FIRST® Tech Challenge Common Core English/Language Arts Standards Alignment & Instructional Exemplars
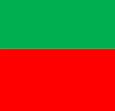
Rationale	Color Code
There is no evidence that the standard is addressed as part of a *FIRST®* program.	(red)
This standard potentially could be addressed as part of a *FIRST®* program either by actions that the coach/mentor takes when working with the students or by conditions established by the program for that given year.	(yellow)
The standard is clearly addressed by program activities.	(green)

Anchor	Anchor Strand	Cluster	Cluster Strand	Standard	Indicator/Skill	*FIRST®* Alignment	Instructional Exemplar
College and Career Readiness Anchor Standards for Reading	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.	Reading: Literature	Key Ideas and Details	RL.7.1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	(red)	Not Applicable
College and Career Readiness Anchor Standards for Reading	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.	Reading: Informational Text	Key Ideas and Details	RI.7.1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	(green)	As students research to find answers to questions that arise during robot design, construction, programming, and operation, students will quote sources and draw inferences to support their position.
College and Career Readiness Anchor Standards for Reading	Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.	Reading: Literature	Key Ideas and Details	RL.7.2	Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.	(red)	Not Applicable
College and Career Readiness Anchor Standards for Reading	Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.	Reading: Informational Text	Key Ideas and Details	RI.7.2	Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.	(green)	As students research to find answers to questions that arise during robot design, construction, programming, and operation, students will summarize the main ideas and supporting details from informational text.
College and Career Readiness Anchor Standards for Reading	Analyze how and why individuals, events, or ideas develop and interact over the course of a text.	Reading: Literature	Key Ideas and Details	RL.7.3	Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).	(red)	Not Applicable
College and Career Readiness Anchor Standards for Reading	Analyze how and why individuals, events, or ideas develop and interact over the course of a text.	Reading: Informational Text	Key Ideas and Details	RI.7.3	Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).	(yellow)	Depending upon the questions that arise during robot design, construction, programming, and operation, students may have the opportunity to analyze how individuals and events influence the development of an idea.
College and Career Readiness Anchor Standards for Reading	Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.	Reading: Literature	Craft and Structure	RL.7.4	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.	(red)	Not Applicable
College and Career Readiness Anchor Standards for Reading	Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.	Reading: Informational Text	Craft and Structure	RI.7.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.	(yellow)	As part of reading the informational text, students will make sense of words and phrases they encounter and may have the opportunity to examine how the word choice affects the meaning and tone of the piece.

