Connections to Standards in PLTW Gateway

PLTW curriculum is designed to empower students to thrive in an evolving world. As a part of the design process when developing and updating our curriculum, we focus on connections to a variety of standards. PLTW Science of Technology connects to standards in the following:

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Common Core College and Career Readiness Anchor Standards

Reading

Key Ideas and Details

CCSS.ELA-LITERACY.CCRA.R.1
Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

☐ A.1 ☐ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☐ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☑ 3.4 ☑ 3.5 ☐ 3.6 ☐ 3.7

CCSS.ELA-LITERACY.CCRA.R.2
Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☑ B.1 ☑ B.2 ☐ B.3
☐ 1.1 ☐ 1.2 ☐ 1.3 ☑ 2.1 ☑ 2.2 ☐ 2.2a ☐ 2.3a and 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☑ 3.5 ☐ 3.6 ☐ 3.7

CCSS.ELA-LITERACY.CCRA.R.10
Read and comprehend complex literary and informational texts independently and proficiently.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7

Writing

Text Types and Purposes

CCSS.ELA-LITERACY.CCRA.W.2
Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7

CCSS.ELA-LITERACY.CCRA.W.4
Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7
Common Core College and Career Readiness Anchor Standards

CCSS.ELA-LITERACY.CCRA.W.5
Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3 and 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

CCSS.ELA-LITERACY.CCRA.W.7
Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3 and 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

CCSS.ELA-LITERACY.CCRA.W.8
Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3 and 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

CCSS.ELA-LITERACY.CCRA.W.9
Draw evidence from literary or informational texts to support analysis, reflection, and research.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3 and 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

Speaking and Listening

Comprehension and Collaboration

CCSS.ELA-LITERACY.CCRA.SL.1
Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others’ ideas and expressing their own clearly and persuasively.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3 and 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

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CCSS.ELA-LITERACY.CCRA.SL.2
Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

- A.1 ✔ A.2 ✔ A.3 ✔ A.4 ✔ A.5 ✔ B.1 ✔ B.2 ✔ B.3
- 1.1 ✔ 1.2 ✔ 1.3 ✔ 2.1 ✔ 2.2 ✔ 2.2a ✔ 2.3a nd 2.3b
- 3.1 ✔ 3.2 ✔ 3.3 ✔ 3.4 ✔ 3.5 ✔ 3.6 ✔ 3.7

CCSS.ELA-LITERACY.CCRA.SL.4
Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

- A.1 ✔ A.2 ✔ A.3 ✔ A.4 ✔ A.5 ✔ B.1 ✔ B.2 ✔ B.3
- 1.1 ✔ 1.2 ✔ 1.3 ✔ 2.1 ✔ 2.2 ✔ 2.2a ✔ 2.3a nd 2.3b
- 3.1 ✔ 3.2 ✔ 3.3 ✔ 3.4 ✔ 3.5 ✔ 3.6 ✔ 3.7

CCSS.ELA-LITERACY.CCRA.SL.5
Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

- A.1 □ A.2 □ A.3 □ A.4 □ A.5 □ B.1 □ B.2 ✔ B.3
- 1.1 □ 1.2 ✔ 1.3 ✔ 2.1 □ 2.2 □ 2.2a □ 2.3a nd 2.3b
- 3.1 □ 3.2 □ 3.3 □ 3.4 ✔ 3.5 □ 3.6 ✔ 3.7

CCSS.ELA-LITERACY.CCRA.SL.6
Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

- A.1 ✔ A.2 ✔ A.3 ✔ A.4 ✔ A.5 □ B.1 □ B.2 ✔ B.3
- 1.1 ✔ 1.2 ✔ 1.3 ✔ 2.1 ✔ 2.2 ✔ 2.2a ✔ 2.3a nd 2.3b
- 3.1 ✔ 3.2 ✔ 3.3 ✔ 3.4 ✔ 3.5 ✔ 3.6 ✔ 3.7

Language

Conventions of Standard English

CCSS.ELA-LITERACY.CCRA.L.1
Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

- A.1 ✔ A.2 ✔ A.3 ✔ A.4 ✔ A.5 □ B.1 □ B.2 ✔ B.3
- 1.1 □ 1.2 □ 1.3 □ 2.1 □ 2.2 □ 2.2a □ 2.3a nd 2.3b
- 3.1 □ 3.2 □ 3.3 □ 3.4 □ 3.5 □ 3.6 □ 3.7
Common Core College and Career Readiness Anchor Standards

CCSS.ELA-LITERACY.CCRA.L.2
Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- □ A.1 □ A.2 □ A.3 □ A.4 □ A.5 □ B.1 □ B.2 □ B.3
- □ 1.1 □ 1.2 □ 1.3 □ 2.1 □ 2.2 □ 2.2a □ 2.3 and 2.3b
- □ 3.1 □ 3.2 □ 3.3 □ 3.4 □ 3.5 □ 3.6 □ 3.7

CCSS.ELA-LITERACY.CCRA.L.4
Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

- □ A.1 □ A.2 □ A.3 □ A.4 □ A.5 □ B.1 □ B.2 □ B.3
- □ 1.1 □ 1.2 □ 1.3 □ 2.1 □ 2.2 □ 2.2a □ 2.3 and 2.3b
- □ 3.1 □ 3.2 □ 3.3 □ 3.4 □ 3.5 □ 3.6 □ 3.7

CCSS.ELA-LITERACY.CCRA.L.5
Demonstrate understanding of word relationships and nuances in word meanings.

