



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
• 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.	• I can explain what a text says using specific details from the text.
• 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.	• 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
• 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.	• I can explain what a text says using specific details from the text. • I can make inferences using specific details from the text.
• RI.4.2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.	• I can determine the main idea using specific details from the text.
• 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.	• I can explain the main points in a historical, scientific, or technical text, using specific details in the text.
• 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.	• 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.
• 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.	• I can describe the organizational structure in informational text (chronology).



CCS Standards: Reading—Foundational Skills	Long-Term Learning Targets
- RF.4.3. Know and apply grade-level phonics and word analysis skills in decoding words. 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.	I can use a variety of strategies to read words.
- RF.4.4. Read with sufficient accuracy and fluency to support comprehension. 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.	- I can read fourth-grade-level texts accurately and fluently to make meaning. a. I can read fourth-grade-level texts with fluency.
CCS Standards: Writing	Long-Term Learning Targets
- W.4.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. 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.	- I can write an opinion piece that supports a point of view with reasons and information. 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.
W.4.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.	I can produce writing that is appropriate to task, purpose, and audience.



CCS Standards: Writing (continued)	Long-Term Learning Targets
W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a topic.	I can conduct a research project to become knowledgeable about a topic.
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.	- 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.
- W.4.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. 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”).	I can choose evidence from informational texts to support analysis, reflection, and research.
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.	I can write for a variety of reasons.



CCS Standards: Speaking & Listening	Long-Term Learning Targets
• 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. 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.	• I can effectively engage in discussions with diverse partners about fourth-grade topics and texts. 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
• L.4.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Choose words and phrases to convey ideas precisely.*	• I can express ideas using carefully chosen words.



CCS Standards: Language (continued)	Long-Term Learning Targets
- 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. 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.	- I can use a variety of strategies to determine the meaning of words and phrases. 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.
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).	I can accurately use fourth-grade academic vocabulary to express my ideas.

Central Texts
- 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	• Concept sort • Close Read: <i>Simple Machines</i>, pages 4–5 • Begin Science journal, including vocabulary	• 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)	• 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)	Readers Theater	- 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)	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	- Science Talk research notebook - Lesson Cycles: Read, experiment, write, discuss - Vocabulary Work: Quiz-Trade	- 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)	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)	- Lesson Cycles: Read, experiment, write, discuss - Expert visits - Vocabulary Quiz-Trade - Science Talk	- 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)	- 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	• Choose a simple machine • Examine mentor texts (editorials)	• 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)	• 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)	• Explicitly teach opinion writing • Using reasons to support opinion • Write an editorial	• 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)	• 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)



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Grade 4: Module 3A: Assessment Overview



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Final Performance Task	Opinion Writing: An Editorial on Simple Machines After reading biographical texts on a famous American athlete of a historical era, students write a letter to a publishing company explaining the need for a biography (written at a level appropriate for fifth-graders) about that athlete. In the letter, students will discuss the athlete, evaluate the barriers that s/he broke during the era in which s/he lived, and give an opinion about the importance of that athlete's impact on American society. Students will support their opinion with reasons and evidence from their research. This task centers on NYSP12 ELA CCLS RI.4.9, W.4.1, W.4.5, W.4.7, W.4.8, W.4.9, L.4.1, L.4.2, and L.4.3.
Mid-Unit 1 Assessment	Finding the Main Idea of a Scientific Text This assessment centers on NYSP12 ELA CCLS RI.4.2 and RI.4.3. In this assessment, students read a new text about simple machines and their everyday uses. They use a graphic organizer to take notes from the text in order to identify the main idea and supporting details. After reading and taking notes, students answer a series of multiple-choice and short-answer questions that assess their ability to identify the main idea and a supporting detail as well as identify main points of the scientific text using explicit details from the text. Although students write a paragraph, this is not designed as a formal writing assessment.
End of Unit 1 Assessment	Reading and Answering Questions about Readers Theater This assessment centers on NYSP12 ELA CCLS RL.4.5, RL.4.1, and L.4.4. In this assessment, students read a new Readers Theater about simple machines and answer questions about the text structure and characteristics. They then complete short-answer questions to explain what the text is about and multiple-choice questions asking them to infer the meaning of vocabulary and support their answer with evidence from the text.



Mid-Unit 2 Assessment	Answering Questions about Screws This assessment centers on NYSP12 ELA CCLS RI.4.2, and RI.4.3. In this assessment, students read a new text about the screw and answer a series of multiple-choice and short-answer questions that assess their ability to identify main points of the scientific text using explicit details from the text.
End of Unit 2 Assessment	Reading and Answering Question about Wedges (Part I); and Reading and Answering Questions about Experiments (Part II) This two-part assessment centers on NYSP12 ELA CCLS RI.4.3, RI.4.1, as well as RI.4.5, W.4.2, and W.4.9. During Part I, students will read about a new simple machine, wedges, from pages 12 and 13 of <i>Simple Machines: Forces in Action</i> . They will take notes using a graphic organizer and then answer text-dependent multiple-choice and short-answer questions. In Part II, students will read an experiment, answer text-dependent questions, then conduct the experiment and write about what they observed and conclude about wedges' impact on work from the experiment.
Mid-Unit 3 Assessment	Reading and Answering Questions about Editorials This assessment centers on NYSP12 ELA CCLS RI.4.5 and RI.4.8. During this assessment, students will read and answer questions about an on-demand opinion piece—an editorial. They will then answer text-dependent multiple-choice and short-answer questions.
End of Unit 3 Assessment	Planning and Drafting an Editorial (Part I); and Revising to Create a Polished Editorial (Part II) This two-part assessment centers on NYSP12 ELA CCLS RI.4.5, RI.4.8, W.4.1, and W.4.4. During Part I, will read and answer questions about an editorial. They will answer text-dependent multiple-choice and short-answer questions. In Part II, students will write an on-demand opinion piece. They will state an opinion and group ideas and reasons together to support their opinion.



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Grade 4: Module 3A: Performance Task



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Summary of Task

- Students will synthesize their learning by stating an opinion about simple machines in an editorial. They will explain what simple machines are and then form an opinion about which simple machine benefits people the most in their everyday lives. The editorial will be submitted to a fictitious engineering magazine. The students will produce multiple drafts and participate in several structured peer critiques as they work toward a final polished editorial. **This 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.4.3a.**
- If there is capacity to support high-quality illustrations (e.g., technical drawings, paintings, prints), the editorials may include technical drawings of simple machines and editorial layout as well. The “publication” of the editorials could be celebrated with an event that brings outside community members into the classroom, for which students will both describe their opinions and reflect on their learning for this public audience.

Format

Editorial (on a 8½" x 11" sheet of paper)

(Optional: Consider mocking up the writing as an actual magazine article)

Standards Assessed through This Task

- 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.
- 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.
- W.4.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- W.4.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
- W.4.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
- W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.
- W.4.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.
- L.4.3a Choose words and phrases to convey ideas precisely.



Student-Friendly Writing Invitation/Task Description

- A local engineering magazine wants to educate its readers about 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.

Key Criteria for Success (Aligned with NYSP12 ELA CCLS)

Below are key criteria students need to address when completing this task. Specific lessons during the module build in opportunities for students to understand the criteria, offer additional criteria, and work with their teacher to construct a rubric on which their work will be critiqued and formally assessed.

- Clear topic
- Clear organizational structure that groups related ideas
- Scientifically accurate reasons that support opinion
- Scientifically accurate vocabulary
- Linking opinion and reasons using words and phrases
- Concluding statement
- Peer critique



Options for Students

- Students will create their editorial based on their research during Units 1 and 2.
 - * Design a technically accurate drawing of their simple machine being used with labels and captions.
 - * Students could survey school personnel and community members to see what simple machines they use the most. This data could be included in their editorial as additional support for their opinion.
 - * As a technology extension, students may type their editorial.

Options for Teachers

- The class could create a magazine about simple machines and their benefits to people along with advertisements for products containing simple machines. This could be given to the school library as a resource for other students.
- If during the research, students find that particular tools/simple machine(s) are needed in their school (e.g., dollies, wheels for large trashcans, wheelchair ramps, doorstops), they could present their findings and suggestions to the school board.

Resources and Links

- Simple Machines with Bill Nye the Science Guy YouTube video (5:45), available at <http://www.youtube.com/watch?v=grWIC9VsFY4> (last accessed 12/23/12)
- EdHeads: Activate Your Mind Simple Machines games, available at <http://edheads.org/activity/simplemachines> (last accessed 12/23/12)
- Franklin Institute Resources for Science Learning Simple Machines, available at <http://sln.fi.edu/qa97/spotlight3/spotlight3.html> (last accessed 12/23/12)
- MIKIDS Simple Machines, available at www.mikids.com/Smachines.htm (last accessed 12/23/12)



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Grade 4: Module 3A: Unit 1: Overview



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Unit 1: Building Background Knowledge about Simple Machines through Informational Text and Literature

In Unit 1, students are asked to infer the topic of their research for this module by sorting various pictures of simple machines and their everyday use. Students start by sorting these “Mystery Pictures” into inferred categories, then read an informational text from the book *Simple Machines* to learn basic information about simple machines. Once students discover the topic, they build background knowledge by rereading the text from *Simple Machines* and determine the main idea and supporting details, as well as the main points related to the scientific concepts of force, effort, and work explained in the text. This is followed by a mid-unit assessment of RI4.2 and RI4.3.

Students then read and analyze Readers Theater *The Machine*, which engages students as they continue to build content knowledge about simple machines, and also introduces students to a new genre (drama). They will examine the structure of drama and learn how drama is different from other types of literature (RL.4.5). The end of unit assessment focuses on standards RL.4.5 and RL4.1: Students read a new Readers Theater about simple machines and answer questions about the characteristics of this type of drama as well as information about simple machines contained within the text. Overall, this unit prepares students for their deeper study in Unit 2 about simple machines and the work they do to help people.

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.*



Mid-Unit 1 Assessment	Finding the Main Idea of a Scientific Text This assessment centers on standards NYSP12 ELA CCLS RI.4.2 and RI.4.3. In this assessment, students read a new text about simple machines and their everyday uses. They use a graphic organizer to take notes from the text in order to identify the main idea and supporting details. After reading and taking notes, students answer a series of multiple-choice and short-answer questions that assess their ability to identify the main idea and a supporting detail as well as identifying main points of the scientific text using explicit details. Although students write a paragraph, this is not designed as a formal writing assessment.
End of Unit 1 Assessment	Reading and Answering Questions about Readers Theater This assessment centers on standards NYSP12 ELA CCLS RL.4.1, RL.4.5, and L.4.4. In this assessment, students read a new Readers Theater about simple machines and answer questions about the text structure and characteristics. They then complete short-answer questions to explain the text and multiple-choice questions asking them to infer the meaning of the vocabulary and support their answer with evidence from the text.

Content Connections
This module is designed to address English Language Arts standards. However, the module intentionally incorporates Science content that many teachers may be teaching during other parts of the day. These intentional connections are described below. Big ideas and guiding questions are informed by the New York State Common Core K–8 Social Studies Framework: http://engageny.org/sites/default/files/resource/attachments/ss-framework-k-8.pdf NYS Social Studies Core Curriculum • 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.



Central Texts

1. Buffy Silverman, *Simple Machines: Forces in Action*, Do It Yourself series (New York: Heinemann, 2009); ISBN: 978-1-4329-2317-4.
2. Pamela Marx, *Take a Quick Bow!* (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.”)



This unit is approximately 1 week or 6 sessions of instruction.

Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 1	Using Mystery Pictures and Text to Discover the Topic (Simple Machines)	- I can explain what a text says using specific details from the text. (RI.4.1) - I can make inferences using specific details from the text. (RI.4.1) - 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 find the meanings of unfamiliar words to help me better understand a scientific text. - I can categorize pictures based on details from the text.	Simple Machines Science journal (page 2, Vocabulary)	- Reading and Writing Like a Scientist - Vocabulary Strategies
Lesson 2	Reading and Writing about Simple Machines	- I can explain the main points in a historical, scientific, or technical text, using specific details in the text. (RI.4.3) - I can determine the main idea using specific details from the text. (RI.4.2) - I can document what I learn about a topic by taking notes. (W.4.8)	- I can determine the main idea of a scientific text. - I can write a paragraph describing what simple machines do using details from the text.	Simple Machines Science journal (page 4, Building Background Knowledge)	Guiding Question
Lesson 3	Mid-Unit Assessment and Introduction to Science Talks	- I can effectively engage in discussions with diverse partners about fourth-grade topics and texts. (SL.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 historical, scientific, or technical text, using specific details in the text. (RI.4.3)	- I can determine the main idea of a scientific text. - I can explain how simple machines help people do work using details from the text. - I can effectively participate in a Science Talk about simple machines. I can prepare for the Science Talk by gathering evidence from scientific texts about simple machines.	- Mid-Unit 1 Assessment: Finding the Main Idea of a Scientific Text - Simple Machine Science journals (page 9)	- Science Talk Norms - Participating in a Science Talk - Science Talk protocol



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 4	Learning from Literature: Simple Machines Readers Theater	• I can use literary terms to describe parts of a story, poem, or drama (e.g., verse, rhythm, meter, casts of characters, settings, descriptions, dialogue, stage directions). (RL.4.5) • I can describe the differences in structure of poems, drama, and prose. (RL.4.5) • I can explain what a text says using specific details from the text. (RL.4.1) • I can read fourth-grade-level texts with fluency. (RF.4.4) • I can express my own ideas clearly during discussions. (SL.4.1) • I can follow our class norms when I participate in a conversation. (SL.4.1)	• I can share my opinion on a topic and respect the opinions of others. • I can identify the characteristics of Readers Theater through examining the text <i>The Machine</i>. • I can explain how drama is different from other types of fiction.	• Exit ticket	• Exploring Opinions as Readers and Writers • Readers Theater
Lesson 5	Learning from Literature Continued: Examining Text Structure, Vocabulary, and Information about Simple Machines in the Readers Theater <i>The Machine</i>	• I can explain how authors use evidence and reasons to support their points in informational texts. (RI.5.8) • I can summarize or paraphrase information in my notes and in finished work. (W.5.8) • I can create an organizational structure in which I group together related ideas. (W.5.1) • I can write an opinion piece that supports a point of view with reasons and information. (W.5.1)	• I can identify the characteristics of Readers Theater through examining the text <i>The Machine</i>. • I can share my opinion on a topic and respect the opinions of others. • I can determine the meaning and pronunciation of challenging words. • I can explain what the text says about simple machines using details from the text.	• Annotated text (<i>The Machine</i>)	• Readers Theater • Vocabulary Strategies



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 6	Assessing Readers Theater and Performing <i>The Machine</i>	• I can use literary terms to describe parts of a story or drama. (RL.4.5) • I can describe the differences in structure of drama and prose. (RL.4.5) • I can explain what a text says using specific details from the text. (RL.4.1) • I can use a variety of strategies to determine the meaning of words and phrases. (L.4.4) • Addressed but not assessed: • I can read fourth-grade-level texts with fluency. (RF.4.4)	• I can identify the characteristics of Readers Theater in a text. • I can explain what the text says about simple machines using details from the text. • I can read my Readers Theater line fluently and at an appropriate volume.	• End of Unit 1 Assessment: Reading and Answering Questions about Readers Theater	• Readers Theater • Back-to-Back and Face-to-Face protocol



Optional: Experts, Fieldwork, and Service

Experts:

- Invite a drama teacher to explain the genre of drama and how it is similar and different from other types of fiction. They could also provide support for students to practice their articulation and fluent reading of text.

