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text. 	<ul style="list-style-type: none"> • I can use literary terms to describe parts of a drama. • I can describe the differences in structure of drama.
CCS Standards: Reading—Informational Text	Long-Term Learning Targets
<ul style="list-style-type: none"> • RI.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. 	<ul style="list-style-type: none"> • I can explain what a text says using specific details from the text. • I can make inferences using specific details from the text.
<ul style="list-style-type: none"> • RI.4.2. Determine the main idea of a text and explain how it is supported by key details; summarize the text. 	<ul style="list-style-type: none"> • I can determine the main idea using specific details from the text.
<ul style="list-style-type: none"> • RI.4.3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. 	<ul style="list-style-type: none"> • I can explain the main points in a historical, scientific, or technical text, using specific details in the text.
<ul style="list-style-type: none"> • RI.4.4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area. 	<ul style="list-style-type: none"> • I can determine the meaning of academic words or phrases in an informational text. • I can determine the meaning of content words or phrases in an informational text.
<ul style="list-style-type: none"> • RI.4.5. Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text. 	<ul style="list-style-type: none"> • I can describe the organizational structure in informational text (chronology).



CCS Standards: Reading—Foundational Skills	Long-Term Learning Targets
<ul style="list-style-type: none"> RF.4.3. Know and apply grade-level phonics and word analysis skills in decoding words. <ul style="list-style-type: none"> a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context. 	<ul style="list-style-type: none"> I can use a variety of strategies to read words.
<ul style="list-style-type: none"> RF.4.4. Read with sufficient accuracy and fluency to support comprehension. <ul style="list-style-type: none"> a. Read grade-level text with purpose and understanding. b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. 	<ul style="list-style-type: none"> I can read fourth-grade-level texts accurately and fluently to make meaning. <ul style="list-style-type: none"> a. I can read fourth-grade-level texts with fluency.
CCS Standards: Writing	Long-Term Learning Targets
<ul style="list-style-type: none"> W.4.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. <ul style="list-style-type: none"> a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. b. Provide reasons that are supported by facts and details. c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition). d. Provide a concluding statement or section related to the opinion presented. 	<ul style="list-style-type: none"> I can write an opinion piece that supports a point of view with reasons and information. <ul style="list-style-type: none"> a. I can introduce the topic of my opinion piece. a. I can create an organizational structure in which I group together related ideas. b. I can identify reasons that support my opinion. c. I can use linking words to connect my opinion and reasons. d. I can construct a concluding statement or section for my opinion piece.
<ul style="list-style-type: none"> W.4.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. 	<ul style="list-style-type: none"> I can produce writing that is appropriate to task, purpose, and audience.



CCS Standards: Writing (continued)	Long-Term Learning Targets
<ul style="list-style-type: none">• W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a topic.	<ul style="list-style-type: none">• I can conduct a research project to become knowledgeable about a topic.
<ul style="list-style-type: none">• W.4.8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.	<ul style="list-style-type: none">• I can recall information that is important to a topic.• I can document what I learn about a topic by taking notes.• I can sort my notes into categories.• I can provide a list of sources I used to gather information.
<ul style="list-style-type: none">• W.4.9. Draw evidence from literary or informational texts to support analysis, reflection, and research.<ul style="list-style-type: none">a. Apply grade 4 Reading standards to literature (e.g., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character’s thoughts, words, or actions]”).b. Apply grade 4 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text”).	<ul style="list-style-type: none">• I can choose evidence from informational texts to support analysis, reflection, and research.
<ul style="list-style-type: none">• W.4.10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	<ul style="list-style-type: none">• I can write for a variety of reasons.



CCS Standards: Speaking & Listening	Long-Term Learning Targets
<ul style="list-style-type: none">• SL.4.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.<ul style="list-style-type: none">a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.b. Follow agreed-upon rules for discussions and carry out assigned roles.c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.	<ul style="list-style-type: none">• I can effectively engage in discussions with diverse partners about fourth-grade topics and texts.<ul style="list-style-type: none">a. I can prepare myself to participate in discussions.a. I can draw on information to explore ideas in the discussion.b. I can follow our class norms when I participate in a conversation.c. I can ask questions that are on the topic being discussed.c. I can answer questions about the topic being discussed.c. I can connect my questions and responses to what others say.d. After a discussion, I can explain what I understand about the topic being discussed.
CCS Standards: Language	Long-Term Learning Targets
<ul style="list-style-type: none">• L.4.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.<ul style="list-style-type: none">a. Choose words and phrases to convey ideas precisely.*	<ul style="list-style-type: none">• I can express ideas using carefully chosen words.



CCS Standards: Language (continued)	Long-Term Learning Targets
<ul style="list-style-type: none"> L.4.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies. <ul style="list-style-type: none"> a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. 	<ul style="list-style-type: none"> I can use a variety of strategies to determine the meaning of words and phrases. <ul style="list-style-type: none"> a. I can use context to help me to determine what a word or phrase means. b. I can use common affixes and roots as clues to help me determine what a word means (e.g., telegraph, photograph, autograph). c. I can use resource materials (glossaries, dictionaries, thesauruses) to help me determine the pronunciation and meaning of key words and phrases.
<ul style="list-style-type: none"> L.4.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation). 	<ul style="list-style-type: none"> I can accurately use fourth-grade academic vocabulary to express my ideas.

Central Texts
<ol style="list-style-type: none"> Buffy Silverman, <i>Simple Machines: Forces in Action</i>, Do It Yourself series (New York: Heinemann, 2009); ISBN: 978-1-4329-2317-4. Pamela Marx, <i>Take a Quick Bow!</i> (Culver City, CA: Good Year Books, 1997); ISBN: 978-1-59647-083-5 (NOTE: Only one copy required for teacher, then reproduced for students. The book explicitly states, “Only portions of this book intended for classroom use may be reproduced without permission in writing from the publisher.”)



