PLTW Gateway Standards Connection Flight and Space



Connections to Standards in 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 Flight and Space connects to standards in the following:

Table of Contents

Common Core College and Career Readiness Anchor Standards	Page	2
Common Core State Standards for English Language Arts 6–8 Literacy Standards for History/Social Studies, Science, and Technical Subjects	Page	6
Common Core State Standards for English Language Arts 6th Grade	Page	9
Common Core State Standards for English Language Arts 7th Grade	Page	14
Common Core State Standards for English Language Arts 8th Grade	Page	19
Common Core State Standards for Mathematics 6th Grade	Page	23
International Society for Technology in Education	Page	24
Standards for Technological and Engineering Literacy	Page	26
Next Generation Science Standards	Page	28

Reading						
Key Ideas an	d Details					
	ly to detern	nine what	the text s			make logical inferences from it; cite conclusions drawn from the text.
☑ 1.1	✓ 1.2	✓ 1.3	✓ 1.4	✓ 1.5	✓ 1.6	☑ 1.7
☑ 2.1	✓ 2.2	✓ 2.3	✓ 2.4	✓ 2.5	✓ 2.6	⊻ 2.7
□ 3.1						
CCSS.ELA Determine of supporting	central idea	as or them		ext and an	alyze thei	r development; summarize the key
□ 1.1	✓ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
□ 3.1						
CCSS.ELA Analyze ho	_		_	, and idea	s develop	and interact over the course of a text.
□ 1.1	✓ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
□ 3.1						
CCSS.ELA Integrate ar quantitative	nd evaluate	content p	resented	in diverse	e formats	and media, including visually and
□ 1.1	✓ 1.2	✓ 1.3	✓ 1.4	✓ 1.5	□ 1.6	□ 1.7
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
□ 3.1						
CCSS.ELA Analyze ho compare th	w two or m	ore texts	address s		nes or top	pics in order to build knowledge or to
□ 1.1	✓ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
□ 3.1						

CCSS.ELA-LITERACY.CCRA.R.10

Read and comprehend complex literary and informational texts independently and proficiently. **✓** 1.1 **✓** 1.2 **✓** 1.3 **✓** 1.4 **✓** 1.5 ✓ 1.6 **✓** 1.7 **✓** 2.1 **✓** 2.2 **✓** 2.3 **✓** 2.4 **✓** 2.5 **✓** 2.6 **✓** 2.7 **✓** 3.1 Writing Text Types and Purposes CCSS.ELA-LITERACY.CCRA.W.1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. □ 1.5 □ 1.1 □ 1.2 **✓** 1.3 □ 1.4 **✓** 1.6 □ 1.7 \square 2.1 \square 2.2 \square 2.3 □ 2.4 \square 2.5 □ 2.6 \square 2.7 □ 3.1 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. **✓** 1.6 **✓** 1.1 **✓** 1.2 **✓** 1.3 **✓** 1.4 **✓** 1.5 **✓** 1.7 **✓** 2.1 **✓** 2.2 **✓** 2.3 **✓** 2.4 **✓** 2.5 **✓** 2.6 **✓** 27 **✓** 3.1 CCSS.ELA-LITERACY.CCRA.W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research. □ 1.1 **✓** 1.2 **✓** 1.3 □ 1.4 □ 1.5 □ 1.6 □ 1.7 □ 2.3 \square 2.1 \square 22 \square 2.4 \square 2.5 \square 2.6 \square 2.7 □ 3.1 CCSS.ELA-LITERACY.CCRA.W.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 tasks, purposes, and audiences. □ 1.1 **✓** 1.2 \square 1.3 \square 1.4 \square 1.5 □ 1.6 □ 1.7 □ 2.1 □ 2.2 □ 2.3 □ 2.4 □ 2.5 □ 2.6 \square 2.7 □ 3.1

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.

☑ 1.1 **☑** 1.2 **☑** 1.3 **☑** 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

CCSS.ELA-LITERACY.CCRA.SL.2

Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

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.

☑ 1.1 **☑** 1.2 **☑** 1.3 **☑** 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7

☑ 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7

✓ 3.1

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.

□ 1.1 ☑ 1.2 ☑ 1.3 □ 1.4 □ 1.5 □ 1.6 ☑ 1.7

 \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 \checkmark 2.7

✓ 3.1

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.

☑ 1.1 **☑** 1.2 **☑** 1.3 **☑** 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

Language

Vocabulary Acquistion and Use

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.

✓ 1.1	✓ 1.2	✓ 1.3	□ 1.4	✓ 1.5	✓ 1.6	✓ 1.7
☑ 2.1	✓ 2.2	✓ 2.3	✓ 2.4	✓ 2.5	✓ 2.6	✓ 2.7
☑ 3.1						

CCSS.ELA-LITERACY.CCRA.L.5

Demonstrate understanding of word relationships and nuances in word meanings.

