



Interact Middle School Library
Grades: 4, 5, 6
States: Common Core State Standards

Interact Middle School Library: MYSTERIOUS MACHINE: A Simulation of Solving a Scientific Mystery While Learning About Machines

Summary: A recently deceased inventor has left behind a mystery machine using the six simple machines that together form all complex machines. To figure out what the machine is and how it can be used, student teams conduct laboratory explorations and participate in group problem-solving sessions, all the while keeping records in their Science Journal. (9781573362474-INT949)

Common Core State Standards

Language Arts

Grade: 4 - Adopted 2010

STRAND / DOMAIN	CCSS.ELA-Literacy.RI.4	Reading Standards for Informational Text
CATEGORY / CLUSTER		Integration of Knowledge and Ideas
STANDARD	CCSS.ELA-Literacy.RI.4.8	Explain how an author uses reasons and evidence to support particular points in a text.
STRAND / DOMAIN	CCSS.ELA-Literacy.RI.4	Reading Standards for Informational Text
CATEGORY / CLUSTER		Range of Reading and Level of Text Complexity
STANDARD	CCSS.ELA-Literacy.RI.4.10	By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range.
STRAND / DOMAIN	CCSS.ELA-Literacy.RF.4	Reading Standards: Foundational Skills
CATEGORY / CLUSTER		Fluency
STANDARD	CCSS.ELA-Literacy.RF.4.4	Read with sufficient accuracy and fluency to support comprehension.
EXPECTATION	CCSS.ELA-Literacy.RF.4.4a	Read on-level text with purpose and understanding.
STRAND / DOMAIN	CCSS.ELA-Literacy.W.4	Writing Standards
CATEGORY / CLUSTER		Text Types and Purposes
STANDARD	CCSS.ELA-Literacy.W.4.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
EXPECTATION	CCSS.ELA-Literacy.W.4.2b	Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
STRAND / DOMAIN	CCSS.ELA-Literacy.W.4	Writing Standards
CATEGORY / CLUSTER		Production and Distribution of Writing
STANDARD	CCSS.ELA-Literacy.W.4.4	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)

STRAND / DOMAIN	CCSS.ELA-Literacy.W.4	Writing Standards
CATEGORY / CLUSTER		Research to Build and Present Knowledge
STANDARD	CCSS.ELA-Literacy.W.4.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.
STANDARD	CCSS.ELA-Literacy.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.
STRAND / DOMAIN	CCSS.ELA-Literacy.W.4	Writing Standards
CATEGORY / CLUSTER		Research to Build and Present Knowledge
STANDARD	CCSS.ELA-Literacy.W.4.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
EXPECTATION	CCSS.ELA-Literacy.W.4.9b	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").
STRAND / DOMAIN	CCSS.ELA-Literacy.W.4	Writing Standards
CATEGORY / CLUSTER		Range of Writing
STANDARD	CCSS.ELA-Literacy.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.
STRAND / DOMAIN	CCSS.ELA-Literacy.SL.4	Speaking and Listening Standards
CATEGORY / CLUSTER		Comprehension and Collaboration
STANDARD	CCSS.ELA-Literacy.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.
EXPECTATION	CCSS.ELA-Literacy.SL.4.1a	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.
EXPECTATION	CCSS.ELA-Literacy.SL.4.1b	Follow agreed-upon rules for discussions and carry out assigned roles.
EXPECTATION	CCSS.ELA-Literacy.SL.4.1c	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.
STRAND / DOMAIN	CCSS.ELA-Literacy.SL.4	Speaking and Listening Standards
CATEGORY / CLUSTER		Presentation of Knowledge and Ideas
STANDARD	CCSS.ELA-Literacy.SL.4.6	Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation.
STRAND / DOMAIN	CCSS.ELA-Literacy.L.4	Language Standards
CATEGORY / CLUSTER		Knowledge of Language
STANDARD	CCSS.ELA-Literacy.L.4.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
EXPECTATION	CCSS.ELA-Literacy.L.4.3c	Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).