College and Career Readiness Anchor Standards for Reading	Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.	Reading: Literature	Craft and Structure	RL.7.5	Analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning.	🟥	Not Applicable
College and Career Readiness Anchor Standards for Reading	Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.	Reading: Informational Text	Craft and Structure	RI.7.5	Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas	🟨	Depending upon the questions that arise during robot design, construction, programming, and operation, students may analyze informational texts they read to determine how information is organized to develop the ideas presented.
College and Career Readiness Anchor Standards for Reading	Assess how point of view or purpose shapes the content and style of a text.	Reading: Literature	Craft and Structure	RL.7.6	Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.	🟥	Not Applicable
College and Career Readiness Anchor Standards for Reading	Assess how point of view or purpose shapes the content and style of a text.	Reading: Informational Text	Craft and Structure	RI.7.6	Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.	🟨	Depending upon the questions that arise during robot design, construction, programming, and operation, students may analyze informational texts they read to determine the author's point of view and how that influences the information presented in the text.
College and Career Readiness Anchor Standards for Reading	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.	Reading: Literature	Integration of Knowledge and Ideas	RL.7.7	Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).	🟥	Not Applicable
College and Career Readiness Anchor Standards for Reading	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.	Reading: Informational Text	Integration of Knowledge and Ideas	RI.7.7	Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).	🟨	Depending upon the questions that arise during robot design, construction, programming, and operation, students may make use of multiple sources of information, including digital media (i.e., websites, videos) to develop their conclusions.
College and Career Readiness Anchor Standards for Reading	Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.	Reading: Informational Text	Integration of Knowledge and Ideas	RI.7.8	Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.	🟨	Depending upon the text in question, students may evaluate how the argument and claims were developed to determine if enough evidence is present to support the claims.
College and Career Readiness Anchor Standards for Reading	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.	Reading: Literature	Integration of Knowledge and Ideas	RL.7.9	Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.	🟥	Not Applicable
College and Career Readiness Anchor Standards for Reading	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.	Reading: Informational Text	Integration of Knowledge and Ideas	RI.7.9	Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts	🟨	Depending upon the questions that arise during robot design, construction, programming, and operation, students may evaluate how two authors write about the same topic comparing and contrasting the information presented and the organization used to convey information.
College and Career Readiness Anchor Standards for Reading	Read and comprehend complex literary and informational texts independently and proficiently.	Reading: Literature	Range of Reading and Text Complexity	RL.7.10	By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	🟥	Not Applicable
College and Career Readiness Anchor Standards for Reading	Read and comprehend complex literary and informational texts independently and proficiently.	Reading: Informational Text	Range of Reading and Text Complexity	RI.7.10	By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	🟩	As part of robot design, construction, programming, and operation, students will have to read multiple scientific and technical texts in order to design and program their robot.
College and Career Readiness Anchor Standards for Writing	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	Writing	Text Type and Purpose	W.7.1.A	Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.	🟩	As part of recording their experience of robot design, construction, programming, and operation in their Engineering Notebook, students will make claims and provide organized supporting evidence.

Standard Set	Standard Description	Subject	Category	Code	Benchmark		Application
College and Career Readiness Anchor Standards for Writing	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	Writing	Text Type and Purpose	W.7.1.B	Write arguments to support claims with clear reasons and relevant evidence. b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.		As part of recording their experience of robot design, construction, programming, and operation in their Engineering Notebook, students will support claims made using relevant evidence and credible sources.
College and Career Readiness Anchor Standards for Writing	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	Writing	Text Type and Purpose	W.7.1.C	Write arguments to support claims with clear reasons and relevant evidence. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.		As part of recording their experience of robot design, construction, programming, and operation in their Engineering Notebook, students will use the correct words and phrases to establish relationships between claims and supporting reasons.
College and Career Readiness Anchor Standards for Writing	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	Writing	Text Type and Purpose	W.7.1.D	Write arguments to support claims with clear reasons and relevant evidence. d. Establish and maintain a formal style.		As part of recording their experience of robot design, construction, programming, and operation in their Engineering Notebook, students will make use of a formal writing style.
College and Career Readiness Anchor Standards for Writing	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	Writing	Text Type and Purpose	W.7.1.E	Write arguments to support claims with clear reasons and relevant evidence. e. Provide a concluding statement or section that follows from and supports the argument presented.		As part of recording their experience of robot design, construction, programming, and operation in their Engineering Notebook, students will need to include a concluding statement or section which summarizes their argument.
College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	W.7.2.A	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., readings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.		As part of recording their experience of robot design, construction, programming, and operation in their Engineering Notebook, students will introduce their topic and provide appropriate organization and formatting as is necessary to aid in comprehension.
College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	W.7.2.B	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.		As part of the Engineering Notebook, students will use facts, definitions, quotations, and other information as is appropriate to convey their message.
College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	W.7.2.C	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.		As part of recording their experience of robot design, construction, programming, and operation in their Engineering Notebook, students will use transitional language to link ideas and concepts as well as convey relationships as is necessary to communicate their message.