- □ A.1 □ A.2 □ A.3 □ A.4 □ A.5 □ B.1 □ B.2 □ B.3
- □ 1.1 □ 1.2 □ 1.3 □ 2.1 □ 2.2 □ 2.2a □ 2.3 and 2.3b
- □ 3.1 □ 3.2 □ 3.3 □ 3.4 □ 3.5 □ 3.6 □ 3.7

CCSS.ELA-LITERACY.CCRA.L.6
Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

- □ A.1 □ A.2 □ A.3 □ A.4 □ A.5 □ B.1 □ B.2 □ B.3
- □ 1.1 □ 1.2 □ 1.3 □ 2.1 □ 2.2 □ 2.2a □ 2.3 and 2.3b
- □ 3.1 □ 3.2 □ 3.3 □ 3.4 □ 3.5 □ 3.6 □ 3.7

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Key Ideas and Details

CCSS.ELA-LITERACY.RST.6-8.1
Cite specific textual evidence to support analysis of science and technical texts.

☐ A.1  ☐ A.2  ☑ A.3  ☐ A.4  ☑ A.5  ☐ B.1  ☐ B.2  ☐ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a nd 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

CCSS.ELA-LITERACY.RST.6-8.2
Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

☑ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☑ B.1  ☑ B.2  ☐ B.3
☑ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a nd 2.3b
☐ 3.1  ☐ 3.2  ☑ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

CCSS.ELA-LITERACY.RST.6-8.3
Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☐ B.3
☑ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a nd 2.3b
☐ 3.1  ☐ 3.2  ☑ 3.3  ☑ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

Craft and Structure

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.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☐ B.3
☑ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a nd 2.3b
☑ 3.1  ☑ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☑ 3.6  ☑ 3.7

Integration of Knowledge and Ideas

CCSS.ELA-LITERACY.RST.6-8.8
Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☐ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a nd 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7
Common Core State Standards for English Language Arts 6–8 Literacy Standards for History/Social Studies, Science, and Technical Subjects

Range of Reading and Level of Text Complexity

CCSS.ELA-LITERACY.RST.6-8.10
By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.

- A.1 ✔ A.2 ✔ A.3 ✔ A.4 ✔ A.5 ✔ B.1 ✔ B.2 ✔ B.3
- 1.1 ✔ 1.2 ✔ 1.3 ✔ 2.1 ✔ 2.2 ✔ 2.2a ✔ 2.3a nd 2.3b
- 3.1 □ 3.2 ✔ 3.3 ✔ 3.4 ✔ 3.5 ✔ 3.6 □ 3.7

Writing in History/social Studies, Science, and Technical Subjects

Text Types and Purposes

CCSS.ELA-LITERACY.WHST.6-8.2
Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.

- A.1 □ A.2 □ A.3 □ A.4 □ A.5 □ B.1 □ B.2 ✔ B.3
- 1.1 □ 1.2 ✔ 1.3 □ 2.1 □ 2.2 □ 2.2a □ 2.3a nd 2.3b
- 3.1 □ 3.2 □ 3.3 □ 3.4 □ 3.5 □ 3.6 □ 3.7

CCSS.ELA-LITERACY.WHST.6-8.2.a
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.

- A.1 □ A.2 □ A.3 □ A.4 □ A.5 □ B.1 □ B.2 ✔ B.3
- 1.1 □ 1.2 □ 1.3 □ 2.1 □ 2.2 □ 2.2a □ 2.3a nd 2.3b
- 3.1 □ 3.2 □ 3.3 □ 3.4 □ 3.5 □ 3.6 □ 3.7

CCSS.ELA-LITERACY.WHST.6-8.2.b
Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.

- A.1 ✔ A.2 ✔ A.3 ✔ A.4 ✔ A.5 ✔ B.1 □ B.2 □ B.3
- 1.1 ✔ 1.2 ✔ 1.3 ✔ 2.1 □ 2.2 □ 2.2a □ 2.3a nd 2.3b
- 3.1 ✔ 3.2 □ 3.3 □ 3.4 □ 3.5 □ 3.6 □ 3.7

CCSS.ELA-LITERACY.WHST.6-8.2.d
Use precise language and domain-specific vocabulary to inform about or explain the topic.