Fieldwork:

- Take a tour of your school to try to identify everyday uses of simple machines. Have students visit a stage, theater, or playhouse and practice their Readers Theater in this authentic setting.

Optional: Extensions

- Invite an audience from outside the classroom for students to perform their Readers Theater.



Science Journals

- This unit introduces a Science journal used throughout the lessons. Students will work in this journal during most lessons. Prepare it in advance. In order to prepare, look for the actual Science journal pages in Unit 1, Lesson 1, supporting materials. The journal is actually used for the first time during Unit 1, Lesson 2.

Anchor Charts

- Vocabulary Strategies (Lesson 1), Reading and Writing Like a Scientist (Lesson 1), Guiding Questions (Lesson 2), Science Talk protocol (Lesson 3), Science Talk Norms (Lesson 3), Participating in a Science Talk (Lesson 3), Exploring Opinions as Readers and Writers (Lesson 4), Readers Theater (Lesson 4).

Graphic Organizers

- Most graphic organizers are included in the Science journal; see Lesson 1.
- Graphic Organizer for Finding the Main Idea about *Simple Machines* (Lesson 3).



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Unit 1:

Recommended Texts



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Unit 1 focuses on simple machines and how those machines help people. The list below includes texts with a range of Lexile text measures on this topic. This provides appropriate independent reading for each student to help build content knowledge.

It is imperative that students read a high volume of texts at their reading level to continue to build the academic vocabulary and fluency demanded by the CCLS.

Common Core Band Level Text Difficulty Ranges:

(As provided in the NYSED Passage Selection Guidelines for Assessing CCSS ELA)

- Grades 2–3: 420–820L
- Grades 4–5: 740–1010L
- Grades 6–8: 925–1185L

Where possible, texts in languages other than English are also provided. Texts are categorized into three Lexile ranges that correspond to Common Core Bands: below-grade band, within band, and above-grade band. Note, however, that Lexile® measures are just one indicator of text complexity, and teachers must use their professional judgment and consider qualitative factors as well. For more information, see Appendix 1 of the Common Core State Standards.

Title	Author and Illustrator	Text Type	Lexile Measure
Lexile text measures below-grade band level (below 740L)			
<i>What Is a Plane?</i>	Lloyd G. Douglas (author)	Informational	230
<i>What Is a Lever?</i>	Lloyd G. Douglas (author)	Informational	230
<i>What Is a Wedge?</i>	Lloyd G. Douglas (author)	Informational	280
<i>What Is a Pulley?</i>	Lloyd G. Douglas (author)	Informational	300
<i>What Is a Screw?</i>	Lloyd G. Douglas (author)	Informational	310
<i>Push and Pull</i>	Patricia J. Murphy (author)	Informational	480
<i>Inclined Planes and Wedges</i>	Sally M. Walker and Roseann Feldmann (authors), Andy King (photographer)	Informational	520

*Lexile based on a conversion from Accelerated Reading level;

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Title	Author and Illustrator	Text Type	Lexile Measure
Lexile text measures below-grade band level (below 740L)			
<i>Simple Machines</i>	Deborah Hodge (author), Ray Boudreau (illustrator)	Informational	580
<i>Lance Dragon Defends His Castle with Simple Machines</i>	Eric Braun (author), Anthony Briglia (illustrator)	Informational	475*
<i>Machines We Use</i>	Sally Hewitt	Informational	640
<i>Tires, Spokes, and Sprockets: A Book about Wheels and Axles</i>	Michael Dahl (author) Denise Shea (illustrator)	Informational	660
<i>Screws to the Rescue</i>	Sharon Thales	Informational	660
<i>Wedges to the Rescue</i>	Sharon Thales	Informational	660
<i>Levers to the Rescue</i>	Sharon Thales	Informational	660
<i>Cut, Chop, and Stop: A Book about Wedges</i>	Michael Dahl (author) Denise Shea (illustrator)	Informational	670
<i>Simple Machines</i>	Vijaya Khisty Bodach (author)	Informational	680
<i>Inclined Planes to the Rescue</i>	Sharon Thales	Informational	690
<i>Wheels and Axles to the Rescue</i>	Sharon Thales	Informational	690
<i>Ramps and Wedges</i>	David Glover (author)	Informational	700
<i>Pulleys to the Rescue</i>	Sharon Thales	Informational	710
<i>Levers and Pulleys: Lift Anything!</i>	Emily Sohn and Frederick Fellows (authors)	Informational	720
<i>Powerful Machines: Discover Science through Facts and Fun</i>	Gerry Bailey (author)	Informational	730



Title	Author and Illustrator	Text Type	Lexile Measure
Lexile text measures below-grade band level (below 740L)			
<i>Roll, Slope, and Slide: A Book about Ramps</i>	Michael Dahl (author), Denise Shea (illustrator)	Informational	No Lexile
Lexile text measures within band level (740-1010L)			
<i>Scoop, Seesaw, and Raise: A Book about Levers</i>	Michael Dahl (author) Denise Shea (illustrator)	Informational	740
<i>How Do You Lift a Lion?</i>	Robert E. Wells (author/illustrator)	Informational	750
<i>Wedges in Action</i>	Gillian Gosman (author)	Informational	770*
<i>Science Experiments with Simple Machines</i>	Sally Nankivell-Aston and Dorothy Jackson (authors)	Informational	770
<i>Simple Machines</i>	Dana Meachen Rau (author)	Informational	780
<i>Pull, Lift, and Lower: A Book about Pulleys</i>	Michael Dahl (author) Denise Shea (illustrator)	Informational	780
<i>Simple Machines</i>	Ade Deane-Pratt (author)	Informational	820*
<i>How to Catapult a Castle: Machines That Brought Down the Battlement</i>	James de Winter (author)	Informational	820
<i>Explore Simple Machines!</i>	Anita Yasuda (author)	Informational	830
<i>Simple Machines: Discover Science through Facts and Fun</i>	Steve Way and Gerry Bailey (authors)	Informational	840
<i>Forces and Simple Machines</i>	Jon Richards (author)	Informational	875*
<i>How Things Work Encyclopedia</i>	DK Publishing	Informational	960*
<i>Force and Simple Machines</i>	Jon Richards (author)	Informational	No Lexile



Title	Author And Illustrator	Text Type	Lexile Measure
Lexile text measures above-grade band level (over 1010L)			
<i>Simple Machines Made Simple</i>	Ralph St. Andre (author)	Informational	No Lexile
<i>Sir Isaac Newton: Brilliant Mathematician and Scientist</i>	Natalie M. Rosinsky (author)	Informational	1080
<i>Force and Motion</i>	Peter Lafferty (author)	Informational	1110
<i>The New Way Things Work</i>	David Macaulay (author)	Informational	1180
<i>Machines and Work (Science Fair Projects)</i>	Patricia Whitehouse (author)	Informational	No Lexile



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Unit 1: Lesson 1

Using Mystery Pictures and Text to Discover the Topic (Simple Machines)



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Using Mystery Pictures and Text to Discover the Topic (Simple Machines)

Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

I can explain what a text says using specific details from the text. (RI.4.1)
I can make inferences using specific details from the text. (RI.4.1)
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)

Supporting Learning Targets

- I can find the meanings of unfamiliar words to help me better understand a scientific text.
- I can categorize pictures based on details from the text.

Ongoing Assessment

- Simple Machines Science journal (pages 2-6, Vocabulary)



Using Mystery Pictures and Text to Discover the Topic (Simple Machines)

Agenda	Teaching Notes
1. Opening A. Engaging the Reader: Mystery Pictures (15 minutes) B. Reviewing Learning Targets (5 minutes) 2. Work Time A. First Read: Getting the Gist about <i>Simple Machines</i> (15 minutes) B. Rereading: A Closer Look at Words (15 minutes) 3. Closing and Assessment A. Revisiting the Concept Sort: Identifying the Six Simple Machines (10 minutes) 4. Homework A. None	<i>Note: In this module, students focus their reading and writing on the topic of simple machines. For the past two modules, students have been learning to read and write through social studies topics (the Iroquois and colonial America). To help students shift their focus to reading and writing about science, consider reminding students that readers and writers of informational text focus on many topics and disciplines, including both history and science.</i> • In the opening of this lesson, students work in small groups to sort “mystery” pictures. For this activity to fully engage students, do NOT tell them the topic of the module in advance. Keep simple machines a mystery. • If students discover the simple machines topic early in this lesson, it’s fine—they likely won’t know how to categorize all the pictures by the types of simple machines, which is the bulk of both Work Time A and B. Reading the text will help them refine their knowledge. • Students discuss what it means to read and write like scientists and begin a Reading and Writing Like a Scientist anchor chart, which will develop throughout the module. • After the topic of simple machines is revealed, remind students that while the focus of their reading, research, and writing is now a science topic, they will still learn the skills and strategies used by readers and writers. • During this module, students read and take notes on a variety of texts, learn new domain and academic vocabulary, conduct science experiments, and participate in several Science Talks. These experiences require different note-catchers and graphic organizers. Consider copying these documents and stapling them into a Simple Machines Science journal (packet) so all documents are held together and less likely to be lost. See supporting materials. This Science journal is used for the first time during Lesson 2. • Students can keep their Science journal in their research folders (from Module 2). Help students learn the organizational strategy of keeping all notes, writing drafts, texts, etc. on a topic in one folder—or designate an alternate system. • Begin to prepare for Independent Reading, which is launched in Lesson 2. See teaching note at the end of this lesson for details. • In advance: Post or create a new version of the Vocabulary Strategies anchor chart (created in Module 2, Unit 1, Lesson 3). • Post: Learning targets. • Record and post the Directions for Determining the Meaning of Simple Machine Words on the board or on chart paper for use with students in Work Time B. See supporting materials.



Using Mystery Pictures and Text to Discover the Topic (Simple Machines)

Lesson Vocabulary	Materials
scientist, scientific text, simple machines, work, force, effort	• Reading and Writing Like a Scientist anchor chart • Mystery pictures (one set each for a group of three to four) • Document camera • <i>Simple Machines: Forces in Action</i> (book; one per student plus one for teacher use) • Simple Machines Science journal (1 stapled packet per student; prepare for use in Lesson 2) • Equity sticks (created in Module 2, Unit 1, Lesson 3) • Vocabulary Strategies anchor chart (created in Module 2, Unit 1 Lesson 3; see supporting materials if chart must be recreated) • Directions for Determining the Meaning of Simple Machine Words (for teacher reference)



Opening	Meeting Students' Needs
A. Engaging the Reader: Mystery Pictures (15 minutes) <i>Note: Do not yet reveal the topic of these pictures or how they should be sorted.</i> • Post chart paper and record the title at the top of a new anchor chart: Reading and Writing Like a Scientist anchor chart. Tell students today and for the next several weeks they'll learn to read and write like scientists. Ask students to turn to a partner and talk about what it means to "read and write like a scientist." Have students share their thinking. • Tell students the root for <i>scientist</i> comes from Latin and means "to know." Explain that good scientists have a lot in common with good readers, and record the following on the anchor chart: – Ask questions – Seek more information – Base thinking or conclusions on evidence • Elaborate on each bullet point to clarify with students. (For example, you might explain that readers base their inferences on evidence from the text and scientists do the same when reading about or observing their topics.) Tell students starting today they'll get to do all of these things as they discover the topic they will read and write about as scientists for the next several weeks. • Display the mystery pictures using a document camera or enlarge pictures and post on the board. Do not reveal the topic of the pictures. • Explain to students that they will be working in groups to examine and discuss these pictures. Remind them of the class expectation for working in a small group. For example: All will participate and share their thinking; be respectful of other's ideas; etc. • Place students in groups of three or four. Distribute the mystery pictures to each group. Ask students to examine the pictures with their group and discuss the following question: * "What do you notice about these pictures?" • Give students 3 minutes to examine and discuss.	• Asking students to justify their thinking by citing evidence in pictures helps them to take these same steps when reading a text.



Opening (continued)	Meeting Students' Needs
• Ask students to sort pictures into groups based on details they see. Reassure students there is no right or wrong answer; the purpose is to explain why they sorted the pictures the way they did. Give students 3 more minutes. Students may sort pictures by shape (wheels and pulleys together or levers and inclined planes together) or function (doorknob and bottle cap together—turn to open). • Circulate among groups to determine how students categorize their pictures. Prompt them to explain their sorting using explicit details from the pictures. For example, a group might report: “We grouped the seesaw with the slide because they are both on a playground.” After groups have sorted, ask them to explain how they sorted their pictures. • Next, ask students to discuss with their group the following question: * “What do all these pictures have in common?” • Allow groups 3 minutes to discuss, then have each group share their thoughts. Push students to provide evidence for their thinking from the pictures. For example, you might ask: “What detail in these pictures caused you to group time into the same category?” • Have students stack pictures in a pile. Consider paper-clipping stacks or using plastic baggies to store pictures between sorting.	