College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	W.7.2.D	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. d. Use precise language and domain-specific vocabulary to inform about or explain the topic.	As part of the Engineering Notebook, students will use precise language and domain-specific vocabulary as is necessary to communicate their message.
College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	W.7.2.E	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. e. Establish and maintain a formal style.	As part of the Engineering Notebook, students will write in a formal style.
College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	W.7.2.F	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. f. Provide a concluding statement or section that follows from and supports the information or explanation presented.	As part of the Engineering Notebook, students will provide a concluding statement or section to summarize their work.
College and Career Readiness Anchor Standards for Writing	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	Writing	Text Type and Purpose	W.7.3.A	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members might construct a narrative regarding their team experience, robot building, coach/mentor, or goals/objectives.
College and Career Readiness Anchor Standards for Writing	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	Writing	Text Type and Purpose	W.7.3.B	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members might construct a narrative regarding their team experience, robot building, coach/mentor, or goals/objectives.
College and Career Readiness Anchor Standards for Writing	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	Writing	Text Type and Purpose	W.7.3.C	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members might construct a narrative regarding their team experience, robot building, coach/mentor, or goals/objectives.
College and Career Readiness Anchor Standards for Writing	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	Writing	Text Type and Purpose	W.7.3.D	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members might construct a narrative regarding their team experience, robot building, coach/mentor, or goals/objectives.

College and Career Readiness Anchor Standards for Writing	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	Writing	Text Type and Purpose	W.7.3.E	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. e. Provide a conclusion that follows from and reflects on the narrated experiences or events.	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members might construct a narrative regarding their team experience, robot building, coach/mentor, or goals/objectives.
College and Career Readiness Anchor Standards for Writing	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	Writing	Production and Distribution of Writing	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 1–3 above.)	As part of the Engineering Notebook, students will be expected to write consistent with the appropriate grade-level writing standards.
College and Career Readiness Anchor Standards for Writing	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.	Writing	Production and Distribution of Writing	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. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 7 listed above.)	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members might use research to draw conclusions about their team experience, robot building, coach/mentor, or goals/objectives.
College and Career Readiness Anchor Standards for Writing	Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.	Writing	Production and Distribution of Writing	W.7.6	Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members might use research to draw conclusions about their team experience, robot building, coach/mentor, or goals/objectives.
College and Career Readiness Anchor Standards for Writing	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	Writing	Research to Build and Present Knowledge	W.7.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	As part of *FIRST®* Tech Challenge, students will conduct research to design their robot, program the robot, and to prepare for competition.
College and Career Readiness Anchor Standards for Writing	Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.	Writing	Research to Build and Present Knowledge	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.	As part of their research to answer questions that arise, design their robot, program the robot, and to prepare for competition, students will collect notes and information from a variety of data sources.
College and Career Readiness Anchor Standards for Writing	Draw evidence from literary or informational texts to support analysis, reflection, and research.	Writing	Research to Build and Present Knowledge	W.7.9.A	Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply grade 7 Reading standards to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history").	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members might use research to draw conclusions about their team experience, robot building, coach/mentor, or goals/objectives.
College and Career Readiness Anchor Standards for Writing	Draw evidence from literary or informational texts to support analysis, reflection, and research.	Writing	Research to Build and Present Knowledge	W.7.9.B	Draw evidence from literary or informational texts to support analysis, reflection, and research. b. Apply grade 7 Reading standards to literary nonfiction (e.g. "Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims").	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members will use research to draw conclusions about their team experience, robot building, coach/mentor, or goals/objectives.