Week	Instructional Focus	Long-Term Targets	Assessments
Unit 1: Building Background Knowledge about Simple Machines through Informational Text and Literature			
Week 1	<ul style="list-style-type: none"> • Concept sort • Close Read: <i>Simple Machines</i>, pages 4–5 • Begin Science journal, including vocabulary 	<ul style="list-style-type: none"> • I can explain what a text says using specific details from the text. (RI.4.1) • I can determine the main idea using specific details from the text. (RI.4.2) • I can explain the main points in a scientific text, using specific details in the text. (RI.4.3) • I can determine the meaning of academic words or phrases in an informational text. (RI.4.4) • I can determine the meaning of content words or phrases in an informational text. (RI.4.4) • I can explain how an author uses reasons and evidence to support particular points in a text. (RI.4.8) • I can write for a variety of reasons. (W.4.10) • I can effectively engage in discussions with diverse partners about fourth-grade topics and texts. (SL.4.1) 	<ul style="list-style-type: none"> • Mid-Unit 1 Assessment: Finding the Main Idea of a Scientific Text (RI.4.2, RI.4.3)



Week	Instructional Focus	Long-Term Targets	Assessments
Week 1 (continued)	<ul style="list-style-type: none"> Readers Theater 	<ul style="list-style-type: none"> I can explain what a text says using specific details from the text. (RL.4.1) I can use literary terms to describe parts of drama. (RL.4.5) I can describe the differences in structure of drama and prose. (RL.4.5) I can use a variety of strategies to determine the meaning of words and phrases. (L.4.4) 	<ul style="list-style-type: none"> End of Unit 1 Assessment: Reading and Answering Questions about Readers Theater (RL.4.1, RL.4.5, L.4.4)
Unit 2: Scientific Research: Researching Simple Machines: How They Help do Work			
Weeks 2–4	<ul style="list-style-type: none"> Science Talk research notebook Lesson Cycles: Read, experiment, write, discuss Vocabulary Work: Quiz-Trade 	<ul style="list-style-type: none"> I can explain the main points in a scientific text, using specific details in the text (RI.4.3) I can determine the meaning of academic words or phrases in an informational text. (RI.4.4) I can determine the meaning of content words or phrases in an informational text. (RI.4.4) I can choose evidence from informational texts to support analysis, reflection, and research. (W.4.9) 	<ul style="list-style-type: none"> Mid-Unit 2 Assessment: Reading and Answering Question about Screws (RI.4.3, RI.4.4, W.4.9)



Week	Instructional Focus	Long-Term Targets	Assessments
Weeks 2–4 (continued)	<ul style="list-style-type: none"> Lesson Cycles: Read, experiment, write, discuss Expert visits Vocabulary Quiz-Trade Science Talk 	<ul style="list-style-type: none"> I can explain the main points in a scientific text, using specific details in the text. (RI.4.3) I can determine the meaning of academic words or phrases in an informational text. (RI.4.4) I can determine the meaning of content words or phrases in an informational text. (RI.4.4) I can describe the organizational structure in informational or persuasive text (chronology). (RI.4.5) I can write informative/explanatory texts that convey ideas and information clearly. (W.4.2) I can choose evidence from informational texts to support analysis, reflection, and research. (W.4.9) 	<ul style="list-style-type: none"> End of Unit 2 Assessment, Part I: Reading and Answering Question about Wedges (RI.4.3, RI.4.4, W.4.9) End of Unit 2 Assessment, Part II: Reading and Answering Questions about Experiments (RI.4.3, RI.4.5, W.4.2)



Week	Instructional Focus	Long-Term Targets	Assessments
Unit 3: Sharing Opinions: The Best Simple Machine for a Job			
Weeks 4–7	<ul style="list-style-type: none">• Choose a simple machine• Examine mentor texts (editorials)	<ul style="list-style-type: none">• I can describe the organizational structure in informational or persuasive text (chronology). (RI.4.5)• I can explain how an author uses reasons and evidence to support particular points in a text. (RI.4.8)	<ul style="list-style-type: none">• Mid-Unit 3 Assessment: Reading and Answering Questions about Editorials (RI.4.5, RI.4.8)



Week	Instructional Focus	Long-Term Targets	Assessments
Weeks 4–7 (continued)	<ul style="list-style-type: none"> • Explicitly teach opinion writing • Using reasons to support opinion • Write an editorial 	<ul style="list-style-type: none"> • I can describe the organizational structure in informational or persuasive text (chronology). (RI.4.5) • I can explain how an author uses reasons and evidence to support particular points in a text. (RI.4.8) • I can write an opinion piece that supports a point of view with reasons and information. (W.4.1) • I can produce writing that is appropriate to task, purpose, and audience. (W.4.4) • I can conduct a research project to become knowledgeable about a topic. (W.4.7) • I can choose evidence from literary or informational texts to support analysis, reflection, and research. (W.4.9) • I can effectively engage in discussions with diverse partners about fourth-grade topics and texts. (SL.4.1) • I can use grammar conventions to send a clear message to a reader or listener. (L.4.1) • I can use conventions to send a clear message to my reader. (L.4.2) • I can express ideas using carefully chosen words. (L.4.3) 	<ul style="list-style-type: none"> • End of Unit 3 Assessment (RI.4.5, RI.4.8, W.4.1, W.4.4) • Read opinion piece and name supporting reasons and on-demand opinion writing • Performance Task: Opinion Writing: An Editorial on Simple Machines (RI.4.1, RI.4.3, W.4.1, W.4.4, W.4.7, L.4.1, L.4.2, L.4.3)