Opening (continued)	Meeting Students' Needs
B. Reviewing Learning Targets (5 minutes) • Tell students that they'll read something to help them solve the mystery of what the pictures have in common. Explain that you would like them to use the following learning targets: "I can find the meanings of unfamiliar words to help me better understand a scientific text," and "I can infer about pictures using details from the text." • For the first target, have students turn to a partner and share: * "When have you figured out the meaning of an unfamiliar word? How did it help you better understand a text?" • Have partners share their thinking. Underline the words <i>scientific text</i> and explain that this means the text will explain something in scientific terms. • For the second learning target, explain that they have already sorted the mystery pictures once, but they'll do it again once they've read the text and have more information. Ask students to think about the target and discuss with their groups: * "How will your second sorting be different based on this learning target?" • Ask groups to share their thinking and explain that in their second sorting, they will have to use evidence from the text to justify their categories. If necessary, give students the synonym for the word <i>categories</i> by writing the word <i>groups</i> above it on the learning target. Clarify that categories are groups based on similar characteristics or features.	• To further support ELLs and other students with vocabulary needs, consider giving concrete examples to clarify the meaning of academic vocabulary. For example, with the word <i>categories</i>, you could give students the example of sorting blocks into categories by their color, shape, or size.
Work Time	Meeting Students' Needs
A. First Read: Getting the Gist about Simple Machines (15 minutes) • Distribute the text <i>Simple Machines: Forces in Action</i> to each student. Explain that this is the text they will use to read like scientists. Before you begin reading, remind students as with any first read of a complex text, they are likely to notice many words they don't know. Explain it is a good idea to read for the gist; what is the text about? • Ask students to follow along with you as you read pages 4 to 5. After reading, ask groups to discuss what they think this text is about. Call on a member from each group to share the group's thinking. Probe so students cite evidence to support their thinking. For example, if a student says, "This is about simple machines," ask: "What did the text say about simple machines?"	



Work Time (continued)	Meeting Students' Needs
B. Rereading: A Closer Look at Words (15 minutes) • Have students pair up for reading. Distribute the Simple Machines Science journal. Explain that this journal will be used throughout the next few weeks as they research simple machines. Tell students the first thing they'll do is record important vocabulary from this text. Point to pages 2 through 7 in the Science journal, titled "Simple Machines: Vocabulary." Explain that this is where the class will collect important words for understanding simple machines and other words that students might need to write like scientists. Remind students they have collected important words as readers and writers in the past when they used a vocabulary notebook when reading and writing about Colonial America (in Module 2). • Ask students to reread the text to see what they notice about the words. Have them discuss with their partner what they see that stands out. Have a few pairs share. They should notice many bolded words in the text. If not, point this out. Ask them to Think-Pair-Share by discussing why think these words are bolded with their partner. Cold call a few students using equity sticks. Students should recall that authors use bold type to indicate importance. Explain that in informational text bold type also indicates the meaning of a word is explained in the glossary. Revisit Vocabulary Strategies anchor chart. • The chart should contain something similar to the following: – Reading on in the text and inferring – Thinking about parts of the word that you know (like word roots) – Looking for a text feature that defines the word – Looking in the glossary – Looking in a dictionary – Discussing a word with another (after attempting some of the above strategies) • Explain that today students will focus on <i>Simple Machines</i> to determine the meaning of the following words: <i>simple machines, work, force, effort, and experiment</i>. • Review the Directions for Determining the Meaning of Simple Machine Words posted in advance of the lesson with students. Explain that students will be able to use the glossary to determine the meaning of most, but not all words.	• Help students prepare for cold-calling by informing them before they Think-Pair-Share. • For students who need further support, consider simplifying and typing the directions. • Also consider giving sentence starters for students to discuss their understanding of the words with their partners. For example, "To me this word means_____. I am still confused by this word because_____."



Work Time (continued)	Meeting Students' Needs
• Demonstrate the following: 1. Find the bolded word simple machines in the text. 2. Locate the glossary at the back of the text. 3. Locate the phrase “simple machines” and read the definition. 4. Find the phrase in the alphabetized list of vocabulary words in the Simple Machines Science journal on page 6, and record its definition (second column only—Definition). 5. Reread the paragraph containing the bolded word in the text. Think aloud about the meaning of the word and what, if anything, still confuses you. For example, you might say something such as: “Now I know that there are six types of simple machines and that they help people do work, but I am still unsure how each of them work.” • Give students 10 minutes to look up the remaining four words, record their definitions, and discuss their understanding and record their questions and visuals/notes. Circulate and support pairs as needed. Remind them that the words are listed alphabetically in the Vocabulary section of their Science Journal. • Cold call pairs to share their definitions and visuals/notes for remembering each word and what still confuses them. Reassure students that it is okay if they still have questions about these simple machine words, because they will continue to read about simple machines and discuss these words over the course of the module. <i>Note: Students <u>do not</u> complete the last two columns for the words they record in their journals (“This helps me know what this word means ...” and “Connections to Simple Machines”). They need to build more background knowledge about these words in future lessons before they can complete these categories.</i>	



Closing and Assessment	Meeting Students' Needs
A. Revisiting the Concept Sort: Identifying the Six Simple Machines (10 minutes) • Ask students to gather in their original groups and get out their mystery pictures. Ask groups to take 3 minutes to re-sort and to infer new categories based on their reading of <i>Simple Machines</i>. • Ask groups to share their newly inferred categories and to explain what details in the text support their thinking. Reveal that the intended categories are the six types of simple machines. Have groups modify their sorting if necessary, then distribute the answer key for groups to check their work. • Finally, ask groups to discuss the following question: * “How did reading this text change your thinking about the pictures?” • Have groups share out their thoughts.	
Homework	Meeting Students' Needs
• None. <i>Note: Each unit in this module is accompanied by an extensive list of Recommended Texts at a variety of reading levels. Students should use the classroom, school, or local library to obtain book(s) about the topics under study at their independent reading level. These books can be used in a variety of ways—as independent and partner reading in the classroom whenever time allows, as read-alouds by the teacher to entice students into new books, and as an ongoing homework expectation. During this unit, let students know you expect them to read at home from a related book at their independent reading level. In addition, students may be assigned additional work, such as rereading complex text or completing a writing task. For more information on independent reading, see also Launching Independent Reading in Grades 3-5: Sample Plan, which is a stand-alone document on EngageNY.org.</i>	• Students who cannot yet read independently at any level will benefit from hearing books read to them, either by a caregiver or through audio recordings. Hearing books/texts can be an ongoing assignment for these students. • In addition, www.novelnewyork.org has a free, searchable database of content-related texts that can be played as audio files on a home or library computer. Texts on this site can also be translated into many languages. Use the database to provide at-home reading of related texts to ELLs and their families in their native languages.



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Unit 1: Lesson 1

Supporting Materials



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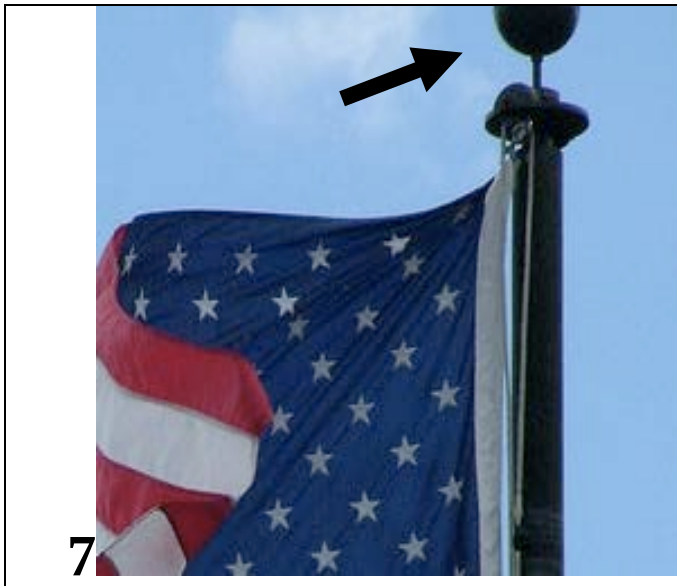


Mystery Pictures





Mystery Pictures





Mystery Pictures

9



10



11



12





Categories

Levers

Wedges

Pulleys

Wheels and Axles

Screws

Inclined Planes



Answer Key

1. seesaw = lever
2. teeth = wedge
3. sailboat = pulley
4. door knob = wheel and axle
5. bottle top = screw
6. toilet handle = lever
7. flagpole = pulley
8. bike wheel = wheel and axle
9. screw = screw
10. slide = inclined plane
11. on-ramp = inclined plane
12. door stop = wedge

Photo #1 Bakke, Peat. "Night Seesaw." 3 March 2008. Online Image. Flickr. <http://www.flickr.com/photos/mistermoss/2308968745/>.

Photo #2 Gennari, Claudio. "The Threat." 10 Jan 2009. Online Image. Flickr. <http://www.flickr.com/photos/claudiogennari/3187479048/>.

Photo #3 Leo-Seta. "Pulleys." Aug 1994. Online Image. Flickr. <http://www.flickr.com/photos/uncle-leo/3172970451/>.

Photo #4 Sattler, Gary, and Anna Sattler. "LockSet01-at-440." 13 July 2007. Online Image. Flickr. Source:
<http://www.flickr.com/photos/9512074@N02/815185256/>.

Photo #5 Holifield, Chris. "Yet Another Mutant Zucchini." 3 Jan 2005. Online Image. Flickr. <http://www.flickr.com/photos/dropdeadchris/2785904134/>.

Photo #6 Jordan, Brett. "Toilet Humour." 14 Oct 2007. Online Image. Flickr. <http://www.flickr.com/photos/x1brett/4481271046/>.

Photo #7 Joshua Davis Photography. "My America." 5 Aug 2004. Online Image. Flickr. <http://www.flickr.com/photos/articnomad/8643121/>.

Photo #8 Dodson, E. Used by permission.

Photo #9 Hudson, Paul. "Screw: Theme 2: Mundane Technology." 18 Feb 2012. Online Image. Flickr. <http://www.flickr.com/photos/pahudson/6897093529/>.

Photo #10 Brown, Elliott. "Piazza Antiche Mura, Sorrento – play ground – slide." 30 June 2012. Online Image. Flickr. <http://www.flickr.com/photos/ell-brown/7538200214/>.

Photo #11 Cozart, Justin. "Unfinished Ramp, Frisco TX." 29 June 2011. Online Image. Flickr. <http://www.flickr.com/photos/fatguyinalittlecoat/5773420857/>.

Photo #12 Murrell, Leigh A. "Untitled." 20 June 2011. Online Image. Flickr. <http://www.flickr.com/photos/echameagua/7236933840/in/photostream/>.

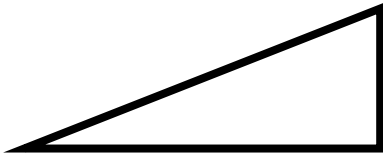


Simple Machines Science Journal

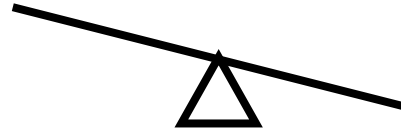
Name: _____

Date: _____

Inclined Plane



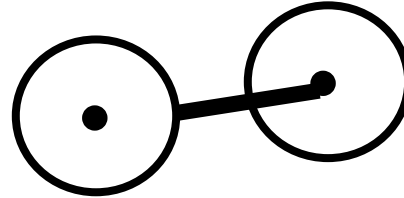
Lever



Wedge



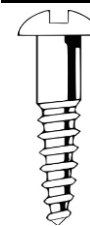
Wheel and Axle



Pulley



Screw



Simple Machines Science Journal
Vocabulary

Word/Phrase	Definition	This helps me know what this word means ...	Connections to <i>Simple Machines</i>
balance			
compound machine			
conclusion			
decrease			
distance			

Simple Machines Science Journal
Vocabulary

Word/Phrase	Definition	This helps me know what this word means ...	Connections to <i>Simple Machines</i>
effort			
experiment			
fixed pulley			
force			
friction			

Simple Machines Science Journal
Vocabulary

Word/Phrase	Definition	This helps me know what this word means ...	Connections to <i>Simple Machines</i>
fulcrum			
hypothesis			
inclined plane			
increase			
lever			

Simple Machines Science Journal
Vocabulary

Word/Phrase	Definition	This helps me know what this word means ...	Connections to <i>Simple Machines</i>
load			
moveable pulley			
observe			
pulley			
ramp			

Simple Machines Science Journal
Vocabulary

Word/Phrase	Definition	This helps me know what this word means ...	Connections to Simple Machines
resistance			
simple machine			
wheel and axle			
work			

Simple Machines Science Journal

Vocabulary

This section is intentionally blank. Use the table below to add any other words you think are important as you continue to learn more about simple machines

Word/Phrase	Definition	This helps me know what this word means ...	Connections to Simple Machines

Simple Machines Science Journal
Building Background Knowledge
What Are Simple Machines?

Text: Use the information on pages 4-5 of *Simple Machines* by Buffy Silverman, and fill in below.

Main Idea:	Supporting Detail	Why are simple machines important?
	Supporting Detail	
	Supporting Detail	

Reading and Writing Like a Scientist:

Explain what simple machines do. Use details from the text to support your explanation.

Question: How do simple machines impact our lives?

Preparation: Look back in your notes and texts about simple machines to find evidence to help you answer the Science Talk question.

When I read or saw this evidence ...	I think that simple machines impact our lives by ...
(Example) that part in <i>Simple Machines</i> that said pyramid workers used levers to help them pick up bricks	(Example) I think that levers help lift really heavy things.

My Science Talk notes: Ideas and Questions

My teacher's feedback:

My goals for the next Science Talk:

Simple Machines Science Journal
KWL Chart

I KNOW ...		I WANT to know ...	I LEARNED ...	
Information	Y/N		Information	Source

Hypothesis: What do you think is going to happen?

Materials: List the materials needed for this experiment.

• •	• •
---	---

Observations: As you conduct this experiment, what do you see happening?

Lifting bag straight up (*Hint: Step 8*):

Pulling bag on top of books (*Hint: Step 10*):

Conclusion: Describe what you learned about the inclined plane and how it works. Make sure to use scientific vocabulary in your conclusion.

1. Record important information about the inclined plane from the text.

What an inclined plane looks like:	Type of work it helps a person do:	Example of an inclined plane:

2. Diagram showing how this simple machine helps people. Make sure to label your diagram.

3. How does an inclined plane impact *work*?

Hypothesis: What do you think is going to happen?

Materials: List the materials needed for this experiment.

•	•	•	•
•	•	•	•

Observations: As you conduct this experiment, what do you see happening?