College and Career Readiness Anchor Standards for Writing	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.	Writing	Range of Writing	W.7.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	As part of *FIRST®* Tech Challenge, students will write for differing periods of time ranging from note taking to formal extended writing to produce a variety of pieces including, but not limited to: team Engineering Notebook, business plan, fundraising information, outreach displays, Compass Award video, and Promote Award video.
College and Career Readiness Anchor Standards for Speaking and Listening	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.	Speaking & Listening	Comprehension and Collaboration	SL.7.1.A	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. 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.	Throughout the process of participating in the *FIRST®* Tech Challenge, students will participate in multiple discussions where they have to review material beforehand to appropriately discuss the topics presented.
College and Career Readiness Anchor Standards for Speaking and Listening	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.	Speaking & Listening	Comprehension and Collaboration	SL.7.1.B	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. b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.	Throughout the process of participating in the *FIRST®* Tech Challenge, students will participate in multiple discussions where they have to follow agreed upon rules and carry out assigned roles and responsibilities.
College and Career Readiness Anchor Standards for Speaking and Listening	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.	Speaking & Listening	Comprehension and Collaboration	SL.7.1.C	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. 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.	Throughout the process of participating in the *FIRST®* Tech Challenge, students will ask and answer questions during discussions.
College and Career Readiness Anchor Standards for Speaking and Listening	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.	Speaking & Listening	Comprehension and Collaboration	SL.7.1.D	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. d. Acknowledge new information expressed by others and, when warranted, modify their own views.	Throughout the process of participating in the *FIRST®* Tech Challenge, students will explain their ideas and consider ideas expressed by their peers as part of discussions to make decisions.
College and Career Readiness Anchor Standards for Speaking and Listening	Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.	Speaking & Listening	Comprehension and Collaboration	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.	Depending upon the sources used to collect information to answer questions that may arise, students may have the opportunity to paraphrase text and information that is presented orally. This will most likely occur as part of a conversation with an expert or from a video presentation.
College and Career Readiness Anchor Standards for Speaking and Listening	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.	Speaking & Listening	Comprehension and Collaboration	SL.7.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members will frequently use technology to discuss and explain their team experience, robot building, coach/mentor, or goals/objectives.

College and Career Readiness Anchor Standards for Speaking and Listening	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.	Speaking & Listening	Presentation of Knowledge and Ideas	SL.7.4	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.	As part of fundraising, during team practice, and at culminating events, students will have to provide an organized presentation that details their work during the challenge, the choices they made, and their rationales for the decisions.
College and Career Readiness Anchor Standards for Speaking and Listening	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	Speaking & Listening	Presentation of Knowledge and Ideas	SL.7.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members will frequently use technology to discuss and explain their team experience, robot building, coach/mentor, or goals/objectives.
College and Career Readiness Anchor Standards for Speaking and Listening	Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.	Speaking & Listening	Presentation of Knowledge and Ideas	SL.7.6	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 7 Language standards 1 and 3 on page 53 for specific expectations.)	Throughout the process of participating in the *FIRST*® Tech Challenge, students will have multiple opportunities to present in a wide variety of contexts that will allow them to use both formal and informal discourse.
College and Career Readiness Anchor Standards for Language	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	Language	Conventions of Standard English	L.7.1.A	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Explain the function of phrases and clauses in general and their function in specific sentences.	Depending upon their coach/mentor or how they interact with peers, students may have the opportunity to explain how phrases and clauses function in sentences they write for various context.
College and Career Readiness Anchor Standards for Language	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	Language	Conventions of Standard English	L.7.1.B	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.	In their writing for a variety of contexts, students will vary sentence patterns to convey different meanings expressing relationships between ideas.
College and Career Readiness Anchor Standards for Language	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	Language	Conventions of Standard English	L.7.1.C	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.	In their writing for a variety of contexts, students will use phrases and clauses appropriately to avoid misplaced or dangling modifiers.
College and Career Readiness Anchor Standards for Language	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	Language	Conventions of Standard English	L.7.2.A	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Use a comma to separate coordinate adjectives (e.g., It was a fascinating, enjoyable movie but not He wore an old[,] green shirt).	In their writing for a variety of contexts, students will use commas correctly to separate coordinate adjectives.
College and Career Readiness Anchor Standards for Language	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	Language	Conventions of Standard English	L.7.2.B	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. b. Spell correctly.	In their writing for a variety of contexts, students will spell grade-appropriate words correctly.