- A.1 ✔ A.2 ✔ A.3 ✔ A.4 ✔ A.5 ✔ B.1 ✔ B.2 ✔ B.3
- 1.1 ✔ 1.2 ✔ 1.3 ✔ 2.1 ✔ 2.2 ✔ 2.2a ✔ 2.3a nd 2.3b
- 3.1 ✔ 3.2 ✔ 3.3 ✔ 3.4 ✔ 3.5 ✔ 3.6 ✔ 3.7

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Production and Distribution of Writing

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.

- 1.1 1.2 1.3 2.1 2.2 2.2a 2.3a nd 2.3b
- 3.1 3.2 3.3 3.4 3.5 3.6 3.7

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.

Research to Build and Present Knowledge

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.

- 1.1 1.2 1.3 2.1 2.2 2.2a 2.3a nd 2.3b
- 3.1 3.2 3.3 3.4 3.5 3.6 3.7

CCSS.ELA-LITERACY.WHST.6-8.8
Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

- 1.1 1.2 1.3 2.1 2.2 2.2a 2.3a nd 2.3b
- 3.1 3.2 3.3 3.4 3.5 3.6 3.7

CCSS.ELA-LITERACY.WHST.6-8.9
Draw evidence from informational texts to support analysis, reflection, and research.

- 1.1 1.2 1.3 2.1 2.2 2.2a 2.3a nd 2.3b
- 3.1 3.2 3.3 3.4 3.5 3.6 3.7
Common Core State Standards for English Language Arts 6th Grade

Reading Literature

Key Ideas and Details

CCSS.ELA-LITERACY.RL.6.1
Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☐ B.2 ☐ B.3
☐ 1.1 ☐ 1.2 ☐ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7

Reading Informational

Key Ideas and Details

CCSS.ELA-LITERACY.RI.6.1
Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☐ B.2 ☐ B.3
☐ 1.1 ☐ 1.2 ☐ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7

CCSS.ELA-LITERACY.RI.6.2
Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☑ B.1 ☑ B.2 ☐ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a 2.3b
☐ 3.1 ☐ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☐ 3.6 ☐ 3.7

Craft and Structure

CCSS.ELA-LITERACY.RI.6.4
Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☐ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7

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# Common Core State Standards for English Language Arts 6th Grade

## Integration of Knowledge and Ideas

<table>
<thead>
<tr>
<th>Standard</th>
<th>A.1</th>
<th>A.2</th>
<th>A.3</th>
<th>A.4</th>
<th>A.5</th>
<th>B.1</th>
<th>B.2</th>
<th>B.3</th>
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<td>CCSS.ELA-LITERACY.RI.6.7</td>
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</tbody>
</table>

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.

## Writing

### Text Types and Purposes

<table>
<thead>
<tr>
<th>Standard</th>
<th>A.1</th>
<th>A.2</th>
<th>A.3</th>
<th>A.4</th>
<th>A.5</th>
<th>B.1</th>
<th>B.2</th>
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Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.

<table>
<thead>
<tr>
<th>Standard</th>
<th>A.1</th>
<th>A.2</th>
<th>A.3</th>
<th>A.4</th>
<th>A.5</th>
<th>B.1</th>
<th>B.2</th>
<th>B.3</th>
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<td>☒</td>
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</tbody>
</table>

Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

<table>
<thead>
<tr>
<th>Standard</th>
<th>A.1</th>
<th>A.2</th>
<th>A.3</th>
<th>A.4</th>
<th>A.5</th>
<th>B.1</th>
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</tbody>
</table>

Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.

<table>
<thead>
<tr>
<th>Standard</th>
<th>A.1</th>
<th>A.2</th>
<th>A.3</th>
<th>A.4</th>
<th>A.5</th>
<th>B.1</th>
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Use precise language and domain-specific vocabulary to inform about or explain the topic.

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<tr>
<th>Standard</th>
<th>A.1</th>
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Science of Technology Standards Connection Page 11 of 42
Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.

☐ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☑ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a  nd 2.3b
☐ 3.1  ☑ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☑ 3.6  ☑ 3.7

Production and Distribution of Writing

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.)

☐ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☑ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a  nd 2.3b
☑ 3.1  ☑ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☑ 3.6  ☑ 3.7

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.

☐ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☐ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a  nd 2.3b
☐ 3.1  ☑ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☑ 3.6  ☑ 3.7

Research to Build and Present Knowledge

CCSS.ELA-LITERACY.W.6.7
Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.

☐ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☐ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a  nd 2.3b
☐ 3.1  ☑ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☑ 3.6  ☑ 3.7

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.

☐ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☐ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a  nd 2.3b
☐ 3.1  ☑ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☑ 3.6  ☑ 3.7
### CCSS.ELA-LITERACY.W.6.9
Draw evidence from literary or informational texts to support analysis, reflection, and research.

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### Speaking and Listening

#### Comprehension and Collaboration

**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.

<table>
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<tr>
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**CCSS.ELA-LITERACY.SL.6.1.a**
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.

<table>
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<th>A.1</th>
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**CCSS.ELA-LITERACY.SL.6.1.b**
Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.