☑ 1.1	✓ 1.2	✓ 1.3	□ 1.4	✓ 1.5	✓ 1.6	✓ 1.7
☑ 2.1	✓ 2.2	✓ 2.3	✓ 2.4	✓ 2.5	✓ 2.6	✓ 2.7
✓ 3.1						

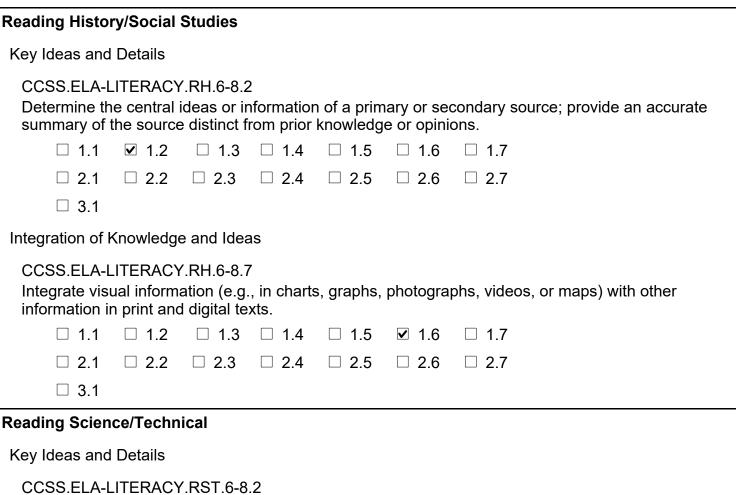
CCSS.ELA-LITERACY.CCRA.L.6

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.

✓ 1.1	✓ 1.2	✓ 1.3	✓ 1.4	✓ 1.5	✓ 1.6	✓ 1.7
☑ 2.1	✓ 2.2	✓ 2.3	✓ 2.4	✓ 2.5	✓ 2.6	✓ 2.7
☑ 3.1						

© Copyright 2010 National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.

Common Core State Standards for English Language Arts 6–8 Literacy Standards for History/Social Studies, Science, and Technical Subjects



Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

✓ 1.1
 ✓ 1.2
 ✓ 1.3
 ✓ 1.4
 ✓ 1.5
 ✓ 1.6
 ☐ 1.7
 ✓ 2.1
 ✓ 2.2
 ✓ 2.3
 ✓ 2.4
 ✓ 2.5
 ✓ 2.6
 ☐ 2.7

□ 3.1

CCSS.ELA-LITERACY.RST.6-8.3

Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

✓ 1.1
 ✓ 1.2
 ✓ 1.3
 ✓ 1.4
 ✓ 1.5
 ✓ 1.6
 ✓ 1.7
 ✓ 2.1
 ✓ 2.2
 ✓ 2.3
 ✓ 2.4
 ✓ 2.5
 ✓ 2.6
 ✓ 2.7

✓ 3.1

Common Core State Standards for English Language Arts 6–8 Literacy Standards for History/Social Studies, Science, and Technical Subjects

0.0	Craft	and	Stru	cture
-----	-------	-----	------	-------

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.

☑ 1.1 **☑** 1.2 **☑** 1.3 **☑** 1.4 **☑** 1.5 **☑** 1.6 □ 1.7

☑ 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 □ 2.7

□ 3.1

Integration of Knowledge and Ideas

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).

 \square 1.1 \square 1.2 \square 1.3 \square 1.4 \square 1.5 \square 1.6 \square 1.7

 \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 \square 2.7

□ 3.1

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.

☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7

☑ 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7

✓ 3.1

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

Text Types and Purposes

CCSS.ELA-LITERACY.WHST.6-8.1.b

Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.

 \square 1.1 \square 1.2 \square 1.3 \square 1.4 \square 1.5 \square 1.6 \square 1.7

 \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 \square 2.7

□ 3.1

Common Core State Standards for English Language Arts 6–8 Literacy Standards for History/Social Studies, Science, and Technical Subjects

CCSS.ELA-LITERACY.WHST.6-8.2

Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.

 \square 1.1 \square 1.2 \square 1.3 \square 1.4 \square 1.5 \square 1.6 \checkmark 1.7

 \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 \checkmark 2.7

✓ 3.1

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

Use precise language and domain-specific vocabulary to inform about or explain the topic.