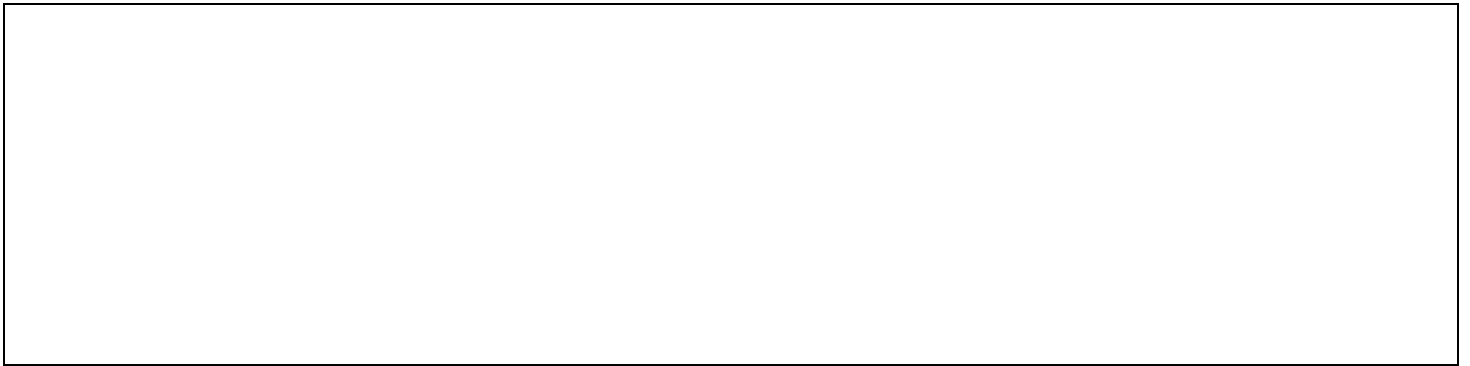
Six and four dimes:
Prediction for seven and three dimes:
Test seven and three dimes:
Eight and two dimes:
Nine dimes and one dime:

Conclusion: Describe what you learned about the lever and how it works. Make sure to use scientific vocabulary in your conclusion.

1. Record important information about the inclined plane from the text.

What a lever looks like:	Type of work it helps a person do:	Example of a lever:

2. Diagram showing how this simple machine helps people. Make sure to label your diagram.



3. How does a lever impact *work*?

Question: How do simple machines impact our lives?

Preparation: Look back in your notes and texts about simple machines to find evidence to help you answer the Science Talk question.

When I read or saw this evidence ...	I think that simple machines impact our lives by ...
(Example) that part in <i>Simple Machines</i> that said pyramid workers used levers to help them pick up bricks	(Example) I think that levers help lift really heavy things.

My Science Talk notes: Ideas and Questions
My teacher's feedback:
My goals for the next Science Talk:

1. Record important information about the inclined plane from the text.

What a pulley looks like:	Type of work it helps a person do:	Example of a pulley:

2. Diagram showing how this simple machine helps people. Make sure to label your diagram.

--

3. A single pulley **does** / **does not** [circle one] change the effort needed to lift a load. Explain your answer.

--

4. A double pulley **does** / **does not** [circle one] change the effort needed to lift a load. Explain your answer.

--

Simple Machines Science Journal
Wheel and Axle Research Notes

1. Record important information about the inclined plane from the text.

What a wheel and axle look like:	Type of work it helps a person do:	Example of a wheel and axle:

2. Diagram showing how this simple machine helps people. Make sure to label your diagram.

--

3. Describe how the wheel and axle is similar to the lever? Use scientific vocabulary in your explanation.

4. Explain why a screwdriver is an example of a wheel and axle.

5. How does a wheel and axle impact *work*? Make sure to use scientific vocabulary in your explanation. (Hint: make sure to use the word *friction* in your explanation.)

Simple Machines Science Journal

Pulley Experiment Notes

Hypothesis: What do you think is going to happen?

Materials: List the materials needed for this experiment.

• •	• •	• •
------------	------------	------------

Observations: As you conduct this experiment, what do you see happening?

Pick up the pail without a pulley. (<i>Hint: Step 3</i>):
Raising the pail with a single pulley. (<i>Hint: Step 5</i>):
Raising the pail with a double pulley. (<i>Hint: Step 9</i>):

Conclusion: Describe what you learned about the pulley and how it works. Make sure to use scientific vocabulary in your conclusion. (Hint: What's the difference between a single pulley and a double pulley on the effort it takes to lift a load?)

Hypothesis: What do you think is going to happen?

Materials: List the materials needed for this experiment.

Observations: As you conduct this experiment, what do you see happening?

- Length of rubber band attached to the wheeled object:

_____centimeters _____inches

- Length of rubber band as the wheeled object is pulled on its wheels:

_____centimeters _____inches

Describe the effort it took to move the object:_____

- Length of rubber band as the wheeled object is pulled on its side:

_____centimeters _____inches

Describe the effort it took to move the object:_____

Conclusion: Describe what you have learned about the wheel and axle and how it works. Make sure to use scientific vocabulary in your conclusion.

Simple Machines Science Journal
Preparing for a Science Talk
(Unit 2 Lesson 11)

Question: How do simple machines impact our lives?

Preparation: Look back in your notes and texts about simple machines to find evidence to help you answer the Science Talk question.

When I read or saw this evidence ...	I think that simple machines impact our lives by ...
(Example) that part in <i>Simple Machines</i> that said pyramid workers used levers to help them pick up bricks	(Example) I think that levers help lift really heavy things.

My Science Talk notes: Ideas and Questions

Reflect on the following learning target:

“I can effectively participate in a Science talk about simple machines.”



Vocabulary Strategies Anchor Chart

Directions for creating: Write the following underneath on chart paper to create this anchor chart.

Vocabulary Strategies

- * Reading on in the text and infer
- * Think about parts of the word that you know (like word roots)
- * Look in the glossary
- * Look for a text feature that defines the word
- * Look in a dictionary
- * Discuss a word with another (after attempting some of the above strategies)



Directions for Determining the Meaning of Simple Machine Words

Teacher directions: Write the following directions on the board or chart paper for students in advance of this lesson.

Directions: Using your glossary or another strategy, find the meaning of the following words: *simple machines*, *work*, *force*, *effort*, and *experiment*.

- 1) Determine the meaning of each word.
- 2) Find the word in your journal and write the definition (complete the second column only).
- 3) Reread the text with your partner.
- 4) Discuss the following questions: How has your understanding of these words changed? Which words are still confusing for you and why?



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Unit 1: Lesson 2

Reading and Writing about Simple Machines



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

I can explain the main points in a historical, scientific, or technical text, using specific details in the text. (RI. 4.3)
I can determine the main idea using specific details from the text. (RI.4.2)
I can document what I learn about a topic by taking notes. (W.4.8)

Supporting Learning Targets

- I can determine the main idea of a scientific text.
- I can write a paragraph describing what simple machines do using details from the text.

Ongoing Assessment

- Simple Machines Science journal (page 8, Building Background Knowledge)

Agenda

1. Opening
 - A. Engaging the Reader: Discussion of the Guiding Question (5 minutes)
 - B. Reviewing Learning Targets (5 minutes)
2. Work Time
 - A. Review and Identify Main Idea in a Scientific Text (10 minutes)
 - B. Partner Reading: Supporting Details (15 minutes)
 - C. Writing Like a Scientist (15 minutes)
3. Closing and Assessment
 - A. Browsing and Selecting Independent Reading Books (5 minutes)
 - B. Reflecting on Learning Targets (5 minutes)
4. Homework

Teaching Notes

- In advance: Have the directions for Partner Reading ready to share.
- Create the guiding question anchor chart with the question: “How do simple machines impact our lives?” on it, written large.
- Post: Learning targets.



Lesson Vocabulary	Materials
determine, main idea, scientist, scientific text, simple machines, work, force, effort	• Guiding Question anchor chart (new; teacher-created; see teaching notes) • Sticky notes (2-3 per student) • Equity sticks • <i>Simple Machines: Forces in Action</i> (book; one per student plus one for teacher use) • Science journal (one per student; from Lesson 1) • Document camera • Directions for Partner Reading (one per student) • Homework for <i>Simple Machines: Forces in Action</i>, pages 4–5 (one per student)

Opening	Meeting Students' Needs
A. Engaging the Reader: Discussion of the Guiding Question (5 minutes) • Remind students that for the next few weeks they will be reading and writing like scientists and learning all about simple machines. Direct students' attention to the Guiding Question anchor chart: "How do simple machines impact our lives?" • Ask students to think about their response and Write-Pair-Share on a sticky note. Use equity sticks to call on a few students to share out something their partner said. As they share their thinking, have them hand in their sticky note with the date next to their response. Tell students they will revisit this chart throughout the module, adding new thinking as their learning progresses.	• Consider coming up with a visual cue for the word <i>main idea</i> that you hold up each time you read this word. This will help your ELLs make connections to this word from previous learning.
B. Reviewing Learning Targets (5 minutes) • Invite students to read the learning target: "I can determine the main idea of a scientific text." • Underline the phrase <i>main idea</i>. Ask students to reflect with a partner on a time the class has discussed main idea. Students should recall identifying the main idea in the texts they read about the Iroquois earlier in the year (see Module 1, Unit 2, Lesson 2). Remind students that the main idea is the most important idea from the text. Circle the word <i>determine</i> and ask them to share with their group what they think the word means. Have groups share out and clarify that determine means: "to decide after thinking." Tell students they will decide, or determine, the main idea using details to support their decision.	



Work Time	Meeting Students' Needs
A. Review and Identify Main Idea in a Scientific Text (10 minutes) • Distribute the text <i>Simple Machines</i> and the Simple Machines Science journal to each student. • Inform the students today they'll reread the same pages they read during Lesson 1 (pages 4–5) to determine the main idea. Remind them that they have read for the main idea before and the graphic organizer on page 8 of their Simple Machines Science journal should look familiar (first introduced in Module 1, Unit 2, Lesson 2). Point out the box for recording the main idea and boxes for recording supporting details. • Invite students to reread the text out loud with a partner and discuss what they think the main idea of the text is. • Use equity sticks to call on pairs to share their main ideas. Using a document camera, model recording the main idea in the graphic organizer on page 8 of the Simple Machines Science journal, titled “Building Background Knowledge: What Are Simple Machines?” A possible main idea from the text could be: “Machines have been used in the past and present to help people do work,” or “Simple machines help people past and present to do work.” Direct the students to write the main idea in the graphic organizer of their researcher’s notebook. Students can copy the exact phrasing that is written on the class chart, or they can put it in their own words.	• Consider placing gist cards on each table. This could be a gist sentence generated from the previous day’s lesson. This may help your struggling readers focus on the most important parts of the text. • It may help your ELLs or struggling readers to pair with students reading at higher levels to discuss the main idea and supporting details.



Work Time (continued)	Meeting Students' Needs
B. Partner Reading: Supporting Details (15 minutes) - Inform students they will again read pages 4 to 5 in the book to identify details supporting the main idea of the text and record into the next three boxes of their graphic organizers. Briefly review the Topic Expansion graphic organizer (which students should recognize from Module 1, Unit 2, Lesson 2). Post and hand out copies of the Directions for Partner Reading: - Take turns rereading the text paragraph by paragraph. - Look for details that support the main idea. - Record three details that best support the main idea into the middle boxes of your graphic organizer (use notes or phrases, not sentences). - Synthesize what you have learned by answering the question in the box on the right of the graphic organizer. - Stop: We will answer the question at the bottom of page 8 together later in this lesson. - Give students at least 10 minutes to reread and record. - Invite each pair to join another pair to share the details they have identified supporting the main idea. Some details they may identify could be: "In ancient Egypt, workers used levers to lift heavy blocks to put them in the right spot," or "As the pyramids grew taller, the workers built ramps to move the heavy blocks to a higher level of the pyramid."	- Providing students with highlighters to find supporting details may help them identify the information they need in the text. - Consider underlining the words in bold and including visuals next to each step.
C. Writing Like a Scientist (15 minutes) - Explain to students that they will now use their graphic organizer to write a paragraph on page 8 of their Science journals that expresses the main idea and details of the portion of the text they read. Ask them to read the second learning target: "I can write a complete paragraph describing what simple machines do using details from the text." Ask them what it means to write a "complete paragraph." Jot their thinking down above the words in the learning target for clarification. Explain to students that after they have read the text and determined the main idea, they will write a paragraph describing what simple machines do. - Remind students of the work they did writing paragraphs in Modules 1 and 2. Remind them that the characteristics of a quality paragraph are: a topic sentence, supporting details, and a concluding sentence. - Give students 10 minutes of work time to write one paragraph.	Using paragraph frames can help ELLs articulate their learning. For example: "Simple machines are _____. One of the ways simple machines help people is _____. Another way simple machines help people is _____."



Reading and Writing about Simple Machines

Closing and Assessment	Meeting Students' Needs
A. Browsing and Selecting Independent Reading Books (5 minutes) • Allow students time to select a book from the recommended texts for this unit for independent reading. Let students know that you expect them to read at home from this book and will be asked to do so for homework as well as in class. Be sure to assist students in selecting a book at their independent reading level.	
B. Reflecting on Learning Targets (5 minutes) • Direct students' attention to the second learning target: "I can use details from the text to explain what simple machines do using details from the text." Ask students to Think-Pair-Share about how successful they were in meeting this learning target. Make sure they show evidence from their paragraphs to support their reflection. • Remind students that tomorrow they will be assessed on the learning targets they used today. On the assessment they will be asked to identify the main idea of new scientific text about simple machines and write a paragraph explaining how simple machines are used.	
Homework	Meeting Students' Needs
• Review pages 4 to 5 in <i>Simple Machines: Forces in Action</i>. Answer the question on the Homework for Simple Machines: Forces in Action, pages 4–5 handout using evidence from the text. • Begin to read from the independent reading book you selected for this unit.	



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Grade 4: Module 3A: Unit 1: Lesson 2

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Directions for Partner Reading

Directions for creating: Write the following underneath on chart paper to create this anchor chart.

1. Take turns rereading the text paragraph by paragraph.
2. Look for details that support the main idea.
3. Record three details that best support the main idea into the middle boxes of your graphic organizer (use notes or phrases, not sentences).
4. Stop: We will complete last box and answer the question at the bottom of page 4 in the next lesson.



Homework for *Simple Machines:*

Forces in Action, pages 4–5

Name:

Date:

Read pages 4–5 in *Simple Machines: Forces in Action* again. The text says: “Effort is a **force** acting on an object that moves the object.” Explain what this sentence means using evidence from the text to support your thinking.