Grade: 5 - Adopted 2010

STRAND / DOMAIN	CCSS.ELA-Literacy.RI.5	Reading Standards for Informational Text
CATEGORY / CLUSTER		Integration of Knowledge and Ideas
STANDARD	CCSS.ELA-Literacy.RI.5.7	Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem

		efficiently.
STANDARD	CCSS.ELA-Literacy.RI.5.8	Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).
STANDARD	CCSS.ELA-Literacy.RI.5.9	Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
STRAND / DOMAIN	CCSS.ELA-Literacy.RI.5	Reading Standards for Informational Text
CATEGORY / CLUSTER		Range of Reading and Level of Text Complexity
STANDARD	CCSS.ELA-Literacy.RI.5.10	By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4-5 text complexity band independently and proficiently.
STRAND / DOMAIN	CCSS.ELA-Literacy.RF.5	Reading Standards: Foundational Skills
CATEGORY / CLUSTER		Fluency
STANDARD	CCSS.ELA-Literacy.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
EXPECTATION	CCSS.ELA-Literacy.RF.5.4a	Read on-level text with purpose and understanding.
STRAND / DOMAIN	CCSS.ELA-Literacy.W.5	Writing Standards
CATEGORY / CLUSTER		Text Types and Purposes
STANDARD	CCSS.ELA-Literacy.W.5.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
EXPECTATION	CCSS.ELA-Literacy.W.5.2b	Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
STRAND / DOMAIN	CCSS.ELA-Literacy.W.5	Writing Standards
CATEGORY / CLUSTER		Production and Distribution of Writing
STANDARD	CCSS.ELA-Literacy.W.5.4	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
STRAND / DOMAIN	CCSS.ELA-Literacy.W.5	Writing Standards
CATEGORY / CLUSTER		Research to Build and Present Knowledge
STANDARD	CCSS.ELA-Literacy.W.5.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
STANDARD	CCSS.ELA-Literacy.W.5.8	Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
STRAND / DOMAIN	CCSS.ELA-Literacy.W.5	Writing Standards
CATEGORY / CLUSTER		Research to Build and Present Knowledge
STANDARD	CCSS.ELA-Literacy.W.5.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
EXPECTATION	CCSS.ELA-Literacy.W.5.9b	Apply grade 5 reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]").
STRAND / DOMAIN	CCSS.ELA-Literacy.W.5	Writing Standards
CATEGORY / CLUSTER		Range of Writing
STANDARD	CCSS.ELA-Literacy.W.5.10	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.

STRAND / DOMAIN	CCSS.ELA-Literacy.SL.5	Speaking and Listening Standards
CATEGORY / CLUSTER		Comprehension and Collaboration
STANDARD	CCSS.ELA-Literacy.SL.5.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
EXPECTATION	CCSS.ELA-Literacy.SL.5.1a	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.
EXPECTATION	CCSS.ELA-Literacy.SL.5.1b	Follow agreed-upon rules for discussions and carry out assigned roles.
EXPECTATION	CCSS.ELA-Literacy.SL.5.1c	Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.