College and Career Readiness Anchor Standards for Language	Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.	Language	Knowledge of Language	L.7.3.A	Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.	In writing and speaking throughout *FIRST®* Tech Challenge, students will have to choose appropriate language to express their ideas without being wordy or redundant.
College and Career Readiness Anchor Standards for Language	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.	Language	Vocabulary Acquisition and Use	L.7.4.A	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. 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.	While reading various texts, students will have the opportunity to use context clues to determine the meaning of unknown words.
College and Career Readiness Anchor Standards for Language	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.	Language	Vocabulary Acquisition and Use	L.7.4.B	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. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., belligerent, bellicose, rebel).	While reading various texts, students will have the opportunity to use affixes and roots to determine the meaning of unknown words.
College and Career Readiness Anchor Standards for Language	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.	Language	Vocabulary Acquisition and Use	L.7.4.C	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. c. 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.	While reading various texts, students will have the opportunity to use reference materials to clarify the meaning of words.
College and Career Readiness Anchor Standards for Language	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.	Language	Vocabulary Acquisition and Use	L.7.4.D	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. d. 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).	While reading various texts, students will have the opportunity to use reference materials to clarify the meaning of words.
College and Career Readiness Anchor Standards for Language	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	Language	Vocabulary Acquisition and Use	L.7.5.A	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.	Not Applicable
College and Career Readiness Anchor Standards for Language	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	Language	Vocabulary Acquisition and Use	L.7.5.B	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words.	Depending upon the text in question, students may analyze the relationship between words to establish the meaning for both words.

College and Career Readiness Anchor Standards for Language	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	Language	Vocabulary Acquisition and Use	L.7.5.C	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., refined, respectful, polite, diplomatic, condescending).	Depending upon the text in question, students may analyze the connotations of words with similar denotations.
College and Career Readiness Anchor Standards for Language	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 encountering an unknown term important to comprehension or expression.	Language	Vocabulary Acquisition and Use	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.	Throughout the process of participating in the *FIRST®* Tech Challenge, students will have multiple opportunities to acquire and use grade-appropriate academic as well as domain-specific words.
College and Career Readiness Anchor Standards for Reading	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.	Reading	Key Ideas and Details	RST.6-8.1	Cite specific textual evidence to support analysis of science and technical texts.	In order to develop solutions to questions that arise, students will have to accurately quote sources and draw inferences to support their position.
College and Career Readiness Anchor Standards for Reading	Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.	Reading	Key Ideas and Details	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.	As part of their writing in a variety of contexts, students will have to summarize the main idea and supporting details from informational text.
College and Career Readiness Anchor Standards for Reading	Analyze how and why individuals, events, or ideas develop and interact over the course of a text.	Reading	Key Ideas and Details	RST.6-8.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	In order to program their robot, students will need to precisely follow a multistep procedure.
College and Career Readiness Anchor Standards for Reading	Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.	Reading	Craft and Structure	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.	As part of research to answer questions that arise, students will have to determine the meanings of symbols, key terms, and domain-specific vocabulary encountered.
College and Career Readiness Anchor Standards for Reading	Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.	Reading	Craft and Structure	RST.6-8.5	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	Depending upon the text in question or if the coach/mentor chooses, students may analyze text structure to determine how the organization of information affects presentation of the topic.
College and Career Readiness Anchor Standards for Reading	Assess how point of view or purpose shapes the content and style of a text.	Reading	Craft and Structure	RST.6-8.6	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	Depending upon the text in question, or if the coach/mentor chooses, students may analyze the use of equations, procedures, or experiments.
College and Career Readiness Anchor Standards for Reading	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.	Reading	Integration of Knowledge and Ideas	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).	Depending upon the text in question or if the coach/mentor chooses, students may analyze information presented visually with the same information presented in a text form.
College and Career Readiness Anchor Standards for Reading	Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.	Reading	Integration of Knowledge and Ideas	RST.6.-8.8	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	As part of reading text to gain information for robot design and robot programming, students will identify and use appropriately facts, reasoned judgments, and speculation.