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Unit 1: Lesson 3

Mid-Unit 1 Assessment and Introduction to Science Talks



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)	
I can effectively engage in discussions with diverse partners about fourth-grade topics and texts. (SL.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 historical, scientific, or technical text, using specific details in the text. (RI.4.3)	
Supporting Learning Targets	Ongoing Assessment
• I can determine the main idea of a scientific text. • I can explain how simple machines help people do work using details from the text. • I can effectively participate in a Science Talk about simple machines. I can prepare for the Science Talk by gathering evidence from scientific texts about simple machines.	• Mid-Unit 1 Assessment: Finding the Main Idea of a Scientific Text • Simple Machine Science journals (page 9)



Agenda	Teaching Notes
- Opening - Engaging the Reader and Reviewing Learning Targets (5 minutes) - Work Time - Mid-Unit 1 Assessment: Finding the Main Idea of a Scientific Text (20 minutes) - Science Talks: Communicating Like Scientists (5 minutes) - Preparing Evidence and Questions for the Science Talk (10 minutes) - Conducting the Science Talk (15 minutes) - Closing and Assessment - Reflect on Discussion (5 minutes) - Homework - Continue reading in your independent reading book for this unit at home.	- Science Talks provide students the opportunity to collectively theorize and build on each other's ideas. These talks provide a window to students' thinking that helps teachers figure out what students know and possible misconceptions. - Because this lesson is an introduction to the Science Talk for students, it may take longer than 60 minutes to complete the mid-unit assessment and the Science Talk. Consider breaking this lesson into two class periods if you feel that your students need more time to complete these tasks. - Students will need access to pages 4–5 of <i>Simple Machines: Forces in Action</i> and their Simple Machines Science journals (for their Science Talk). - Review: Science Talk protocol (see Appendix). - Post: Learning targets.



Lesson Vocabulary	Materials
norms, discussion, Science Talk, participate, effectively, inform, impact	• Mid-Unit 1 Assessment: Finding the Main Idea of a Scientific Text (one per student) • Mid-Unit 1 Assessment (answers, for teacher reference) • 2-Point Rubric: Writing from Sources/Short Response (for teacher reference) • Science Talk Norms anchor chart (newly created) • Simple Machine Science journals (introduced in Lesson 2) • Document camera • Participating in a Science Talk anchor chart (see supporting materials) • Sticky notes • Science Talk Criteria checklist (for teacher reference) • Equity sticks



Opening	Meeting Students' Needs
A. Engaging the Reader and Reviewing Learning Targets (5 minutes) • Collect students' homework from Lesson 2. • Tell students today they will complete a formal assessment in which they will do on their own much of what they have been practicing: – Read an informational text. – Identify and record the main idea and details in the graphic organizer. – Answer text-dependent questions. – Write a paragraph based on details from the text. • Remind them they will need to refer to the text to answer the questions thoroughly. They will be assessed on being able to identify the main idea and details from the text that support it. • Encourage students to do their best. Let them know this is a chance to show what they know and the effort they make to read carefully and identify important details in an informational text. This also is an opportunity to discover even more about simple machines. • Ask students to read the first two learning targets silently (“I can determine the main idea of a scientific text,” and “I can write a paragraph explaining how simple machines are used in daily life using details from the text”). Have them give a thumbs-up if they are clear on what's expected of them, a thumbs-sideways if they understand part but not all of what to do, and a thumbs-down if they are very unsure. Address any clarifying questions before beginning the assessment.	• Using visual cues or physical gestures for the term <i>main idea</i> will help your ELLs connect this to learning done in previous sessions. • Consider underlining or drawing a box around the vocabulary words in the learning targets to help struggling readers focus on those key words.



Work Time	Meeting Students' Needs
A. Mid-Unit 1 Assessment: Finding the Main Idea of a Scientific Text (20 minutes) • Distribute the Mid-Unit 1 Assessment: Finding the Main Idea of a Scientific Text. Give students 20 minutes to complete the assessment. • While students take the assessment, circulate to monitor their test-taking skills. This is an opportunity to analyze students' behaviors while taking an assessment. Document strategies students are using during the assessment. For example, look for students annotating their text, using their graphic organizer to take notes before answering questions, and students going back to the text as they answer questions.	• For students needing additional support producing language, consider offering a word bank of content words from the text to be used in the graphic organizer.
B. Science Talks: Communicating Like Scientists (5 minutes) • Introduce the Science Talk by saying researchers share information they have learned with others and ask questions of other experts. This helps experts build their understanding by sharing their own thoughts as well as learn from what others say. Experts in the real world talk all the time to expand their thinking. • Remind students of all the learning they have done so far about simple machines. Tell them today they will have the opportunity to use what they've learned in a Science Talk. Share today's last learning target for the Science Talk. "I can effectively participate in a Science Talk about simple machines." Ensure that students understand the meaning of the words <i>effectively</i> and <i>participate</i>. • Inform students that a Science Talk is a discussion about big or important questions scientists have. While scientists discuss these big questions with one another, it is important for them to create a set of rules, or norms, they'll follow so everyone's ideas can be heard and considered. • Start a Science Talk Norms anchor chart and focus students' attention on the phrase <i>effectively participate</i>. Ask them what it looks/sounds like to effectively participate with peers. Listening for ideas such as: "Wait my turn to speak, so I am heard; don't shout/speak too loudly; make sure everyone gets a turn to speak; no one person does most/all of the speaking; use information from text to support my ideas," etc. Add students' ideas to the anchor chart.	• Science Talks help your ELLs process their thinking verbally, and learn from the thoughts of others. • Encourage students to agree or disagree using thumbs-ups or thumbs-down. This can help students who struggle with language to process what their peers say. • Consider drawing visuals next to each norm, giving ELLs another access point to understand the text. Providing visual models of academic vocabulary supports language development and comprehension.



Work Time (continued)	Meeting Students' Needs
C. Preparing Evidence and Questions for the Science Talk (10 minutes) • Ask the class the Science Talk question (which is also a guiding question): “How do simple machines impact our lives?” Clarify the meaning of the word <i>impact</i> if necessary. During this talk, students will start to build an understanding of how simple machines impact our lives. • Refer to the supporting learning target for today: “I can prepare for the Science Talk by gathering evidence from scientific texts about simple machines.” Explain the importance of experts sharing specific evidence from texts in their discussions with others. • Show page 9 of the Simple Machine Science journals on the document camera. Point out the different sections for recording notes on this page. Indicate to students they will only be taking notes on the first two sections of the recording form. The last two sections are for reflection and goal setting. • Briefly model how to fill in the first section on page 9 using evidence from the texts. In the first column, you could write: “When I read that pyramid workers used levers to help pick up bricks.” And in the second column: “I think levers help lift heavy things.” • Explain to students that the section marked “My Science Talk Notes: Ideas and Questions” is a space to write notes and questions during the Science Talk and to leave this space blank until the discussion begins. • Give students 10 minutes to complete their first section of page 9. Confer with the class as necessary, and remind them to use specific evidence from the text to support their thinking.	• Having the students generate a physical gesture for the word <i>impact</i> will help your struggling readers associate meaning to this word. • Allow ELLs and other students to use pictures and symbols as necessary on their recording forms.



Work Time (continued)	Meeting Students' Needs
D. Conducting the Science Talk (15 minutes) • Gather students on the rug. Remind them to bring their Simple Machine Science journals. Display the Participating in a Science Talk anchor chart for students. Briefly review the anchor chart with students, and answer any clarifying questions. • Remind students they can take notes in the second section on page 9 of their Science journal if they think of an idea or question they would like to share while waiting their turn to speak. • As you circulate and note which students speak and what ideas are being shared, record these observations on sticky notes. Refer to these in future lessons. • Direct students to begin the Science Talk. Use the Science Talk Criteria checklist during this time to monitor student progression toward the learning targets. Quickly redirect and support students as needed, but avoid leading the conversation. Remind students that their questions and comments should be directed to one another, not the teacher. Briefly review the Science Talk Norms anchor chart.	• Provide sentence frames for students as they participate in the Science Talk: “When I saw/heard _____, I learned _____” and “I wonder _____.”



Closing and Assessment	Meeting Students' Needs
A. Reflect on Discussion (5 minutes) Read aloud the learning target: "I can effectively participate in a Science Talk about simple machines." Ask students to give a thumbs-up if they met the target or thumbs-down if they still need to work on the target. Using equity sticks, cold call several students to share why they gave themselves a thumbs-up or thumbs-down, prompting them to refer to the norms they determined for the Science Talk Norms anchor chart to support their self-assessment.	Allowing students to work in small groups provides the opportunity for all students to share their voices.
Homework	Meeting Students' Needs
Continue reading in your independent reading book for this unit at home. <i>Note: Students will need specific feedback from this Science Talk to reflect on and set goals before beginning their next Science Talk (Unit 2, Lesson 6). Write feedback on the Teacher Feedback sections on page 9 of students' Simple Machines Science journal.</i> <i>Focus the feedback on the learning target that was emphasized in this lesson: "I can prepare for the Science Talk by using evidence from scientific texts." Also give suggestions to students who may need more coaching to follow the Science Talk norms created in this lesson. Keep feedback focused, brief, and encouraging. For example: "I noticed that you recorded three pieces of evidence from the text on your form. Great! During our next Science Talk, be sure to mention the text during the class the discussion." Or: "I noticed you were able to use evidence from the text when sharing your ideas during the Science Talk. Good work! One thing you should focus on for our next Science Talk is waiting your turn to speak."</i>	



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Grade 4: Module 3A: Unit 1: Lesson 3

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Mid-Unit 1 Assessment:
Finding the Main Idea of a Scientific Text

Name:

Date:

Directions:

1. Read “Everyday Simple Machines” text.
2. Complete the graphic organizer.
3. Use evidence from the text to answer the questions.

Everyday Simple Machines

Wouldn't it be great if there were some cool inventions that could make work easier? Actually, there are! These inventions are ancient, and they are called **simple machines**. Simple machines have helped people do **work** for ages, and they are still used today.

When you ride an elevator, you are using a pulley. When you cut something with a knife, you are using a wedge. When you open a jar, you are using a screw. Simple machines are all around us. A slide is an inclined plane, a doorknob is actually a wheel and axle, and the handle on your toilet is a lever. It is amazing, really, how our lives are made easier by simple machines.

But simple machines are not called simple because they make life simple; they are called simple because they have few or no moving parts. And they make only a certain type of work easier, too. They won't help with your homework, but they can help you move something. If you need to push, pull, or lift something, a simple machine makes it easier by reducing the amount of **effort** needed.

Great, so using a simple machine means less work, right? Actually, no. When you use a simple machine, there is a trade-off. It takes less effort, but you have to move a greater distance. For example, if you choose to walk up a ramp instead of the stairs, it might not feel as hard, but you have to walk a longer distance. So you end up using about the same amount of **energy**.

So the next time you ride your bike down a ramp, bite down on apple, open a can of peanut butter, reel in a fish, or ride on a seesaw, thank a simple machine. They make work easier, but they can also make life more fun!



Mid-Unit 1 Assessment:
Finding the Main Idea of a Scientific Text

Glossary

effort: a force (push or pull) that moves an object

energy: the ability to do work

simple machines: tools with few or no moving parts that make work easier; there are six types of simple machines: inclined plane, lever, pulley, screw, wedge, and wheel and axle

work: using a force (push or pull) to move an object over a distance

Written by Expeditionary Learning for Instructional Purposes

Sources:

Buffy Silverman, *Simple Machines: Forces in Action*, Do It Yourself series (New York: Heinemann, 2009); ISBN: 978-1-4329-2317-4.

Science Education at Jefferson Lab: <http://education.jlab.org/>, education.jlab.org/jsat/powerpoint/work_and_simple_machines.ppt

The Franklin Institute, Resources for Science Learning: <http://www.fi.edu/qa97/spotlight3/>

Scholastic Teacher Resource: <http://teacher.scholastic.com/dirtrep/simple/invest.htm>



Mid-Unit 1 Assessment:
Finding the Main Idea of a Scientific Text

Main Idea:	Supporting Detail	Why are simple machines important?
	Supporting Detail	
	Supporting Detail	

Mid-Unit 1 Assessment:
Finding the Main Idea of a Scientific Text

1. Which of the following is the best example of a main idea for this text?
 - A. Simple machines are easy to make.
 - B. Simple machines are only good for some work.
 - C. Simple machines are old.
 - D. Simple machines can be found everywhere and are used everyday.

2. Which detail from the text best supports the main idea in Question 1?
 - A. “Simple machines have helped people do work for ages ...”
 - B. “When you ride an elevator, you are using a pulley.”
 - C. Simple machines “have few or no moving parts.”
 - D. “They won’t help with your homework ...”

3. Which detail from the text helps explain how simple machines help with work?
 - A. “... a simple machine makes [work] easier by reducing the amount of effort needed.”
 - B. “They make work easier, but they can also make life more fun!”
 - C. “... our lives are made easier by simple machines.”
 - D. “Simple machines have helped people do work for ages ...”

Mid-Unit 1 Assessment:
Finding the Main Idea of a Scientific Text

4. Reread the following paragraph from the text and answer the question below:

“Great, so using a simple machine means less work, right? Actually, no. When you use a simple machine, there is a trade-off. It takes less effort, but you have to move a greater distance. For example, if you choose to walk up a ramp instead of the stairs, it might not feel as hard, but you have to walk a longer distance. So you end up using the same amount of energy.”

What is the *trade-off* of using simple machines described in this paragraph? Use details from the text to support your answer.



Mid-Unit 1 Assessment:
Finding the Main Idea of a Scientific Text

5. Write a paragraph explaining how simple machines are used to help do work in everyday life.
Use details from the text to support your explanation.

Mid-Unit 1 Assessment:
Finding the Main Idea of a Scientific Text
(Answers, for Teacher Reference)

1. Which of the following is the best example of a main idea for this text?
 - A. Simple machines are easy to make.
 - B. Simple machines are only good for some work.
 - C. Simple machines are old.
 - D. **Simple machines can be found everywhere and are used everyday.**

2. Which detail from the text best supports the main idea in Question 1?
 - A. “Simple machines have helped people do work for ages ...”
 - B. **“When you ride an elevator you are using a pulley.”**
 - C. Simple machines “have few or no moving parts.”
 - D. “They won’t help with your homework ...”

3. Which detail from the text helps explain how simple machines help with work?
 - A. **“... a simple machine makes [work] easier by reducing the amount of effort needed.”**
 - B. “They make work easier, but they can also make life more fun!”
 - C. “... our lives are made easier by simple machines.”
 - D. “Simple machines have helped people do work for ages ...”