☑ 1.1 ☑ 1.2 ☑ 1.3 □ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

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 □ 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7

☑ 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7

✓ 3.1

Research to Build and Present Knowledge

CCSS.ELA-LITERACY.WHST.6-8.9

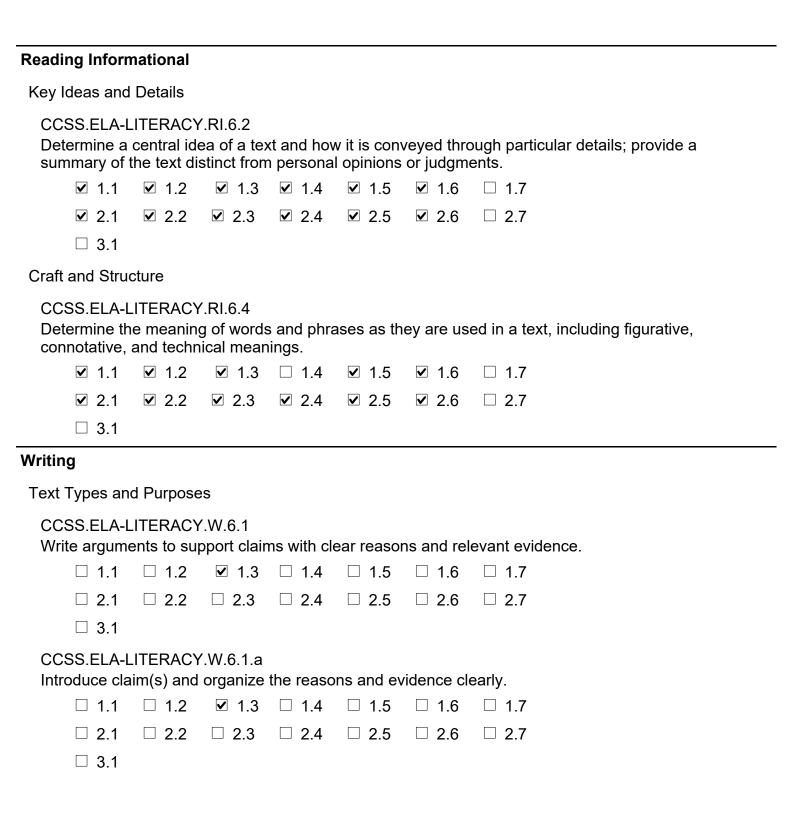
Draw evidence from informational texts to support analysis, reflection, and research.

☑ 1.1 **☑** 1.2 **☑** 1.3 **☑** 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

© Copyright 2010 National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.



CCSS.ELA-LITERACY.W.6.1.b

Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.

- □ 1.1 □ 1.2 ☑ 1.3 □ 1.4 □ 1.5 □ 1.6 □ 1.7
- \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 \square 2.7
- □ 3.1

CCSS.ELA-LITERACY.W.6.1.c

Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.

- ☑ 1.1 ☑ 1.2 ☑ 1.3 □ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7
- ☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7
- **✓** 3.1

CCSS.ELA-LITERACY.W.6.2.d

Use precise language and domain-specific vocabulary to inform about or explain the topic.

- ☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7
- **☑** 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7
- **✓** 3.1

CCSS.ELA-LITERACY.W.6.3.d

Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.

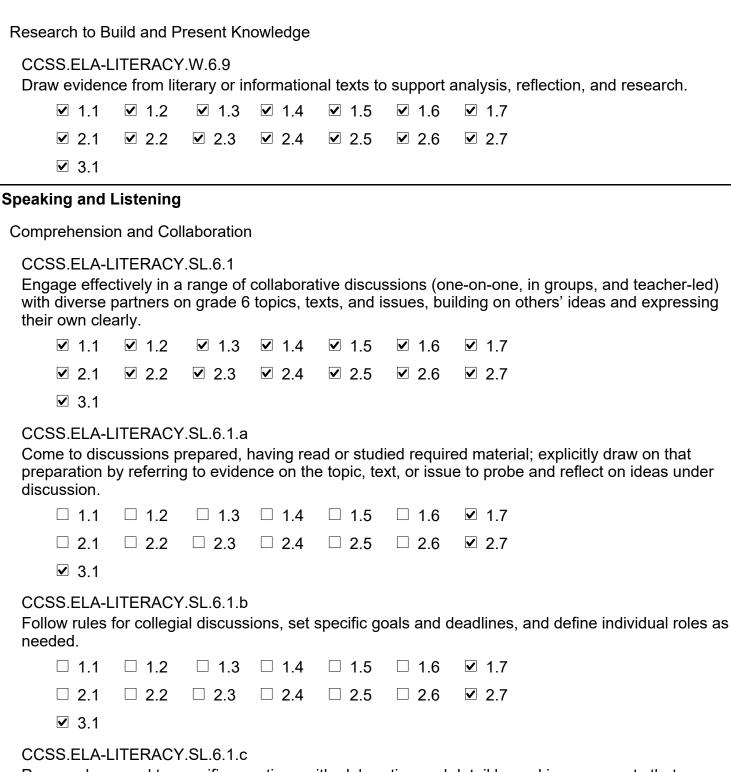
- **☑** 1.1 **☑** 1.2 **☑** 1.3 **☑** 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7
- **☑** 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7
- **✓** 3.1

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.)