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<th>A.1</th>
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**CCSS.ELA-LITERACY.SL.6.1.c**
Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.

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<tr>
<th></th>
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<th>A.3</th>
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<td>2.3a</td>
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Common Core State Standards for English Language Arts 6th Grade

CCSS.ELA-LITERACY.SL.6.1.d
Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ✓ B.1  ✓ B.2  ✓ B.3  
☐ 1.1  ☐ 1.2  ✓ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b  
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

CCSS.ELA-LITERACY.SL.6.2
Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.

☐ A.1  ✓ A.2  ✓ A.3  ✓ A.4  ✓ A.5  ✓ B.1  ✓ B.2  ☐ B.3  
✓ 1.1  ✓ 1.2  ✓ 1.3  ✓ 2.1  ✓ 2.2  ✓ 2.2a  ✓ 2.3a and 2.3b  
✓ 3.1  ✓ 3.2  ✓ 3.3  ✓ 3.4  ✓ 3.5  ✓ 3.6  ✓ 3.7

Presentation of Knowledge and Ideas

CCSS.ELA-LITERACY.SL.6.4
Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

☐ A.1  ✓ A.2  ✓ A.3  ✓ A.4  ✓ A.5  ☐ B.1  ☐ B.2  ✓ B.3  
☐ 1.1  ☐ 1.2  ✓ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b  
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

CCSS.ELA-LITERACY.SL.6.5
Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ✓ B.3  
☐ 1.1  ☐ 1.2  ✓ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b  
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ✓ 3.7

CCSS.ELA-LITERACY.SL.6.6
Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

☐ A.1  ✓ A.2  ✓ A.3  ✓ A.4  ✓ A.5  ☐ B.1  ☐ B.2  ✓ B.3  
☐ 1.1  ☐ 1.2  ✓ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b  
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ✓ 3.5  ☐ 3.6  ✓ 3.7

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Common Core State Standards for English Language Arts 6th Grade

Language

Conventions of Standard English

CCSS.ELA-LITERACY.L.6.1
Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

☐ A.1  ✔ A.2  ✔ A.3  ✔ A.4  ✔ A.5  ☐ B.1  ☐ B.2  ✔ B.3

☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  and 2.3b

☐ 3.1  ☐ 3.2 ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

CCSS.ELA-LITERACY.L.6.2
Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

☐ A.1  ✔ A.2  ✔ A.3  ✔ A.4  ✔ A.5  ☐ B.1  ☐ B.2  ✔ B.3

☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  and 2.3b

☐ 3.1  ☐ 3.2 ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

Knowledge of Language

CCSS.ELA-LITERACY.L.6.3
Use knowledge of language and its conventions when writing, speaking, reading, or listening.

☐ A.1  ✔ A.2  ✔ A.3  ✔ A.4  ✔ A.5  ☐ B.1  ☐ B.2  ✔ B.3

☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  and 2.3b

☐ 3.1  ☐ 3.2 ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

Vocabulary Acquisition and Use

CCSS.ELA-LITERACY.L.6.4
Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☐ B.3

✔ 1.1  ✔ 1.2  ✔ 1.3  ✔ 2.1  ✔ 2.2  ✔ 2.2a  ✔ 2.3a  and 2.3b

✔ 3.1  ✔ 3.2  ✔ 3.3  ✔ 3.4  ✔ 3.5  ✔ 3.6  ✔ 3.7

CCSS.ELA-LITERACY.L.6.6
Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

☐ A.1  ✔ A.2  ✔ A.3  ✔ A.4  ✔ A.5  ✔ B.1  ✔ B.2  ✔ B.3

✔ 1.1  ✔ 1.2  ✔ 1.3  ✔ 2.1  ✔ 2.2  ✔ 2.2a  ✔ 2.3a  and 2.3b

✔ 3.1  ✔ 3.2  ✔ 3.3  ✔ 3.4  ✔ 3.5  ✔ 3.6  ✔ 3.7
Common Core State Standards for English Language Arts 7th Grade

Writing

Text Types and Purposes

CCSS.ELA-LITERACY.W.7.1.b
Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☑ B.1 ☑ B.2 ☐ B.3
☐ 1.1 ☐ 1.2 ☐ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a and 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7

CCSS.ELA-LITERACY.W.7.2
Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☑ B.1 ☑ B.2 ☐ B.3
☐ 1.1 ☐ 1.2 ☐ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a and 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7

CCSS.ELA-LITERACY.W.7.2.d
Use precise language and domain-specific vocabulary to inform about or explain the topic.

☑ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7

CCSS.ELA-LITERACY.W.7.3.d
Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7

Production and Distribution of Writing

CCSS.ELA-LITERACY.W.7.4
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 7.w.1–3)

☑ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7

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CCSS.ELA-LITERACY.W.7.5
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.