Grade: 6 - Adopted 2010

STRAND / DOMAIN	CCSS.ELA-Literacy.RI.6	Reading Standards for Informational Text
CATEGORY / CLUSTER		Integration of Knowledge and Ideas
STANDARD	CCSS.ELA-Literacy.RI.6.7	Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
STRAND / DOMAIN	CCSS.ELA-Literacy.W.6	Writing Standards
CATEGORY / CLUSTER		Text Types and Purposes
STANDARD	CCSS.ELA-Literacy.W.6.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
EXPECTATION	CCSS.ELA-Literacy.W.6.2b	Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
STRAND / DOMAIN	CCSS.ELA-Literacy.W.6	Writing Standards
CATEGORY / CLUSTER		Production and Distribution of Writing
STANDARD	CCSS.ELA-Literacy.W.6.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
STRAND / DOMAIN	CCSS.ELA-Literacy.W.6	Writing Standards
CATEGORY / CLUSTER		Research to Build and Present Knowledge
STANDARD	CCSS.ELA-Literacy.W.6.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
STANDARD	CCSS.ELA-Literacy.W.6.8	Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.
STRAND / DOMAIN	CCSS.ELA-Literacy.W.6	Writing Standards
CATEGORY / CLUSTER		Range of Writing
STANDARD	CCSS.ELA-Literacy.W.6.10	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.
STRAND / DOMAIN	CCSS.ELA-Literacy.SL.6	Speaking and Listening Standards
CATEGORY / CLUSTER		Comprehension and Collaboration
STANDARD	CCSS.ELA-Literacy.SL.6.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.

EXPECTATION	CCSS.ELA-Literacy.SL.6.1a	Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
EXPECTATION	CCSS.ELA-Literacy.SL.6.1b	Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
EXPECTATION	CCSS.ELA-Literacy.SL.6.1c	Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
STRAND / DOMAIN	CCSS.ELA-Literacy.SL.6	Speaking and Listening Standards
CATEGORY / CLUSTER		Presentation of Knowledge and Ideas
STANDARD	CCSS.ELA-Literacy.SL.6.6	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

Science

STRAND / DOMAIN	CCSS.ELA-Literacy.RST.6-8	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Key Ideas and Details
STANDARD	CCSS.ELA-Literacy.RST.6-8.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
STRAND / DOMAIN	CCSS.ELA-Literacy.RST.6-8	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Craft and Structure
STANDARD	CCSS.ELA-Literacy.RST.6-8.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.
STRAND / DOMAIN	CCSS.ELA-Literacy.RST.6-8	Reading Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Integration of Knowledge and Ideas
STANDARD	CCSS.ELA-Literacy.RST.6-8.7	Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
STRAND / DOMAIN	CCSS.ELA-Literacy.WHST.6-8	Writing Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Text Types and Purposes
STANDARD	CCSS.ELA-Literacy.WHST.6-8.1	Write arguments focused on discipline-specific content.
EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.1a	Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.1c	Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.1d	Establish and maintain a formal style.
EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.1e	Provide a concluding statement or section that follows from and supports the argument presented.
STRAND / DOMAIN	CCSS.ELA-Literacy.WHST.6-8	Writing Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Text Types and Purposes
STANDARD	CCSS.ELA-Literacy.WHST.6-8.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.2a	Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.2b	Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.2c	Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.2d	Use precise language and domain-specific vocabulary to inform about or explain the topic.
EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.2e	Establish and maintain a formal style and objective tone.
EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.2f	Provide a concluding statement or section that follows from and supports the information or explanation presented.
STRAND / DOMAIN	CCSS.ELA-Literacy.WHST.6-8	Writing Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Text Types and Purposes
STANDARD	CCSS.ELA-Literacy.WHST.6-8.3	(See note; not applicable as a separate requirement)
EXPECTATION	CCSS.ELA-Literacy.WHST.6-8.3a	Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.
STRAND / DOMAIN	CCSS.ELA-Literacy.WHST.6-8	Writing Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Production and Distribution of Writing
STANDARD	CCSS.ELA-Literacy.WHST.6-8.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
STANDARD	CCSS.ELA-Literacy.WHST.6-8.5	With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
STANDARD	CCSS.ELA-Literacy.WHST.6-8.6	Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.
STRAND / DOMAIN	CCSS.ELA-Literacy.WHST.6-8	Writing Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Research to Build and Present Knowledge
STANDARD	CCSS.ELA-Literacy.WHST.6-8.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
STRAND / DOMAIN	CCSS.ELA-Literacy.WHST.6-8	Writing Standards for Literacy in Science and Technical Subjects
CATEGORY / CLUSTER		Range of Writing
STANDARD	CCSS.ELA-Literacy.WHST.6-8.10	Write routinely over extended time frames (time for 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.