- **☑** 1.1 **☑** 1.2 **☑** 1.3 □ 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7
- **☑** 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7
- **✓** 3.1



Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.

✓ 1.1 **✓** 1.2 **✓** 1.3 **✓** 1.4 **✓** 1.5 **✓** 1.6 **✓** 1.7 **✓** 2.1 **✓** 2.2 **✓** 2.3 **∨** 2.4 **✓** 2.5 **✓** 2.6 **✓** 2.7 **✓** 3.1

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.

☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7

☑ 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7

✓ 3.1

Presentation of Knowledge and Ideas

CCSS.ELA-LITERACY.SL.6.5

Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.

 \square 1.1 \square 1.2 \square 1.3 \square 1.4 \square 1.5 \square 1.6 \square 1.7

 \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 $oldsymbol{
oldsymbol{oldsymbol{\varnothing}}}$ 2.7

✓ 3.1

CCSS.ELA-LITERACY.SL.6.6

Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

□ 1.1 □ 1.2 □ 1.3 □ 1.4 □ 1.5 □ 1.6 ☑ 1.7

 \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 \checkmark 2.7

✓ 3.1

Language

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.

☑ 1.1 **☑** 1.2 **☑** 1.3 **☑** 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7

☑ 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7

✓ 3.1

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.

☑ 1.1 **☑** 1.2 **☑** 1.3 **☑** 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7

☑ 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7

✓ 3.1

Common Core State Standards for English Language Arts 6th Grade © Copyright 2010 National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.

Reading Liter	rature					
Key Ideas an	d Details					
CCSS.ELA Cite severa inferences	I pieces of	textual evi	dence to	support a	nalysis of	what the text says explicitly as well as
☑ 1.1	✓ 1.2	✓ 1.3	□ 1.4	✓ 1.5	✓ 1.6	□ 1.7
☑ 2.1	✓ 2.2	✓ 2.3	✓ 2.4	✓ 2.5	✓ 2.6	□ 2.7
□ 3.1						
CCSS.ELA Determine provide an	a theme or	central ide		kt and ana	ılyze its d	evelopment over the course of the text;
□ 1.1	✓ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
□ 3.1						
Writing						
Text Types a	nd Purpose	es				
CCSS.ELA Write argur	_		ns with cle	ear reasor	ns and rel	evant evidence.
□ 1.1	□ 1.2	✓ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
□ 3.1						
CCSS.ELA Support cla demonstrat	im(s) with I	ogical rea	_			e, using accurate, credible sources and
□ 1.1	□ 1.2	✓ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
□ 3.1						
CCSS.ELA Write inform through the	native/expl	anatory te				onvey ideas, concepts, and information content.
☑ 1.1	✓ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
□ 3.1						

CCSS.ELA-LITERACY.W.7.2.d

Use precise language and domain-specific vocabulary to inform about or explain the topic.

☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

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.

☑ 1.1 **☑** 1.2 **☑** 1.3 **☑** 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

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)

☑ 1.1 ☑ 1.2 ☑ 1.3 □ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7

☑ 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7

✓ 3.1

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.

☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

Со	me to disc		repared, l				aterial under study; explicitly draw on
	t preparat der discus		erring to e	vidence o	n the topi	c, text, or	issue to probe and reflect on ideas
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	☑ 1.7
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7
	☑ 3.1						
Fol	low rules	ITERACY for collegi es as nee	al discuss		k progress	s toward s	specific goals and deadlines, and define
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	☑ 1.7
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	⊻ 2.7
	☑ 3.1						
Pos	se questio		cit elabora		•		questions and comments with relevant c as needed.
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	☑ 1.7
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7
	☑ 3.1						
CC	SS.ELA-L	.ITERACY	′.SL.7.1.d				
Acl	knowledge	e new info	rmation ex	xpressed	by others	and, whe	n warranted, modify their own views.
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	☑ 1.7
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7
	☑ 3.1						
Pres	entation o	f Knowled	lge and Id	eas			
Inc	lude multi	ITERACY media cor alient poir	nponents	and visua	ıl displays	in presen	ntations to clarify claims and findings and
	1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	☑ 1.7
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7
	☑ 3.1						

CCSS.ELA-LITERACY.SL.7.6 Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. **✓** 1.1 **✓** 1.2 **✓** 1.3 □ 1.4 **✓** 1.5 **✓** 1.6 **✓** 1.7 **✓** 2.6 **✓** 21 **✓** 2.2 **✓** 2.3 **✓** 2.4 **✓** 2.5 **√** 27 **✓** 3.1 Language Knowledge of Language CCSS.ELA-LITERACY.L.7.3.a Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy. □ 1.1 □ 1.2 □ 1.3 □ 1.4 □ 1.5 □ 1.6 **✓** 1.7 □ 2.3 \square 2.1 □ 2.2 \square 2.4 □ 2.5 □ 2.6 **✓** 2.7 **✓** 3.1 Vocabulary Acquisition and Use CCSS.ELA-LITERACY.L.7.4 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. **✓** 11 **✓** 1.2 **✓** 1.3 □ 1.4 **✓** 1.5 **✓** 1.6 **✓** 1.7 **✓** 2.2 **✓** 2.3 **✓** 2.5 **✓** 2.1 **✓** 2.4 **✓** 2.6 **✓** 2.7 **✓** 3.1 CCSS.ELA-LITERACY.L.7.4.a Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a

sentence) as a clue to the meaning of a word or phrase.