Mid-Unit 1 Assessment:
Finding the Main Idea of a Scientific Text
(Answers, for Teacher Reference)

***Note: Use the rubric below to score the following questions:**

4. Reread the following paragraph from the text and answer the question below:

“Great, so using a simple machine means less work, right? Actually, no. When you use a simple machine there is a trade-off. It takes less effort, but you have to move a greater distance. For example, if you choose to walk up a ramp instead of the stairs, it might not feel as hard, but you have to walk a longer distance. So you end up using the same amount of energy.”

What is the *trade-off* of using simple machines described in this paragraph? Use details from the text to support your answer.



Mid-Unit 1 Assessment:

Finding the Main Idea of a Scientific Text
(Answers, for Teacher Reference)

5. Write a paragraph explaining how simple machines are used to help do work in everyday life.
Use details from the text to support your explanation.

2-Point Rubric: Writing from Sources/Short Response¹
(For Teacher Reference)

Use the below rubric for determining scores on short answers in this assessment.

2-point Response	The features of a 2-point response are: • Valid inferences and/or claims from the text where required by the prompt • Evidence of analysis of the text where required by the prompt • Relevant facts, definitions, concrete details, and/or other information from the text to develop response according to the requirements of the prompt • Sufficient number of facts, definitions, concrete details, and/or other information from the text as required by the prompt • Complete sentences where errors do not impact readability
1-point Response	The features of a 1-point response are: • A mostly literal recounting of events or details from the text as required by the prompt • Some relevant facts, definitions, concrete details, and/or other information from the text to develop response according to the requirements of the prompt • Incomplete sentences or bullets
0-point Response	The features of a 0-point response are: • A response that does not address any of the requirements of the prompt or is totally inaccurate • No response (blank answer) • A response that is not written in English • A response that is unintelligible or indecipherable

¹From New York State Department of Education, October 6, 2012.



Science Talk Criteria Checklist

Teacher directions: List each student's name. Add any norms your class has agreed on. In the columns, note how well each student demonstrates the norms and meets the learning targets listed in the heading columns.

Learning target: I can effectively participate in a Science Talk about simple machines.

- I can follow our class norms when I participate in a conversation (review from Module 1).
- I can prepare for the conversation by using evidence from simple machines texts.
- I can ask questions so I am clear about what is being discussed.
- I can ask questions on the topic being discussed.

Student name	Norms	Prepare with evidence	Ask questions to clarify understanding	Connect questions to what others say	Teacher comments



Science Talk Criteria Checklist

Student name	Norms	Prepare with evidence	Ask questions to clarify understanding	Connect questions to what others say	Teacher comments



Participating in a Science Talk Anchor Chart

- Real scientists often participate in Science Talks to share ideas and work through questions they have.
- Think about the question: How do simple machines impact our lives?
- Revisit the text and gather evidence to support your thinking.
- Gather in a circle on the floor, with your Science journals.
- Take turns sharing your thinking about the question. Be sure to reference the evidence you gathered from the text.
- As you listen to the conversation, record any new ideas or questions you would like to share with the group as you wait to speak.
- Respond to others and build on their ideas.
- Follow Science Talk norms.



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Unit 1: Lesson 4

Learning from Literature: Simple Machines

Readers Theater



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

I can use literary terms to describe parts of a story, poem, or drama (e.g., verse, rhythm, meter, casts of characters, settings, descriptions, dialogue, stage directions). (RL.4.5)
I can describe the differences in structures of poems, drama, and prose. (RL.4.5)
I can explain what a text says using specific details from the text. (RL.4.1)
I can read fourth-grade-level texts with fluency. (RF.4.4)
I can express my own ideas clearly during discussions. (SL.4.1)
I can follow our class norms when I participate in a conversation. (SL.4.1)

Supporting Learning Targets

- I can share my opinion on a topic and respect the opinions of others.
- I can identify the characteristics of Readers Theater through examining the text *The Machine*.
- I can explain how drama is different from other types of fiction.

Ongoing Assessment

- Exit ticket



Agenda	Teaching Notes
1. Opening A. Forming Opinions as Readers (15 minutes) B. Reviewing Learning Targets (5 minutes) 2. Work Time A. Noticing the Characteristics of Readers Theater (10 minutes) B. First Read of Readers Theater: Getting the Gist of <i>The Machine</i> (10 minutes) C. Second Read: Practice Performing a Readers Theater (15 minutes) 3. Closing and Assessment A. Exit Ticket (5 minutes) 4. Homework A. Reread <i>The Machine</i> silently to yourself. Find your lines and mark with a star in pencil. Practice reading your assigned part out loud to a family member, friend, or yourself.	• This lesson has three purposes. The first and obvious purpose is to continue to build students' knowledge about simple machines. This second purpose is to orient students to the skill of sharing and supporting their opinions with evidence; this begins to prepare students for the module performance task, which focuses on W.4.1. The final purpose is to engage students on the topic of simple machines by introducing some of their daily uses as described by a Readers Theater. This also introduces students to a new genre (drama). Because students began this unit by reading informational text, it is important to signal the shift to reading literature. Explain to students that readers use a variety of texts to learn about a topic; they will still be building content knowledge about simple machines. • In this lesson students examine the structure of drama and learn how drama is different from other types of literature (RL.4.5). Emphasize this, since it is students' first time working with this standard. • Prepare the Exploring Opinions as Readers and Writers anchor chart and the Readers Theater anchor chart (see supporting materials for directions). • Review Mix and Mingle (see supporting materials). • In advance: Consider practicing reading the Readers Theater script <i>The Machine</i> (spoken parts only) aloud before this lesson, to prepare to model fluent reading of this text for students. • Determine which students to assign to each part on s 219–221. There are 12 parts, so two or three students may need to be assigned to the same part. Consider partnering ELL L1s with L2s of the same home language or less fluent readers with more fluent readers. Students will practice their lines for homework and again with their partner in the next lesson. • Students will read from page 219 title, “<i>The Machine</i>,” until the line “CHILD 4: Yes, and when you put them together, you can make big, big machines.” • Note: <i>The Machine</i> (pp. 219–221 in the book <i>Take a Quick Bow!</i> by Pamela Marx) (one book for the teacher plus copies for students.) The book explicitly indicates: “Only portions of this book intended for classroom use may be reproduced without permission in writing from the publisher.” Thus, making copies for students is permissible. • Post: Learning targets.



Lesson Vocabulary	Materials
opinion, fiction, Readers Theater, drama, set, players, script	• Exploring Opinions as Readers and Writers anchor chart • Mix and Mingle (directions posted or copied on board; see supporting materials) • Readers Theater anchor chart • <i>The Machine</i>, pages 219–221 in <i>Take a Quick Bow!</i> by Pamela Marx (one book for the teacher, plus copies for students; see teaching notes) • Highlighters or sticky notes (for each student) • Document camera • Equity sticks • 3" x 5" index cards (one per student)



Opening	Meeting Students' Needs
A. Forming Opinions as Readers (15 minutes) • Post the first learning target: “I can share my opinion on a topic and respect the opinions of others.” Have students turn to a partner and explain this target in their own words. Have a few pairs share their thinking. • Post the Exploring Opinions as Readers and Writers anchor chart. Read the definition of <i>opinion</i> written on the chart “Opinion: what a person thinks about a topic; their view or judgment. This thinking can be based on facts, feelings, experience, or a combination of all three.” • Tell students they will be reading and writing like scientists as they research simple machines. But they will also examine how readers and writers share and support opinions. Explain that over the next several weeks, they’ll study a lot of facts about simple machines and they’ll practice forming and supporting opinions about how these machines help people do work. • Tell students that today they will practice forming and sharing their opinions. Explain that sometimes people become emotional about their opinions and even angry when others do not agree with them. Ask students to think about what it means to “respect the opinions of others.” Have them turn to a partner and discuss what it means to them. Have pairs share and briefly discuss with the class what it will look and sound like when they respect others’ opinions. Listen for students to suggest behaviors such as looking at the speaker, one person speaking at a time, and disagreeing calmly and kindly. Consider giving students sentence frames for disagreeing with their peers and practice using a respectful tone of voice (“I disagree with that because I think _____”). • Tell students they are going to read a Readers Theater about simple machines. Explain that <i>Readers Theater</i> is a type of fiction. Point out that so far they’ve been reading informational text about simple machines. If necessary, review the meaning of the word <i>fiction</i> (an imagined story). • Tell them you would like them to form an opinion, which they will share in a few minutes with their peers. Be clear with students that at this moment, they are just thinking about the question, not answering aloud. Ask and post the following questions on the board: * “Is fiction a good teacher of facts? What is your opinion and why?” • Explain that there is not one set right or wrong answer. Remind students they must have a reason for their opinion, so they should be ready to explain their answers to this question when they share.	• This activity gives students practice forming their opinions. In Lesson 6, they then take the next step to support those opinions with reasons drawn from examples in the text <i>The Machine</i>. These two lessons give students oral practice with these skills before they write in Unit 3 (W.4.3). This oral rehearsal supports all students, particularly ELLs. • Consider placing ELLs who are L1 with an L2 who speaks the same language. <i>Note: Rules for eye contact vary across cultures, particularly for eye contact between people of different genders or with those who are considered authority figures. Be sure to be sensitive to this when discussing eye contact with your students.</i>



Opening (continued)	Meeting Students' Needs
• Tell students that they are going to use a Mix and Mingle to practice sharing their opinions and respecting others' opinions. Explain that Mix and Mingle is similar to Think-Pair-Share, but instead of sharing with a single partner, they get to move around and share their thinking with several peers. Post the following directions below the question: • Post the following directions for Mix and Mingle: 1. Read the question and think about your opinion. 2. Stand up and find a partner. 3. Share your opinions with each other. Be sure to explain why you have this opinion. Be respectful speakers and listeners. 4. Thank your partner, then find another and repeat. • Address any clarifying questions about Mix and Mingle. • Give students 1 minute to complete Step 1 of the directions. • Then give students 4 minutes to complete the rest of the steps for Mix and Mingle. Listen to students' conversations for opinions based on prior experience reading fiction in class. (For example, some students may feel fiction is imaginary and therefore cannot reliably teach facts; others may recall the facts that were important to the genre of historical fiction in the previous module and believe that readers can learn facts from fiction.) • Gather students together and ask for a few volunteers to share their opinions. Try to get at least one opinion from each perceptive. • Tell students today they will read a piece of fiction related to simple machines and think more about their opinion on this question.	• For students who need further support participating in discussions, consider handing out hard copies of the Mix and Mingle directions for their reference.



Opening (continued)	Meeting Students' Needs
B. Reviewing Learning Targets (5 minutes) • Tell students today they'll read a text called <i>The Machine</i>, which is a type of fiction called <i>Readers Theater</i>. Explain to students that for the last few lessons they have been reading informational text to learn about simple machines, so they'll have some background knowledge to help them understand this new text. Tell them that they will revisit the question "Is fiction a good teacher of facts?" after they have a chance to read. • Post the following learning targets: "I can identify the characteristics of Readers Theater through examining the text <i>The Machine</i>," and "I can explain how drama is different from other types of fiction." Ask students to Think-Pair-Share about the phrase <i>Readers Theater</i> and discuss what the characteristics of this type of text could be. Then have a few pairs share with the whole group. • Explain that Readers Theater is a special type of <i>drama</i> or performance. Give students examples of different types of drama plays, movies, puppet shows. Explain that today students will learn about the characteristics of Readers Theater and be asked to <i>explain</i> how this type of drama different from other types of fiction.	



Work Time	Meeting Students' Needs
A. Noticing the Characteristics of Readers Theater (10 minutes) - Place students with a reading partner. Tell students today they'll learn about drama by reading a Readers Theater and then revisit their opinions about whether fiction teaches facts. Post the Readers Theater anchor chart (see supporting materials for a model). Read the definition of Readers Theater written below the title: "Readers Theater." * "IT IS ... a type of drama where performers read a script aloud to an audience. Usually, there are no costumes or sets and lines are not memorized." - Circle the word <i>script</i>. Explain to students the meaning of script as: "the written text of a play or Readers Theater" and tell them this is a characteristic of Readers Theater. Record the word and its definition below the section of the chart labeled "IT HAS ..." - Explain that now you would like students to examine the text and help you identify other characteristics to add to the anchor chart. Distribute the text <i>The Machine</i>, pages 219–221 in <i>Take a Quick Bow!</i> by Pamela Marx. - Ask students to look at page 219 and see what they notice about the characteristics of a Readers Theater. Encourage students to annotate the text with pencils, highlighters or sticky notes. Give students 5 minutes to read the text, annotate, and discuss with their partner. - Display page 219 of the text using a document camera. Use equity sticks to cold call pairs to share what they notice. Identify the following terms and definitions as students share what they notice about the text: <i>players</i>, <i>dialogue</i>, <i>directions</i>. Add words and definitions to the Readers Theater anchor chart so it has students' own words that are like the following in the section for "IT HAS ...": – a script: written text of a play or Readers Theater – players: characters in a play or Readers Theater, who are usually listed in the beginning of the script; their names are written in bold text to indicate when they speak – dialogue: lines players or characters speak aloud in a performance; each line is written after the bolded name of the player that is to speak it – stage directions: tell performers how to act or what to do during the performance, usually written in italics and/or in parenthesis	Consider placing ELLs who are L1 with an L2 who speaks the same language. Also consider providing definitions of Readers Theater and related vocabulary in students' home language.



Work Time (continued)	Meeting Students' Needs
B. First Read of Readers Theater: Getting the Gist of <i>The Machine</i> (10 minutes) • Tell students you'll read the text aloud so students can see what Readers Theater is about. Be sure to point out that this first read is not a performance, since you will read all parts of the script, including the stage directions. Ask them to read along and listen for the gist of the text. What is it mostly about? • Read aloud pages 219–221 to the students, using different voices to signal the switch from one character to another. Stop reading once you have read the following line towards the bottom of page 221: "CHILD 4: Yes, and when you put them together, you can make big, big machines." • Ask student to turn to a partner to explain what the gist of text is. Give pairs a few minutes to brainstorm. Using equity sticks, cold call a few students to share with the whole group. Students should notice that the text is about the six types of simple machines and examples of the how they are used to do work. • Ask the students to write their gist statements at the top of their copies of the play (page 219 of <i>Take a Bow</i>).	