☐ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☐ B.1  ☐ B.2  ☐ B.3
☐ 1.1  ☑ 1.2  ☑ 1.3  ☐ 2.1  ☑ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☑ 3.5  ☐ 3.6  ☑ 3.7

Research to Build and Present Knowledge

CCSS.ELA-LITERACY.W.7.8
Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

☐ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☑ B.1  ☑ B.2  ☐ B.3
☐ 1.1  ☑ 1.2  ☐ 1.3  ☐ 2.1  ☑ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☑ 3.7

Speaking and Listening

Comprehension and Collaboration

CCSS.ELA-LITERACY.SL.7.1
Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others’ ideas and expressing their own clearly.

☐ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☑ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a and 2.3b
☑ 3.1  ☑ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☑ 3.6  ☑ 3.7

CCSS.ELA-LITERACY.SL.7.1.a
Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☑ B.3
☐ 1.1  ☐ 1.2  ☑ 1.3  ☐ 2.1  ☑ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☑ 3.5  ☐ 3.6  ☑ 3.7

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CCSS.ELA-LITERACY.SL.7.1.b
Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☐ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  nd 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☑ 3.5  ☐ 3.6  ☑ 3.7

CCSS.ELA-LITERACY.SL.7.1.c
Pose questions that elicit elaboration and respond to others’ questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☐ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  nd 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☑ 3.5  ☐ 3.6  ☑ 3.7

CCSS.ELA-LITERACY.SL.7.1.d
Acknowledge new information expressed by others and, when warranted, modify their own views.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☐ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  nd 2.3b
☑ 3.1  ☐ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☐ 3.6  ☑ 3.7

CCSS.ELA-LITERACY.SL.7.2
Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☑ B.1  ☑ B.2  ☐ B.3
☐ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  nd 2.3b
☐ 3.1  ☐ 3.2  ☑ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

Presentation of Knowledge and Ideas

CCSS.ELA-LITERACY.SL.7.5
Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☐ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  nd 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☑ 3.5  ☐ 3.6  ☑ 3.7
CCSS.ELA-LITERACY.SL.7.6
Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

Language

Conventions of Standard English

CCSS.ELA-LITERACY.L.7.1
Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

CCSS.ELA-LITERACY.L.7.2
Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

CCSS.ELA-LITERACY.L.7.2.b
Spell correctly.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

Knowledge of Language

CCSS.ELA-LITERACY.L.7.3
Use knowledge of language and its conventions when writing, speaking, reading, or listening.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7
Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a and 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  3.7

Vocabulary Acquisition and Use

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a and 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  3.7

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a and 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  3.7
Writing

Text Types and Purposes

CCSS.ELA-LITERACY.W.8.2
Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☑ B.1  ☑ B.2  ☐ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☑ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a nd 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

CCSS.ELA-LITERACY.W.8.2.b
Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☑ B.1  ☑ B.2  ☐ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☑ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a nd 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

CCSS.ELA-LITERACY.W.8.2.d
Use precise language and domain-specific vocabulary to inform about or explain the topic.

☑ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☑ B.1  ☑ B.2  ☐ B.3
☐ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a nd 2.3b
☑ 3.1  ☑ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☑ 3.6  ☑ 3.7

CCSS.ELA-LITERACY.W.8.3.d
Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☑ B.3
☑ 1.1  ☑ 1.2  ☑ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☑ 2.3a nd 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☑ 3.5  ☐ 3.6  ☑ 3.7

Production and Distribution of Writing

CCSS.ELA-LITERACY.W.8.4
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.)

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☑ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a nd 2.3b
☑ 3.1  ☑ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☑ 3.6  ☑ 3.7
Common Core State Standards for English Language Arts 8th Grade

CCSS.ELA-LITERACY.W.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.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☐ B.1 ☐ B.2 ☑ B.3
☐ 1.1 ☐ 1.2 ☐ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a and 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7

CCSS.ELA-LITERACY.W.8.6
Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☐ B.1 ☐ B.2 ☑ B.3
☐ 1.1 ☐ 1.2 ☐ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a and 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7

Research to Build and Present Knowledge

CCSS.ELA-LITERACY.W.8.8
Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☑ B.1 ☑ B.2 ☐ B.3
☐ 1.1 ☐ 1.2 ☐ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a and 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7

CCSS.ELA-LITERACY.W.8.9
Draw evidence from literary or informational texts to support analysis, reflection, and research.

☑ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☐ 3.1 ☐ 3.2 ☑ 3.3 ☑ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7
Speaking and Listening

Comprehension and Collaboration

CCSS.ELA-LITERACY.SL.8.1
Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others’ ideas and expressing their own clearly.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7

CCSS.ELA-LITERACY.SL.8.1.a
Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7

CCSS.ELA-LITERACY.SL.8.1.b
Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7

CCSS.ELA-LITERACY.SL.8.1.c
Pose questions that connect the ideas of several speakers and respond to others’ questions and comments with relevant evidence, observations, and ideas.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7

CCSS.ELA-LITERACY.SL.8.1.d
Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.