CCSS.ELA-LITERACY.L.7.6

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.

✓ 1.1	☑ 1.2	✓ 1.3	✓ 1.4	☑ 1.5	✓ 1.6	⊻ 1.7
☑ 2.1	✓ 2.2	✓ 2.3	✓ 2.4	✓ 2.5	✓ 2.6	✓ 2.7
☑ 3.1						

Common Core State Standards for English Language Arts 7th Grade © Copyright 2010 National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.

national					
Details					
central ide	ea of a tex orting idea	as; provid	e an objec	ctive sumr	
					□ 2.7
□ ∠.∠	_ 2.0	□ 2. ¬	_ 2.0	□ 2.0	_ 2.7
d Durnose	1 6				
•					
		ns with cle	ear reasor	ns and rele	evant evidence.
□ 1.2	✓ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7
□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
n(s) with l	ogical rea				e, using accurate, credible sources and
□ 1.2	✓ 1.3	□ 1.4	□ 1.5	✓ 1.6	□ 1.7
□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
ITERACY ative/expla selection,	anatory te				onvey ideas, concepts, and information content.
ative/expla	anatory te				·
ative/expla	anatory tex organizati	on, and a	nalysis of	relevant c	content.
ative/expla selection, 1.2	anatory tex organizati □ 1.3	on, and a □ 1.4	nalysis of □ 1.5	relevant c □ 1.6	content.
ative/expla selection, 1.2 2.2	anatory texorganizati 1.3 2.3	on, and a □ 1.4 □ 2.4	nalysis of 1.5 2.5	relevant o □ 1.6 □ 2.6	content. □ 1.7 □ 2.7
ative/expla selection, 1.2 2.2	anatory texorganizati 1.3 2.3	on, and a □ 1.4 □ 2.4	nalysis of 1.5 2.5	relevant o □ 1.6 □ 2.6	content.
ative/expla selection, 1.2 2.2 LITERACY language	anatory texorganizati 1.3 2.3 .W.8.2.d and doma	on, and	nalysis of 1.5 2.5 vocabula	relevant o 1.6 2.6 ary to info	content. □ 1.7 □ 2.7 rm about or explain the topic.
	Details LITERACY central ide ip to supp 1.2 2.2 d Purpose LITERACY ents to sup 1.2 2.2 LITERACY m(s) with leng an under	Details LITERACY.RI.8.2 central idea of a texip to supporting idea ☑ 1.2 ☐ 1.3 ☐ 2.2 ☐ 2.3 d Purposes LITERACY.W.8.1 ents to support claim ☐ 1.2 ☑ 1.3 ☐ 2.2 ☐ 2.3 LITERACY.W.8.1.b m(s) with logical reading an understanding ☐ 1.2 ☑ 1.3	Details LITERACY.RI.8.2 central idea of a text and analip to supporting ideas; provided and ip to supporting ideas; provided and ip to supporting ideas; provided and ideas are supported as a support of the support claims with claims to support claims with claims to support claims with claims are also as a support claims with claims are also as a support claims with claims are also as a support claims are also as a su	LITERACY.RI.8.2 central idea of a text and analyze its desip to supporting ideas; provide an object ✓ 1.2 □ 1.3 □ 1.4 □ 1.5 □ 2.2 □ 2.3 □ 2.4 □ 2.5 d Purposes LITERACY.W.8.1 ents to support claims with clear reason □ 1.2 ☑ 1.3 □ 1.4 □ 1.5 □ 2.2 □ 2.3 □ 2.4 □ 2.5 LITERACY.W.8.1.b m(s) with logical reasoning and relevant and an understanding of the topic or text. □ 1.2 ☑ 1.3 □ 1.4 □ 1.5	LITERACY.RI.8.2 central idea of a text and analyze its developme ip to supporting ideas; provide an objective sumi □ 1.2 □ 1.3 □ 1.4 □ 1.5 □ 1.6 □ 2.2 □ 2.3 □ 2.4 □ 2.5 □ 2.6 d Purposes LITERACY.W.8.1 ents to support claims with clear reasons and reli □ 1.2 □ 1.3 □ 1.4 □ 1.5 □ 1.6 □ 2.2 □ 2.3 □ 2.4 □ 2.5 □ 2.6 LITERACY.W.8.1.b m(s) with logical reasoning and relevant evidence in an understanding of the topic or text. □ 1.2 □ 1.3 □ 1.4 □ 1.5 □ 1.6

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.