Work Time (continued)	Meeting Students' Needs
C. Second Read: Practice Performing a Readers Theater (15 minutes) • Display page 219 of the text on the document camera. Explain to students that you'll read the text aloud again, but this time just the spoken parts, so they can see which parts of a Readers Theater are read aloud to the audience. Ask them to read along and notice the parts of the text you read aloud and those you skip. • Read the first three lines from page 219 (CHILD 1, CHILD 2, and CHILD 3), skipping the list of players and stage directions at the top of the text to model this for students. Ask students to turn to a partner and point out: * "Which portions of the text were read aloud? Which were not? Why?" • Have groups share out and highlight the portions of the text read aloud on the text using the document camera. • Explain to students that now they get to try reading the script, focusing on the first page (page 219). Place students in groups of six. (If your class does not divide evenly into six, make some groups of five.) Explain that their reading is not likely to be very good this first time, but not to worry. They will practice more later. Once students are grouped, ask them to follow these directions: 1. Count off from 1 to 6. 2. On page 219 only: Identify your players' line(s). Individually, practice reading your line(s). 3. As a group, take turns reading your lines aloud. • Give students 10 minutes to do the above. As groups practice, circulate and support them. The purpose of this part of the lesson is to give students practice reading the text structure of drama and help them read this text fluently.	• To further support struggling readers, consider dividing parts then reading it as a whole class before breaking into groups. This will provide struggling readers with more practice reading their parts and allow them to hear the text read aloud by others. • Since students will later divide parts and read <i>The Machine</i> as a whole class, they should not yet mark parts, as this may confuse them later.



Closing and Assessment	Meeting Students' Needs
A. Exit Ticket (5 minutes) • Have students Think-Pair-Share on the following question: How is reading drama like Readers Theater different from reading other fiction? Once students have shared their thoughts with a partner, ask them to write an answer to the question on 3" x 5" index cards and turn it in as an exit ticket. • Assign students a part to practice for homework from page 219 and stopping at page 221 after the line “CHILD 4: Yes, and when you put them together, you can make big, big machines.” • Since there are 12 parts, two or three students may need to be assigned the same part.	• For students who struggle with writing, consider checking for understanding by listening to their conversation with a partner.
Homework	Meeting Students' Needs
• Reread <i>The Machine</i> silently to yourself. Find your lines and mark with a star in pencil. Practice reading your assigned part out loud to a family member, friend, or yourself. <i>Note: Use exit tickets to determine gaps in student understanding of the structure of drama versus other types of fiction. This allows you to adjust your instruction to address these gaps or misunderstandings in the beginning of the next lesson.</i>	



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Unit 1: Lesson 4

Supporting Materials



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Exploring Opinions as Readers and Writers Anchor Chart
(For Teacher Reference)

Directions: Write the following at the top of a piece of chart paper:

Exploring Opinions as Readers and Writers

opinion—what a person thinks about something or someone. This thinking can be based on facts, feelings, experience, or a combination of all three.



Mix and Mingle

Description: Mix and Mingle is similar to Think-Pair-Share, but instead of sharing with a single partner, students get to move around and share their thinking with several peers.

Directions for students:

1. Read the question and think about your opinion.
2. Stand up and find a partner.
3. Share your opinions with each other. Be sure to explain why you have this opinion. Be respectful speakers and listeners.
4. Thank your partner, then find another and repeat.



Readers Theater Anchor Chart
(For Teacher Reference)

Directions: Write the following at the top of a piece of chart paper.

Readers Theater

IT IS ...

a type of drama where performers read a script aloud to an audience. Usually, there are no costumes or sets and lines are not memorized.

IT HAS ...



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Unit 1: Lesson 5

Learning from Literature Continued: Examining Text Structure, Vocabulary, and Information about Simple Machines in the Readers Theater *The Machine*



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

I can use literary terms to describe parts of a story, poem, or drama (e.g., verse, rhythm, meter, casts of characters, settings, descriptions, dialogue, stage directions). (RL.4.5)
I can describe the differences in structures of poems, drama, and prose. (RL.4.5)
I can explain what a text says using specific details from the text. (RL.4.1)
I can read fourth-grade-level texts with fluency. (RF.4.4)
I can express my own ideas clearly during discussions. (SL.4.1)
I can use a variety of strategies to determine the meaning of words and phrases. (L.4.4)

Supporting Learning Targets

- I can identify the characteristics of Readers Theater through examining the text *The Machine*.
- I can share my opinion on a topic and respect the opinions of others.
- I can determine the meaning and pronunciation of challenging words.
- I can explain what the text says about simple machines using details from the text.

Ongoing Assessment

- Annotated text (*The Machine*)



Agenda	Teaching Notes
1. Opening A. Reviewing Learning Targets (5 minutes) 2. Work Time A. Identifying Characteristics of Readers Theater (10 minutes) B. Tackling Challenging Vocabulary and Pronunciation (20 minutes) C. Identifying Information about Simple Machines (15 minutes) 3. Closing and Assessment A. Preparing for Performance and Assessment (5 minutes) B. Debrief: Revisiting Our Opinions (5 minutes) 4. Homework A. Practice reading your assigned lines from <i>The Machine</i>. Read the line directly before your lines silently, then read your line aloud to help prepare you for the performance. If possible, find someone at home to read aloud the parts before and after you line.	• In this lesson, students do a close reading of <i>The Machine</i> (pages 219–221 in the book <i>Take a Quick Bow!</i>, by Pamela Marx) with a focus on text structure, meaning, and vocabulary. Consider which students may need to be pulled into a small group for more supported reading of grade-level texts. • In advance: Consider tape recording this Readers Theater in advance so struggling readers can listen to it while they read. See Work Time A. • Post: Learning targets.



Lesson Vocabulary	Materials
pronunciation, stage, technology, ancient, remain, dollies, Atlas	• <i>The Machine</i>, pages 219–221 in <i>Take a Quick Bow!</i> • Readers Theater anchor chart (from Lesson 4) • Document camera • Highlighter (one per student) • Vocabulary Strategies anchor chart (from Lesson 1) • Equity sticks

Opening	Meeting Students' Needs
A. Reviewing Learning Targets (5 minutes) • Post the learning targets. Ask students to find a partner and explain in their own words the meaning of the two targets they recognize from Lesson 4: “I can identify the characteristics of Readers Theater through examining the text <i>The Machine</i>,” and “I can share my opinion on a topic and respect the opinions of others.” Have pairs share their explanations and clarify as necessary. Students should have a good understanding of these targets from Lesson 4. Explain that they will reread <i>The Machine</i>, pages 219–221 in <i>Take a Quick Bow!</i> again today and look for specific examples of characteristics of Readers Theater in the text. • Direct students’ attention to the remaining two targets: “I can determine the meaning and pronunciation of challenging words,” and “I can explain what the text says about simple machines using details from the text.” Underline “determine the meaning” in the first target and “explain” and “using details from the text” in the second target. Remind students that these parts of the targets should be familiar to them. • Circle the words <i>pronunciation</i> and <i>simple machines</i> and tell students that these parts of the targets may seem new or unfamiliar. Ask them to share with a partner what they think each of these targets means based on what they already know. Have a few pairs share their thinking with the group. Students will be familiar with the term <i>simple machines</i> but may not be familiar with the word <i>pronunciation</i>. However, students may notice the word <i>pronunciation</i> looks similar to the word <i>pronounce</i>. If not, point this out and explain that <i>pronounce</i> means to say a word correctly aloud. So the word <i>pronunciation</i> in this learning target means figuring out how to say unfamiliar words aloud correctly.	



Work Time	Meeting Students' Needs
A. Identifying Characteristics of Readers Theater (10 minutes) - Place students with a partner who was assigned to the same part in Lesson 4. Explain to students that they will be reading <i>The Machine</i> Readers Theater more closely today. Tell them that when they read today they will read for the following purposes (post these on the board with space for directions under each): - Identifying Characteristics of Readers Theater - Tackling Challenging Vocabulary and Pronunciation - Identifying Information about Simple Machines - Tell students each time they read for a new purpose, they will annotate, or take notes on their text, in a different way. Remind them annotating a text is one strategy readers can use to help them better understand a complex text. - Have students get out <i>The Machine</i> and turn to page 219. Post the Readers Theater anchor chart (from Lesson 4). Tell students that first they will read to identify the characteristics of Readers Theater in this text. Give students more detailed directions (on the board, write these in under Step 1): - Identifying Characteristics of Readers Theater - Read page 219 and circle one example of a player, dialogue, and stage directions. Record a label above each circled example. - Display page 219 using the document camera and quickly model how to annotate the text in this way. - Give partners 5 minutes to read and annotate. Then cold call pairs to share their examples. As students share, annotate your text to identify more examples of these characteristics (players, dialogue, and stage directions) of Readers Theater. - Ask students to turn and talk with their partner about which of these words or phrases should be read aloud to the audience. Have a pair share out. Listen for students to identify that dialogue is the only part read aloud to the audience. The other aspects of the text are meant to inform the reader/performer. - Next, ask pairs to look through the text and identify their lines (assigned at the end of Lesson 4). Then give students 2 minutes to use a highlighter to highlight the dialogue they will read aloud when performing. Circulate to support students as needed.	- Consider pairing students who struggle with reading grade-level text fluently with students who are fluent readers to provide them with strong models. - For students who struggle with reading grade-level texts, consider tape recording this Readers Theater in advance so students can listen to it while they read. After listening to the text a few times, they could then record themselves reading the text so they could listen to themselves reading. This is a powerful example for them to know where they need to work on their fluency in a private way.



Work Time (continued)	Meeting Students' Needs
B. Tackling Challenging Vocabulary and Pronunciation (20 minutes) • Tell students now they will read the text and focus on the second purpose mentioned for reading this text today, identifying challenging vocabulary or words they don't know how to pronounce. Ask a student to remind the class what <i>pronounce</i> means (to say a word correctly aloud). • Ask partners to briefly discuss: * “Why do you think pronunciation is important in Readers Theater?” • Have pairs share their thinking. Students should be able to articulate that pronouncing words correctly is important since this text will be read aloud to an audience. Remind students that unlike most types of drama, the dialogue in a Readers Theater is read aloud to the audience directly from the script. Explain that in most other types of drama, dialogue would be memorized then performed by the players, but that in either case pronunciation is important if the audience is to understand the performance. • Post the Vocabulary Strategies anchor chart where students can reference it as they work. Tell students to use the strategies listed to help them determine the meaning of the words they identify. • Under the second purpose listed on the board, write the following directions. – Tackling Challenging Vocabulary and Pronunciation • Read pages 219–221. Circle any words you do not understand or do not yet know how to pronounce. • Give students 10 minutes to read with a partner and identify challenging words. Confer with students who struggle or pull a small group to work with you during this time. • Gather students together and have them share out their challenging words in groups of three or four. Some likely words that students will point out may include: <i>technology</i>, <i>ancient</i>, <i>remain</i>, <i>dollies</i>, and <i>Atlas</i>. Point out in the text where the word <i>technology</i> is defined in context on page 219 “CHILD 4: Technology is really almost anything that people make to help them do a job.” Point out where the words <i>ancient</i>, <i>dollies</i>, and <i>Atlas</i> are defined in the text using text features in the margins on pages 219, 220, and 221.	• Consider pulling struggling readers together for small group instruction during this time.



Work Time (continued)	Meeting Students' Needs
• Explain to students that the word <i>technology</i> is a word they may need to know as they read and write like a scientist in the next few weeks. Ask them if they think any of the other words are important to reading and writing about simple machines. Cold call students to share their thinking using equity sticks. • Finally, address words that students identify as “challenging to pronounce.” To help students with pronunciation of these words, review word-decoding strategies that students may be familiar with from guided reading lessons (e.g., chunking words, looking for roots, or other phonics strategies). • Note: Consider adding some of the identified words to your class Word Wall (i.e.; <i>technology</i>, <i>ancient</i>, <i>dollies</i>).	
C. Identifying Information about Simple Machines (15 minutes) • Tell students now they’ll focus on using details in the text to explain what the text says about simple machines. • Explain that as they read the text again, they will underline details that support their gist statement from Lesson 4. Remind them that the gist statement is written at the top of their copies of the play. • Give students 10 minutes to reread the text and underline details with their partner. • Ask pairs to share the details they found in the text about simple machines. After a few pairs share details, point out each place in the text that mentions and describes one of the six simple machines (pages 220–221). • Next ask students to Think-Pair-Share about why simple machines are important based on evidence from this text. Use equity sticks to call on pairs of students to share what they can conclude about the importance of simple machines. • Students should notice that the text gives many examples of how each simple machine helps do work.	



Closing and Assessment	Meeting Students' Needs
A. Preparing for Performance and Assessment (5 minutes) • Tell students they are ready to perform <i>The Machine</i> and will have an opportunity to do this as a whole class tomorrow. • Explain to students that after their close examination of this Readers Theater, they are also now ready to be assessed on the characteristics of Readers Theater. Tell students that in the next lesson they will be asked to read another Readers Theater about simple machines and answer some questions about it. Have students reflect on the following learning targets: “I can identify the characteristics of Readers Theater through examining the text <i>The Machine</i>.” • Have students discuss the meaning of the following learning targets with a partner.: “I can determine the meaning and pronunciation of challenging words” and “I can explain what the text says about simple machines using details from the text.” Afterward, have students show a thumbs-up if they feel ready, a thumb-sideways if they feel mostly ready, or a thumbs-down if they do not feel ready for the assessment. Use this information to determine whether students need clarification of a specific target before the assessment.	
B. Debrief: Revisiting our Opinions (5 minutes) • Read aloud and repost the opinion questions from Lesson 4: * “Is fiction a good teacher of facts?” * “What is your opinion and why?” • Give students 1 minute to think about whether their opinion about this question has changed, and why or why not. • Then ask them to discuss their thoughts with another round of Mix and Mingle, just as they did in Lesson 4. • After a few minutes, ask a few students to share. Listen for students to make references to the text. If they do not, prompt them to reference examples from the text that support their current opinion. (For example, a student who thinks this author wrote to teach about simple machines may reference that all six simple machines were explained in the text. A student who believes that authors of fiction mainly write to entertain their readers might say that the Readers Theater gave examples of simple machines, but not a lot of information.) • Explain to students that over the next several weeks they’ll be asked to form opinions as readers and writers and support those opinions using examples from the various texts they will read.	• To further support students consider using the following sentence frame for sharing: “I used to think _____, and my opinion has/has not changed because _____.”



Homework	Meeting Students' Needs
Practice reading your assigned lines from <i>The Machine</i>. Read the line directly before your lines silently, then read your line aloud to help prepare you for the performance. If possible, find someone at home to read aloud the parts before and after you line.	