☐ A.1 ☑ A.2 ☑ A.3 ☑ A.4 ☑ A.5 ☑ B.1 ☑ B.2 ☑ B.3
☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 2.1 ☑ 2.2 ☑ 2.2a ☑ 2.3a and 2.3b
☑ 3.1 ☑ 3.2 ☑ 3.3 ☑ 3.4 ☑ 3.5 ☑ 3.6 ☑ 3.7
Presentation of Knowledge and Ideas

CCSS.ELA-LITERACY.SL.8.5
Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a nd 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  B.3

CCSS.ELA-LITERACY.SL.8.6
Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a nd 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  3.7

Language

Conventions of Standard English

CCSS.ELA-LITERACY.L.8.1
Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a nd 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  3.7

CCSS.ELA-LITERACY.L.8.2
Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a nd 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  3.7

CCSS.ELA-LITERACY.L.8.2.c
Spell correctly.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a nd 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  3.7
Common Core State Standards for English Language Arts 8th Grade

Knowledge of Language

CCSS.ELA-LITERACY.L.8.3
Use knowledge of language and its conventions when writing, speaking, reading, or listening.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☑ B.1  ☑ B.2  ☑ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☑ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a nd 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

Vocabulary Acquisition and Use

CCSS.ELA-LITERACY.L.8.5.b
Use the relationship between particular words to better understand each of the words.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☑ B.1  ☑ B.2  ☐ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☑ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a nd 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

CCSS.ELA-LITERACY.L.8.6
Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

☐ A.1  ☑ A.2  ☑ A.3  ☑ A.4  ☑ A.5  ☑ B.1  ☑ B.2  ☐ B.3
☑ 1.1  ☑ 1.2  ☑ 1.3  ☑ 2.1  ☑ 2.2  ☑ 2.2a  ☑ 2.3a nd 2.3b
☑ 3.1  ☑ 3.2  ☑ 3.3  ☑ 3.4  ☑ 3.5  ☑ 3.6  ☑ 3.7

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## Knowledge Constructor

3a
Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

## Innovative Designer

4a
Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

4c
Students develop, test and refine prototypes as part of a cyclical design process.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

## Computational Thinker

5c
Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7
6c
Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7

7c
Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

- A.1
- A.2
- A.3
- A.4
- A.5
- B.1
- B.2
- B.3
- 1.1
- 1.2
- 1.3
- 2.1
- 2.2
- 2.2a
- 2.3a
- 2.3b
- 3.1
- 3.2
- 3.3
- 3.4
- 3.5
- 3.6
- 3.7
Standards for Technological and Engineering Literacy

### Core Concepts of Technology and Engineering

**STEL-2R**

Compare how different technologies involve different sets of processes.

<table>
<thead>
<tr>
<th></th>
<th>A.1</th>
<th>A.2</th>
<th>A.3</th>
<th>A.4</th>
<th>A.5</th>
<th>B.1</th>
<th>B.2</th>
<th>B.3</th>
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<td>2.3a</td>
<td>2.3b</td>
</tr>
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<td>3.2</td>
<td>3.3</td>
<td>3.4</td>
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<td>3.6</td>
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<td></td>
</tr>
</tbody>
</table>

**STEL-2S**

Defend decisions related to a design problem.

<table>
<thead>
<tr>
<th></th>
<th>A.1</th>
<th>A.2</th>
<th>A.3</th>
<th>A.4</th>
<th>A.5</th>
<th>B.1</th>
<th>B.2</th>
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<td>2.3a</td>
<td>2.3b</td>
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<td>3.1</td>
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<td>3.5</td>
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<td>3.7</td>
<td></td>
</tr>
</tbody>
</table>

### Integration of Knowledge, Technologies, and Practices

**STEL-3E**

Analyze how different technological systems often interact with economic, environmental, and social systems.

<table>
<thead>
<tr>
<th></th>
<th>A.1</th>
<th>A.2</th>
<th>A.3</th>
<th>A.4</th>
<th>A.5</th>
<th>B.1</th>
<th>B.2</th>
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<td>2.2</td>
<td>2.2a</td>
<td>2.3a</td>
<td>2.3b</td>
</tr>
<tr>
<td>2</td>
<td>3.1</td>
<td>3.2</td>
<td>3.3</td>
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<td>3.5</td>
<td>3.6</td>
<td>3.7</td>
<td></td>
</tr>
</tbody>
</table>

**STEL-3F**

Apply a product, system or process developed for one setting to another setting.

<table>
<thead>
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**STEL-3G**

Explain how knowledge gained from other content areas affects the development of technological products and systems.

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Impacts of Technology

STEL-4L
Analyze how the creation and use of technologies consumes renewable and non-renewable resources and creates waste.

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☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

STEL-4N
Analyze examples of technologies that have changed the way people think, interact, and communicate.

☐ A.1  ☐ A.2  ☐ A.3  ☑ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☐ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☑ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

Influence of Society on Technological Development

STEL-5F
Analyze how an invention or innovation was influenced by its historical context.