☑ 1.1 **☑** 1.2 **☑** 1.3 □ 1.4 **☑** 1.5 **☑** 1.6 **☑** 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

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.)

☑ 1.1 ☑ 1.2 ☑ 1.3 □ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

Research to Build and Present Knowledge

CCSS.ELA-LITERACY.W.8.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7

☑ 2.1 **☑** 2.2 **☑** 2.3 **☑** 2.4 **☑** 2.5 **☑** 2.6 **☑** 2.7

✓ 3.1

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.

☑ 1.1 ☑ 1.2 ☑ 1.3 ☑ 1.4 ☑ 1.5 ☑ 1.6 ☑ 1.7

☑ 2.1 ☑ 2.2 ☑ 2.3 ☑ 2.4 ☑ 2.5 ☑ 2.6 ☑ 2.7

✓ 3.1

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. □ 1.1 □ 1.4 □ 1.2 \Box 1.3 □ 1.5 □ 1.6 **✓** 1.7 □ 2.1 □ 2.2 \square 2.3 \square 2.4 \square 2.5 □ 2.6 **✓** 2.7 **✓** 3.1 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. □ 1.1 □ 1.2 □ 1.3 □ 1.4 **✓** 1.7 □ 1.5 □ 1.6 \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 **✓** 2.7 **✓** 3.1 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. **✓** 1.1 **✓** 1.2 **✓** 1.3 **✓** 1.4 **✓** 1.5 **✓** 1.6 **✓** 1.7 **✓** 2.2 **✓** 2.6 **✓** 2.1 **✓** 2.3 **✓** 2.4 **✓** 2.5 **✓** 2.7 **✓** 3.1 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. □ 1.1 □ 1.2 □ 1.4 □ 1.5 □ 1.6 **✓** 1.7 \Box 1.3 \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 **✓** 2.7 **✓** 3.1

Language

Vocabulary Acquisition and Use

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.

☑ 1.1	✓ 1.2	✓ 1.3	✓ 1.4	✓ 1.5	✓ 1.6	✓ 1.7
☑ 2.1	✓ 2.2	✓ 2.3	✓ 2.4	✓ 2.5	✓ 2.6	✓ 2.7
☑ 3.1						

© Copyright 2010 National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.

Common Core State Standards for Mathematics 6th Grade

The Nun	nber Sy	stem					
Comput	te Fluen	itly With M	lulti-Digit	Numbers	And Find	Common	Factors And Multiples.
	tly add,	.CONTEN subtract, ı	_	_	multi-digi	t decimals	s using the standard algorithm for each
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	☑ 1.5	□ 1.6	□ 1.7
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7
	□ 3.1						
_							
Express	ions Ar	nd Equati	ons				
-		•		standings	Of Arithm	netic To A	lgebraic Expressions.
Apply A CCSS Write	and Exte S.MATH express	end Previo CONTEN	us Unders T.6.EE.A record op	.2.a erations w	vith numbe	ers and w	ith letters standing for numbers. For
Apply A CCSS Write examp	and Exte S.MATH express	end Previo CONTEN sions that	us Unders T.6.EE.A record op	.2.a erations w	vith numbe	ers and w	ith letters standing for numbers. For
Apply A CCSS Write examp	and Exte S.MATH express ple, exp	end Previo CONTEN sions that ress the c	us Unders T.6.EE.A record operation □ 1.3	.2.a erations w "Subtract	vith numbers y from 5'	ers and w ' as 5 – y.	ith letters standing for numbers. For

© Copyright 2010 National Governors Association Center for Best Practices and Council of Chief State

School Officers. All rights reserved.

International Society for Technology in Education

Innov	ative Des	signer							
4a									
		ow and us	e a delibe	rate desig	n process	for gene	rating ideas, te	esting theories,	creating
inn	ovative a	tifacts or	solving au	thentic pr	oblems.	J			· ·
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7		
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7		
	☑ 3.1								
4b									
		ect and us and calcula	_	•	an and ma	ınage a dı	esign process	that considers of	design
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7		
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7		
	☑ 3.1								
4c									
Stı	udents dev	velop, test	and refin	e prototyp	es as par	t of a cycl	ical design pro	cess.	
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7		
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7		
	☑ 3.1								
Com	outationa	l Thinker							
.									
5c Sti	idents bre	ak proble	ms into co	mponent	narts ext	ract kev ir	nformation and	d develop desci	rintive
		•		•	r facilitate	•		и истогор иссо.	
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	✓ 1.6	□ 1.7		
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7		
	☑ 3.1								
Globa	al Collabo	orator							
_									
		ntribute co ely toward			ect teams,	assumino	g various roles	and responsibi	lities to
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	✓ 1.7		
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	✓ 2.7		
	☑ 3.1								

International Society for Technology in Education							
	© 2024 Project Lead The Way Inc.						