There are no new supporting materials for this lesson.



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Unit 1: Lesson 6

Assessing Readers Theater and Performing *The Machine*



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

I can use literary terms to describe parts of a story or drama. (RL.4.5)
I can describe the differences in structure of drama and prose. (RL.4.5)
I can explain what a text says using specific details from the text. (RL.4.1)
I can use a variety of strategies to determine the meaning of words and phrases. (L.4.4)
Addressed but not assessed:
I can read fourth-grade-level texts with fluency. (RF.4.4)

Supporting Learning Targets

- I can identify the characteristics of Readers Theater in a text.
- I can explain what the text says about simple machines using details from the text.
- I can read my Readers Theater line fluently and at an appropriate volume.

Ongoing Assessment

- End of Unit 1 Assessment: Reading and Answering Questions about Readers Theater
- Tracking My Progress, End of Unit 1 recording form



Agenda	Teaching Notes
- Opening - Reviewing Learning Targets (5 minutes) - Work Time - End of Unit Assessment: Reading and Answering Questions about Readers Theater (30 minutes) - Performing Readers Theater (20 minutes) - Closing and Assessment - Self-Assessment (5 minutes) - Homework - Continue reading your independent reading book for this unit at home.	- This assessment narrowly focuses on RL.4.5 and therefore is shorter than most assessments in these modules. - Be sure students have their scripts from the text <i>The Machine</i> (pages 219–221 in the book <i>Take a Quick Bow!</i>, by Pamela Marx). - Review: Back-To-Back and Face-to-Face protocol (see Appendix).



Lesson Vocabulary	Materials
fluently, “appropriate volume”	• Readers Theater anchor chart (from Lesson 4) • <i>A Simple Solution: A Readers Theater</i> (assessment text; one per student) • End of Unit 1 Assessment: Reading and Answering Questions about Readers Theater (one per student) • <i>The Machine</i>, pages 219–221 in <i>Take a Quick Bow!</i> (one per student)

Opening	Meeting Students’ Needs
A. Reviewing Learning Targets (5 minutes) • Post the following learning targets for students: “I can identify the characteristics of Readers Theater in a text,” and “I can explain what the text says about simple machines using details from the text.” • Explain to students that this is what their assessment today will measure. If necessary, review the Readers Theater anchor chart and have students discuss with a partner their understanding of these targets to help them prepare for the upcoming assessment. • As usual, they also will self-assess on these targets by putting them into their own words and determining how close they are to meeting the targets. Remind students they have done this orally in every lesson and formally in past assessments (see Module 2). <i>Note: Be sure to take down the Readers Theater anchor chart before the class takes the assessment.</i>	• Using examples and non-examples of certain vocabulary terms (such as Readers Theater) helps students clarify the meanings of new words.
Work Time	Meeting Students’ Needs
A. End of Unit 1 Assessment: Reading and Answering Questions about Readers Theater (30 minutes) • Ask students to clear their desks and get out a pencil. Distribute copies of <i>A Simple Solution: A Readers Theater</i> and the End of Unit 1 Assessment: Reading and Answering Questions about Readers Theater. Remind students that they should refer back to this text when they answer the questions on the assessment.	• For students needing additional support producing language, consider offering a word bank of content words from the text to be used in the graphic organizer.



Work Time (continued)	Meeting Students' Needs
B. Performing Readers Theater (20 minutes) • Post the following learning target for students: “I can read my Readers Theater line fluently and at an appropriate volume.” • Circle the words <i>fluently</i> and the phrase <i>appropriate volume</i>. Explain that the root for <i>fluently</i> is fluid, which has several meanings. It can be used to describe a liquid or a smooth movement. Tell students that, in this case, the word <i>fluently</i> means reading something in a smooth clear voice. It means your words are easy for others to understand and not too fast or slow. Give students an example and non-example of the word by reading the learning target fluently and in a halting voice. Tell students that their practice reading their lines with partners and for homework has prepared them to read fluently. • Next ask students to consider the phrase <i>appropriate volume</i>. Ask them to turn to a partner and discuss what this phrase might mean. Have partners share their thinking. Students may notice the word <i>volume</i> also has multiple meanings (measurement of liquid or sound). Clarify that in this case you are referring to sound and how loud or soft words are spoken. <i>Appropriate</i>, or correct, volume in this case means that words are spoken loud enough so an audience can clearly understand what is being said, but not so loud that listeners want to cover their ears. • Consider having a few students demonstrate what reading fluently and at an appropriate volume sounds like for the class. They can do this with their assigned line. Tell students they will work toward this target today when they perform <i>The Machine</i>: Readers Theater as a class. • Have students get out the text <i>The Machine</i>, pages 219–221 in <i>Take a Quick Bow!</i> with their assigned and highlighted lines (done in Lesson 5). • Partner students with peers assigned to the same parts of the script. Tell them you would like them to practice reading their lines fluently and at an appropriate volume. Give them 5 minutes to practice. • Prepare students for their performances: Tell your class that now they will split into two groups. One group will perform while the other acts as an audience, then they will switch. 1. Divide your class into two groups. Each group should have a reader or readers for each part. 2. Remind students they will not likely give a perfect performance since this will be their first reading together, but that they should try their best to read fluently and at an appropriate volume. 3. Allow groups to perform for their classmates and celebrate their progress. As students act as an audience, ask them to take note what they think the performers did well, so that they can share this praise at the close of the lesson.	• Consider finding time for students to perform this Readers Theater a few more times for each other or an audience outside the classroom. This will give them further practice with RF.4.4 (reading grade-level text fluently).



Closing and Assessment	Meeting Students' Needs
A. Debrief (5 minutes) • Gather students together for the Back-to-Back and Face-to-Face protocol (see Appendix). • Partner students with so each student in the pair observed the their partner's performance and ask them to stand back-to-back. • Ask students to think of one thing they liked about the performance of their partner's group. • Remind students to thank their partner after receiving praise. • Signal students to turn face-to-face and share. • Call on a few volunteers to share performance praise with the whole class.	
Homework	Meeting Students' Needs
• Continue reading your independent reading book for this unit at home.	



EXPEDITIONARY
LEARNING

Grade 4: Module 3A: Unit 1: Lesson 6

Supporting Materials



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A Simple Solution: A Readers Theater
(Text for End of Unit 1 Assessment)

Players: John, Lee, Devon, Maria, and Rover

Scene

John is trying to get his dog, Rover, to climb the ladder into his tree house. John is pointing up and Rover is looking up. Lee, Devon, and Maria walk onto the stage.

John: (*pointing up*) Climb up, Rover. Come on. Give it a try.

Rover: (*sitting and shaking his head*) Woof! Woof!

Lee: What are you doing, John?

Maria: Yeah, dogs can't climb trees.

John: I really want Rover to come hang out in my tree house.

Devon: Maybe we could help.

John: How? I already tried to carry him up, but he's too heavy to lift.

Lee: What about one of those simple machine things? We learned about them before school got out.

Rover: (*turning his head and looking confused*) Woof?

Devon: Aren't there six types? Which do you think would be best for this job?

Maria: Well the wedge, screw, and wheel and axle won't help.

John: Why not?

Lee: I think it's because they are too expensive.



A Simple Solution: A Readers Theater
(Text for End of Unit 1 Assessment)

Maria: (*sighing and rolling her eyes*) Not really. It's because none of them will help us lift Rover up into the tree. Take a wedge; it is used to push things apart, like an axe cutting wood. Then there is the screw. It changes the direction of a force while it spins—it can help make drilling a hole easier. And then there is the wheel—

Lee: (*interrupting*) Yeah, yeah, yeah. And it would be too hard to roll a wheel up a tree.

Maria: Yep. A wheel and axle changes a small force into a large one, like when you ride a bike. You can go faster with less effort on a bike than you can on foot.

Lee (*looking puzzled*) That's what I said!

Rover (*looking bored, yawns, and curls up to lie down*) Ahhh.

John: Well, what type of simple machine could we use to lift Rover up into this tree house?

Devon: An inclined plane helps you move things up, like a wheelchair moves up a ramp, but you would have to build a really long ramp to reach the top of the tree.

Lee: Isn't a seesaw a type of simple machine? A seesaw moves people up and down and Rover is smaller than a person. I bet we could use that simple machine.

Maria: You mean a lever? That is a type of simple machine, but I don't think it would work. It would have to be a giant seesaw to lift Rover all the way up there.

Devon: Well, a pulley is the last one. Could that work?

John (*looks concerned*) What's a pulley? I don't want to hurt him!

Maria: A pulley is a wheel with a rope wrapped around it. Pulleys are how an elevator lifts people to the next floor.

John: Great! Anyone know how to make an elevator?

A Simple Solution: A Readers Theater
(Text for End of Unit 1 Assessment)

(Everyone shakes their heads. Rover is snoring under the tree.)

John: Well, maybe we can ask your teacher for help when summer break is over. Sounds like she knows a lot about simple machines. Until then, maybe we can just hang out with Rover down here on the ground.

(Group nods and sits down under the tree next to a sleeping Rover.)

THE END

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Written by Expeditionary Learning for Instructional Purposes

Sources:

Buffy Silverman, *Simple Machines: Forces in Action*, Do It Yourself series (New York: Heinemann, 2009); ISBN: 978-1-4329-2317-4.

Pamela Marx, *Take a Quick Bow!* (Culver City, CA: Good Year Books, 1997); ISBN: 978-1-59647-083-5 (NOTE: Only one copy required for teacher).

Aaron Shepard, *RT Tips: A Guide to Reader's Theater (or Readers Theatre)*, from *Readers on Stage* (Shepard Publications, 2003), available at <http://www.aaronsherp.com/rt/Tips.html> (last accessed 12/23/12).



End of Unit 1 Assessment:
Reading and Answering Questions about Readers Theater

Name:

Date:

Directions:

- Read the text *A Simple Solution: A Readers Theater*.
- Answer the following questions and use the text to support your answers.
- Reread the test questions and answers before turning in.

1. What type of fiction is a Readers Theater?
 - A. historical fiction
 - B. imaginary fiction
 - C. drama
 - D. narrative
2. Which of the following is the most accurate definition of Readers Theater?
 - A. A type of drama in which performers read a script aloud to an audience.
 - B. A type of drama in which performers read a script to memorize their lines.
 - C. A performance based on a book.
 - D. A theater where you can read your favorite books.
3. Which of the following is an example of **stage directions** from the text *A Simple Solution*?
 - A. *A Simple Solution: A Readers Theater*
 - B. **Players:** John, Lee, Devon, Maria, and Rover
 - C. **Devon:** Maybe we could help.
 - D. **Rover:** (*looking bored, yawns and curls up to lie down*)



End of Unit 1 Assessment:
Reading and Answering Questions about Readers Theater

4. The written text of a play or Readers Theater is called:

- A. a novel
- B. a script
- C. a dialogue
- D. a story

5. List three characteristics of Readers Theater:

1.

2.

3.

6. What is this Readers Theater mainly about? Use at least two details from the text to support your answer.

End of Unit 1 Assessment:
Reading and Answering Questions about Readers Theater

7. According to the text, why would an inclined plane be a poor choice for getting Rover into the tree house?

8. What is the meaning of the word **concerned** as it is used in the following section from the text:

Devon: Well, a pulley is the last one. Could that work?

John (*looking concerned*): What's a pulley? I don't want to hurt him!

Maria: A pulley is a wheel with a rope wrapped around it. Pulleys are how an elevator lifts people to the next floor.

John: Great! Anyone know how to make an elevator?

- A. excited
 - B. doubtful
 - C. knowing
 - D. worried
9. Which one of these details from the text best supports your answer to Question 8?
- A. "Could that work?"
 - B. "I don't want to hurt him."
 - C. "A pulley is a wheel with a rope wrapped around it."
 - D. "Great!"



End of Unit 1 Assessment:
Reading and Answering Questions about Readers Theater
(Answers, for Teacher Reference)

Standards Assessed: Questions 1–5: RL 4.5; Question 6 and 7: RL 4.1; Questions 8 and 9: L 4.4.

Directions:

- Read the text *A Simple Solution: A Readers Theater*.
- Answer the following questions and use the text to support your answers.
- Reread the test questions and answers before turning in.

1. What type of fiction is a Readers Theater?
 - A. historical fiction
 - B. imaginary fiction
 - C. **drama**
 - D. narrative
2. Which of the following is the most accurate definition of Readers Theater?
 - A. **A type of drama in which performers read a script aloud to an audience.**
 - B. A type of drama in which performers read a script to memorize their lines.
 - C. A performance based on a book.
 - D. A theater where you can read your favorite books.
3. Which of the following is an example of **stage directions** from the text *A Simple Solution*?
 - A. *A Simple Solution: A Readers Theater*
 - B. **Players:** John, Lee, Devon, Maria, and Rover
 - C. **Devon:** Maybe we could help.
 - D. **Rover:** (*looking bored, yawns and curls up to lie down*)

End of Unit 1 Assessment:
Reading and Answering Questions about Readers Theater
(Answers, for Teacher Reference)

4. The written text of a play or Readers Theater is called:

- A. a novel
- B. **a script**
- C. a dialogue
- D. a story

5. List three characteristics of Readers Theater:

[Look for student answers that contain three of the following characteristics: fiction, drama, players/characters, dialogue, stage directions, and/or script]

6. What is this Readers Theater mainly about? Use at least two details from the text to support your answer.

[Possible Answer:] It is about a boy named John and how he wants to get his dog into his tree house. His friends try to help him by thinking of simple machines that might lift the dog up. They decide that a pulley would be best, but they don't know how to make an elevator with a pulley.

7. According to the text, why would an inclined plane be a poor choice for getting Rover into the tree house?

[Possible Answer:] A ramp would have to be really long to reach the tree.



End of Unit 1 Assessment:
Reading and Answering Questions about Readers Theater
(Answers, for Teacher Assessment)

8. What is the meaning of the word **concerned** as it is used in the following section from the text:

Devon: Well, a pulley is the last one. Could that work?

John (*looking concerned*): What's a pulley? I don't want to hurt him!

Maria: A pulley is a wheel with a rope wrapped around it. Pulleys are how an elevator lifts people to the next floor.

John: Great! Anyone know how to make an elevator?

- A. excited
 - B. doubtful
 - C. knowing
 - D. **worried**
9. Which one of these details from the text best supports your answer to Question 8?
- A. "Could that work?"
 - B. **"I don't want to hurt him."**
 - C. "A pulley is a wheel with a rope wrapped around it."
 - D. "Great!"