☐ A.1  ☐ A.2  ☐ A.3  ☑ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☐ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

Design in Technology and Engineering Education

STEL-7Q
Apply the technology and engineering design process.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☑ B.3
☐ 1.1  ☐ 1.2  ☑ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

STEL-7R
Refine design solutions to address criteria and constraints.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☑ B.3
☐ 1.1  ☐ 1.2  ☑ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7
Standards for Technological and Engineering Literacy

STEL-7S
Create solutions to problems by identifying and applying human factors in design.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☐ B.3
☐ 1.1  ☐ 1.2  ☑ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

STEL-7T
Assess design quality based upon established principles and elements of design.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☐ B.3
☐ 1.1  ☐ 1.2  ☑ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

STEL-7U
Evaluate the strengths and weaknesses of different design solutions.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☑ B.3
☐ 1.1  ☐ 1.2  ☑ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

STEL-7V
Improve essential skills necessary to successfully design.

☑ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☑ B.3
☑ 1.1  ☑ 1.2  ☑ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a and 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

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Collaborating Around Computing

P2.CAC.1
Cultivate working relationships with individuals possessing diverse perspectives, skills, and personalities.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☑ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  ☐ 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

P2.CAC.2
Create team norms, expectations, and equitable workloads to increase efficiency and effectiveness.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☑ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  ☐ 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7

P2.CAC.3
Solicit and incorporate feedback from, and provide constructive feedback to, team members and other stakeholders.

☐ A.1  ☐ A.2  ☐ A.3  ☐ A.4  ☐ A.5  ☐ B.1  ☐ B.2  ☑ B.3
☐ 1.1  ☐ 1.2  ☐ 1.3  ☐ 2.1  ☐ 2.2  ☐ 2.2a  ☐ 2.3a  ☐ 2.3b
☐ 3.1  ☐ 3.2  ☐ 3.3  ☐ 3.4  ☐ 3.5  ☐ 3.6  ☐ 3.7
Earth and Human Activity

NGSS.MS-ESS3-3
Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☐ B.1 ☐ B.2 ☐ B.3
☐ 1.1 ☐ 1.2 ☑ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a nd 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7

Engineering Design

NGSS.MS-ETS1-1
Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☐ B.1 ☐ B.2 ☑ B.3
☐ 1.1 ☐ 1.2 ☑ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a nd 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7

NGSS.MS-ETS1-2
Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☐ B.1 ☐ B.2 ☑ B.3
☐ 1.1 ☐ 1.2 ☑ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a nd 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☑ 3.7

NGSS.MS-ETS1-3
Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☐ B.1 ☐ B.2 ☐ B.3
☐ 1.1 ☐ 1.2 ☑ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a nd 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☑ 3.5 ☐ 3.6 ☑ 3.7

NGSS.MS-ETS1-4
Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

☐ A.1 ☐ A.2 ☐ A.3 ☐ A.4 ☐ A.5 ☐ B.1 ☐ B.2 ☑ B.3
☐ 1.1 ☐ 1.2 ☑ 1.3 ☐ 2.1 ☐ 2.2 ☐ 2.2a ☐ 2.3a nd 2.3b
☐ 3.1 ☐ 3.2 ☐ 3.3 ☐ 3.4 ☐ 3.5 ☐ 3.6 ☐ 3.7
### Matter and Its Interactions

**NGSS.MS-PS1-2**

Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. [Clarification Statement: Examples of reactions could include burning sugar or steel wool, fat reacting with sodium hydroxide, and mixing zinc with hydrogen chloride.]

- [ ] A.1
- [ ] A.2
- [ ] A.3
- [ ] A.4
- [ ] A.5
- [ ] B.1
- [ ] B.2
- [ ] B.3
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- [X] 1.2
- [ ] 1.3
- [ ] 2.1
- [ ] 2.2
- [ ] 2.2a
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- [ ] 2.3b
- [ ] 3.1
- [ ] 3.2
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- [ ] 3.7

**NGSS.MS-PS1-3**

Gather and make sense of information to describe that synthetic materials come from natural resources and impact society. [Clarification Statement: Emphasis is on natural resources that undergo a chemical process to form the synthetic material. Examples of new materials could include new medicine, foods, and alternative fuels.]

- [ ] A.1
- [ ] A.2
- [ ] A.3
- [ ] A.4
- [ ] A.5
- [ ] B.1
- [ ] B.2
- [ ] B.3
- [X] 1.1
- [X] 1.2
- [ ] 1.3
- [X] 2.1
- [ ] 2.2
- [ ] 2.2a
- [ ] 2.3a
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- [ ] 3.1
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- [ ] 3.4
- [ ] 3.5
- [ ] 3.6
- [ ] 3.7

**NGSS.MS-PS1-6**

Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes. [Clarification Statement: Emphasis is on the design, controlling the transfer of energy to the environment, and modification of a device using factors such as type and concentration of a substance. Examples of designs could involve chemical reactions such as dissolving ammonium chloride or calcium chloride.]

