COMMON CORE CONNECTIONS

ROCKETRY

Grade: 7 Language CCSS.ELA-Literacy.L.7.3,3a,4,4a,4b,4c,4d,5,5c,6

3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.
3a Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.
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
4a 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.
4b Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., belligerent, bellicose, rebel).
4c Consult general and specialized reference materials (e.g., dictionaries, glossaries,thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
4d Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
5c Distinguish among the connotations (associations) of words with similar denotations(definitions) (e.g., refined, respectful, polite, diplomatic, condescending).
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.

Grade: 6-8 History/Social Studies
CCSS.ELA-Literacy.RH.6-8.1,2,3,4,5,6,7,8,9,10

1 Cite specific textual evidence to support analysis of primary and secondary sources.
2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
3 Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).
4 Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
5 Describe how a text presents information (e.g., sequentially, comparatively, causally).
6 Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).
7 Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
8 Distinguish among fact, opinion, and reasoned judgment in a text.
9 Analyze the relationship between a primary and secondary source on the same topic.
10 By the end of grade 8, read and comprehend history/social studies texts in the grades 6–8 text complexity band independently and proficiently.

Grade: 7 Geometry CCSS.Math.Content.7.G.B.6

B.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

COMMON CORE CONNECTIONS

ROCKETRY

Grade: 6-8 Science & Technical Subjects
CCSS.ELA-Literacy.RST.6-8.1,2,3,4,5,6,7,8,9,10

1 Cite specific textual evidence to support analysis of science and technical texts.
2 Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.
3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
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.
5 Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.
6 Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
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).
8 Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
9 Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.
10 By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.

Grade: 7 Speaking & Listening CCSS.ELA-Literacy.SL.7.1,1a,1b,1c,1d,2,3,4,5,5

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.
1a 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.
1b Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.
1c 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.
1d Acknowledge new information expressed by others and, when warranted, modify their own views.
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.
3 Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.
4 Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
5 Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.
5 Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

Grade: 6-8 Writing HST
CCSS.ELA-Literacy.WHST.6-8.1,1a,1b,2,2a,2c,2d,7,8,9

1 Write arguments focused on discipline-specific content.
1a Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim (s) from alternate or opposing claims, and organize the reasons and evidence logically.
1b Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.
2 Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
2a Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
2c Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
2d Use precise language and domain-specific vocabulary to inform about or explain the topic.
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.
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.
9 Draw evidence from informational texts to support analysis reflection, and research.