Standards for Technological and Engineering Literacy

Nature and Ch	naracteris	tics of Te	chnolog	y and Eng	gineering				
STEL-1M									
Apply creation developmen	•		_	to the imp	orovemen	t of existing devices or processes or the			
□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
☑ 3.1									
History of Technology									
STEL-6C									
Compare va	rious tech	inologies a	and how t	hey have	contribute	ed to human progress.			
□ 1.1	□ 1.2	□ 1.3	□ 1.4	✓ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
Design in Tec	hnology a	and Engin	eering E	ducation					
STEL-7Q									
Apply the te	chnology a	and engine	eering de	sign proce	ess.				
□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	☑ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7			
☑ 3.1									
STEL-7R									
Refine design	gn solution	is to addre	ss criteria	a and cons	straints.				
□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	☑ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7			
☑ 3.1									
STEL-7U Evaluate the	etronathe	s and weal	vnesses (of different	design s	alutions			
			□ 1.4		\Box 1.6	✓ 1.7			
□ 1.1 □ 2.1	□ 1.2 □ 2.2	□ 1.3 □ 2.3	□ 1. 4	□ 1.5 □ 2.5	□ 1.0 □ 2.6	✓ 1.7✓ 2.7			
	⊔ ∠.∠	□ 2.3	⊔ ∠. 4	□ 2.3	□ ∠.0	▼ ∠./			
✓ 3.1									

Standards for Technological and Engineering Literacy

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

□ 1.1 □ 1.2 □ 1.3 □ 1.4 □ 1.5 □ 1.6 ☑ 1.7
□ 2.1 □ 2.2 □ 2.3 □ 2.4 □ 2.5 □ 2.6 ☑ 2.7
☑ 3.1

Earth's Place in the Universe NGSS.MS-ESS1-2 Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system. □ 1.1 □ 1.2 □ 1.3 □ 1.4 □ 1.5 □ 1.6 □ 1.7 \square 21 □ 2.2 **✓** 2.3 □ 2.5 \square 27 □ 2.4 \square 2.6 □ 3.1 **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. □ 1.3 **✓** 1.1 □ 1.2 □ 1.4 □ 1.5 □ 1.6 **✓** 1.7 \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 **✓** 2.7 **✓** 3.1 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. **☑** 1.1 □ 1.2 □ 1.3 □ 1.4 □ 1.5 □ 1.6 **✓** 1.7 \square 21 \square 22 \square 2.3 □ 2.4 □ 2.5 □ 2.6 **∨** 27 **✓** 3.1 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. **✓** 1.1 □ 1.2 **✓** 1.3 □ 1.4 □ 1.5 □ 1.6 **✓** 1.7 \square 2.1 \square 2.2 \square 2.3 \square 2.4 \square 2.5 \square 2.6 **✓** 2.7 **✓** 3.1

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.										
☑ 1.1	□ 1.2	•	Ü	□ 1.5	□ 1.6	☑ 1.7				
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7				
☑ 3.1										
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.										
□ 1.1	□ 1.2	✓ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7				
□ 2.1	✓ 2.2	✓ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7				
☑ 3.1										
NGSS.MS-PS2-4 Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.										
□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7				
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7				
□ 3.1										
NGSS.MS-PS2-1 Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects. □ 1.1 ☑ 1.2 ☑ 1.3 □ 1.4 □ 1.5 □ 1.6 □ 1.7										
□ 2.1	✓ 2.2	✓ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7				
☑ 3.1										
Science and Engineering Practices										
Asking Questions and Defining Problems										
NGSS.P1 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.										
□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7				
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7				
☑ 3.1										

NGSS.P1									
 to determine models. 	ne relation	ships betv	ween inde	pendent a	and deper	ndent variables and relationships in			
□ 1.1	□ 1.2	□ 1.3	□ 1.4	☑ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
NGSS.P1									
• to clarify and/or refine a model, an explanation, or an engineering problem.									
☑ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
Developing an	nd Using M	lodels							
						developing, using, and revising models design systems.			
□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	☑ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7			
□ 3.1									
NGSS.P2									
 Develop ar not observat 					nships an	nong variables, including those that are			
□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	✓ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
NGSS.P2 • Develop ar	ad/or use <i>i</i>	n model to	nredict c	and/or des	cribe phe	nomena			
□ 1.1		□ 1.3	. βιεαίσι ε □ 1.4		□ 1.6				
□ 1.1 □ 2.1	□ 1.2 □ 2.2	□ 1.3	□ 1. 4	□ 2.5	□ 1.0 □ 2.6	□ 2.7			
□ 2.1 □ 3.1	⊔ ∠.∠	⊔ ∠. 3	□ 2.4	□ 2.5	□ ∠.0	⊔ ∠. I			
⊔ 3.1									