- [ ] A.1
- [ ] A.2
- [ ] A.3
- [ ] A.4
- [ ] A.5
- [ ] B.1
- [ ] B.2
- [ ] B.3
- [X] 1.1
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- [ ] 3.6
- [ ] 3.7

### Motion and Stability: Forces and Interactions

**NGSS.MS-PS2-2**

Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.

- [ ] A.1
- [ ] A.2
- [ ] A.3
- [ ] A.4
- [ ] A.5
- [ ] B.1
- [ ] B.2
- [ ] B.3
- [X] 1.1
- [ ] 1.2
- [ ] 1.3
- [ ] 2.1
- [ ] 2.2
- [ ] 2.2a
- [ ] 2.3a
- [ ] 2.3b
- [ ] 3.1
- [ ] 3.2
- [ ] 3.3
- [X] 3.4
- [X] 3.5
- [ ] 3.6
- [X] 3.7
Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a nd 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  3.7

Apply Newton’s Third Law to design a solution to a problem involving the motion of two colliding objects.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a nd 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  3.7

Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
- 1.1  1.2  1.3  2.1  2.2  2.2a  2.3a nd 2.3b
- 3.1  3.2  3.3  3.4  3.5  3.6  3.7

Asking questions and defining problems in 6–8 builds on K–5 experiences and progresses to specifying relationships between variables, and clarifying arguments and models.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
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- 3.1  3.2  3.3  3.4  3.5  3.6  3.7

Asking questions and defining problems in 6–8 builds on K–5 experiences and progresses to specifying relationships between variables, and clarifying arguments and models.

- A.1  A.2  A.3  A.4  A.5  B.1  B.2  B.3
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- 3.1  3.2  3.3  3.4  3.5  3.6  3.7
Developing and Using Models

NGSS.P2
Modeling in 6-8 builds on K-5 experiences and progresses to developing, using, and revising models to describe, test, and predict more abstract phenomena and design systems.

- Use and/or develop a model of simple systems with uncertain and less predictable factors.
- Develop and/or use a model to predict and/or describe phenomena.

Analyzing and Interpreting Data

NGSS.P4
Analyzing and interpreting data.

- Analyze and interpret data to provide evidence for phenomena.
Next Generation Science Standards

**NGSS.P4**

- Analyze and interpret data to determine similarities and differences in findings.

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**Using Mathematics and Computational Thinking**

**NGSS.P5**

Use mathematical representations to describe and/or support scientific conclusions and design solutions.

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**Constructing Explanations and Designing Solutions**

**NGSS.P6**

- Construct an explanation that includes qualitative or quantitative relationships between variables that predict(s) and/or describe(s) phenomena.

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- Construct an explanation using models or representations.

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Construct a scientific explanation based on valid and reliable evidence obtained from sources (including the students' own experiments) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future.

- Apply scientific ideas, principles, and/or evidence to construct, revise and/or use an explanation for realworld phenomena, examples, or events.
- Apply scientific reasoning to show why the data or evidence is adequate for the explanation or conclusion.
- Apply scientific ideas or principles to design, construct, and/or test a design of an object, tool, process or system.
- Undertake a design project, engaging in the design cycle, to construct and/or implement a solution that meets specific design criteria and constraints.
Next Generation Science Standards

NGSS.P6
- Optimize performance of a design by prioritizing criteria, making tradeoffs, testing, revising, and retesting.

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NGSS.P7
- Evaluate competing design solutions based on jointly developed and agreed-upon design criteria.

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Obtaining, Evaluating, and Communicating Information

NGSS.P8
- Obtaining, evaluating, and communicating information in 6-8 builds on K-5 experiences and progresses to evaluating the merit and validity of ideas and methods.

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NGSS.P8
- Critically read scientific texts adapted for classroom use to determine the central ideas and/or obtain scientific and/or technical information to describe patterns in and/or evidence about the natural and designed world(s).

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NGSS.P8
- Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence.

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☑ 3.1 □ 3.2 □ 3.3 □ 3.4 □ 3.5 □ 3.6 □ 3.7

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Next Generation Science Standards

NGSS.P8

- Communicate scientific and/or technical information (e.g. about a proposed object, tool, process, system) in writing and/or through oral presentations.

Crosscutting Concepts

Scale, proportion, and quantity

3
In considering phenomena, it is critical to recognize what is relevant at different measures of size, time, and energy and to recognize how changes in scale, proportion, or quantity affect a system's structure or performance.

4
Defining the system under study's specifying its boundaries and making explicit a model of that system provides tools for understanding and testing ideas that are applicable throughout science and engineering.

6
The way in which an object or living thing is shaped and its substructure determine many of its properties and functions.
Nature of Science

Scientific Investigations Use a Variety of Methods

- Science investigations use a variety of methods and tools to make measurements and observations.

- Science investigations are guided by a set of values to ensure accuracy of measurements, observations, and objectivity of findings.
References


