



EXPEDITIONARY
LEARNING

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 RI.4.2 and RI.4.3.

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 RL.4.1: 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.*



<p>Mid-Unit 1 Assessment</p>	<p>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.</p>
<p>End of Unit 1 Assessment</p>	<p>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.</p>

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)	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Simple Machines Science journal (page 2, Vocabulary) 	<ul style="list-style-type: none"> Reading and Writing Like a Scientist Vocabulary Strategies
Lesson 2	Reading and Writing about Simple Machines	<ul style="list-style-type: none"> I can explain the main points in a historical, scientific, or technical text, using specific details in the text. (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) 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Simple Machines Science journal (page 4, Building Background Knowledge) 	<ul style="list-style-type: none"> Guiding Question
Lesson 3	Mid-Unit Assessment and Introduction to Science Talks	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Mid-Unit 1 Assessment: Finding the Main Idea of a Scientific Text Simple Machine Science journals (page 9) 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> • 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) 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Exit ticket 	<ul style="list-style-type: none"> • 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>	<ul style="list-style-type: none"> • 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) 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Annotated text (<i>The Machine</i>) 	<ul style="list-style-type: none"> • 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>	<ul style="list-style-type: none">• 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)	<ul style="list-style-type: none">• 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.	<ul style="list-style-type: none">• End of Unit 1 Assessment: Reading and Answering Questions about Readers Theater	<ul style="list-style-type: none">• 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).