NG	SSS.P2									
• Develop and/or use a model to generate data to test ideas about phenomena in natural or designed systems, including those representing inputs and outputs, and those at unobservable scales.										
	☑ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7			
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
	□ 3.1									
Plan	Planning and Carrying Out Investigations									
NG	SSS.P3									
	• Conduct an investigation and/or evaluate and/or revise the experimental design to produce data to serve as the basis for evidence that meet the goals of the investigation.									
	☑ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7			
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
	□ 3.1									
NG	SSS.P3									
	ollect data nditions.	a about th	e perform	ance of a	proposed	object, to	ol, process or system under a range of			
	✓ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7			
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
	□ 3.1									
Anal	yzing and	Interpretir	ng Data							
_	SSS.P4									
An	alyzing an	-	•							
					✓ 1.5					
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
	□ 3.1									
	SSS.P4									
	lse graphion poral and				ts, graphs	s, and/or to	ables) of large data sets to identify			
	□ 1.1	□ 1.2	□ 1.3	□ 1.4	✓ 1.5	□ 1.6	□ 1.7			
	□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
	□ 3.1									

NGSS.P4										
 Analyze and interpret data to provide evidence for phenomena. 										
☑ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	✓ 1.6	□ 1.7				
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7				
□ 3.1										
Using Mathen	natics and	Computat	tional Thir	nking						
		•	_			experiences and progresses to I concepts to support explanations and				
□ 1.1	□ 1.2	☑ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7				
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7				
□ 3.1										
Constructing E	Explanatio	ns and De	esigning S	Solutions						
	tructing ex	xplanation	s and des	signing so	lutions su _l	ds on K-5 experiences and progresses to opported by multiple sources of evidence				
□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	☑ 1.7				
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	☑ 2.7				
☑ 3.1										
NGSS.P6										
 Apply scient process or s 		or princip	oles to des	sign, cons	truct, and	or test a design of an object, tool,				
· 2 1.1	_ □ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7				
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7				
□ 3.1										
NGSS.P7										
						t supported by empirical evidence and nodel for a phenomenon or a solution to a				
☑ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7				
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7				
□ 3.1										

NGSS.P7									
 Make an oral or written argument that supports or refutes the advertised performance of a device, process, or system based on empirical evidence concerning whether or not the technology meets relevant criteria and constraints. 									
☑ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
Obtaining, Eva	ıluating, a	nd Comm	unicating	Informatio	n				
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.									
□ 1.1	□ 1.2	✓ 1.3	✓ 1.4	□ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
NGSS.P8									
 Integrate que contained in 							in written text with that		
□ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	✓ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
NGSS.P8									
 Communication system) in w 					` `	oout a proposed o	bject, tool, process,		
✓ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
Nature of Science									
Scientific Investigations Use a Variety of Methods									
 Science inv 	estigation/		ariety of n	nethods a	nd tools to	make measuren	nents and observations.		
☑ 1.1	□ 1.2	□ 1.3	□ 1.4	□ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									

Scientific Knowledge Assumes an Order and Consistency in Natural Systems

 Science as understanda 		•				s occur in consistent patterns that are			
□ 1.1	□ 1.2	□ 1.3	□ 1.4	✓ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
Science is a H	luman End	deavor							
 Men and we engineers. 	omen fror	n different	social, c	ultural, an	d ethnic b	ackgrounds work as scientists and			
□ 1.1	✓ 1.2	□ 1.3	□ 1.4	□ 1.5	✓ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
 Men and we engineers. 	omen fror	n different	social, c	ultural, an	d ethnic b	ackgrounds work as scientists and			
□ 1.1	☑ 1.2	□ 1.3	□ 1.4	□ 1.5	✓ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
 Scientists a ambiguity, sl 	_	_	•		nind such	as intellectual honesty, tolerance of			
□ 1.1	□ 1.2	✓ 1.3	✓ 1.4	□ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									
 Advances in technology influence the progress of science and science has influenced advances in technology. 									
□ 1.1	□ 1.2	□ 1.3	□ 1.4	☑ 1.5	□ 1.6	□ 1.7			
□ 2.1	□ 2.2	□ 2.3	□ 2.4	□ 2.5	□ 2.6	□ 2.7			
□ 3.1									

References

International Society for Technology in Education. (2020) *ISTE Standards For Students*. Retrieved from http://www.iste.org/standards/for-students

International Technology and Engineering Educators Association. (2020). Standards for technological and engineering literacy: The role of technology and engineering in STEM education. Retrieved from https://www.iteea.org/STEL.aspx

National Governors Association Center for Best Practices, & Council of Chief State School Officers. (2010). *Common Core State Standards*. Washington, DC: National Governors Association Center for Best Practices, Council of Chief State School Officers. Retrieved from http://www.corestandards.org/read-the-standards/