College and Career Readiness Anchor Standards for Reading	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.	Reading	Integration of Knowledge and Ideas	RST.6-8.9	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	Depending upon the topic in question or if the coach/mentor chooses, students may analyze information presented in a multimedia format with information presented in a print format.
College and Career Readiness Anchor Standards for Reading	Read and comprehend complex literary and informational texts independently and proficiently.	Reading	Range of Reading and Text Complexity	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.	As part of *FIRST®* Tech Challenge, students will read multiple age appropriate scientific and technical texts for a variety of tasks, including but not limited to: the organization and function of the team; designing, programming, and operating their robot; developing the team business plan; for fundraising information; outreach displays; or in creating the team Compass and/or Promote Award videos.
College and Career Readiness Anchor Standards for Writing	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	Writing	Text Type and Purpose	WHST.6-8.1.A	Write arguments focused on discipline-specific content. a. 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.	As part of writing for a variety of contexts, students will have to make claims and provided organized supporting evidence.
College and Career Readiness Anchor Standards for Writing	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	Writing	Text Type and Purpose	WHST.6-8.1.B	Write arguments focused on discipline-specific content. 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.	As part of writing for a variety of contexts, students will support claims made using relevant evidence and credible sources.
College and Career Readiness Anchor Standards for Writing	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	Writing	Text Type and Purpose	WHST.6-8.1.C	Write arguments focused on discipline-specific content. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.	As part of writing for a variety of contexts, students will use the correct words and phrases to establish relationships between claims and supporting reasons.
College and Career Readiness Anchor Standards for Writing	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	Writing	Text Type and Purpose	WHST.6-8.1.D	Write arguments focused on discipline-specific content. d. Establish and maintain a formal style.	As part of writing for a variety of contexts, students will make use of a formal writing style.
College and Career Readiness Anchor Standards for Writing	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	Writing	Text Type and Purpose	WHST.6-8.1.E	Write arguments focused on discipline-specific content. e. Provide a concluding statement or section that follows from and supports the argument presented.	As part of writing for a variety of contexts, students will need to include a concluding statement or section which summarizes their information or request.
College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	WHST.6-8.2.A	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. 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.	As part of writing for a variety of contexts, students will introduce their topic and provide appropriate organization and formatting as is necessary to aid in comprehension.

College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	WHST.6-8.2.B	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.	As part of writing for a variety of contexts, students will use facts, definitions, quotations, and other information as is appropriate to convey their message.
College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	WHST.6-8.2.C	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.	As part of writing for a variety of contexts, students will use transitional language to link ideas and concepts as well as convey relationships as is necessary to communicate their message.
College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	WHST.6-8.2.D	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. d. Use precise language and domain-specific vocabulary to inform about or explain the topic.	As part of writing for a variety of contexts, students will use precise language and domain-specific vocabulary as is necessary to communicate their message.
College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	WHST.6-8.2.E	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. e. Establish and maintain a formal style and objective tone.	As part of writing for a variety of contexts, students will write in a formal style.
College and Career Readiness Anchor Standards for Writing	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	Writing	Text Type and Purpose	WHST.6-8.2.F	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. f. Provide a concluding statement or section that follows from and supports the information or explanation presented.	As part of writing for a variety of contexts, students will provide a concluding statement or section to summarize their research.
College and Career Readiness Anchor Standards for Writing	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	Writing	Text Type and Purpose	WHST.6-8.3	In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.	As part of the Engineering Notebook, students will write detailed step-by-step procedures to describe how their robot is constructed or programming was created so that different students could replicate the process.
College and Career Readiness Anchor Standards for Writing	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	Writing	Production and Distribution of Writing	WHST.6-8.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	As part of the challenge, students will be expected to produce a variety of writing consistent with the appropriate grade-level writing standards.
College and Career Readiness Anchor Standards for Writing	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.	Writing	Production and Distribution of Writing	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.	As part of writing for a variety of contexts, students will revise, edit, and review their writing with peers and adults.
College and Career Readiness Anchor Standards for Writing	Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.	Writing	Production and Distribution of Writing	WHST.6-8.6	Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.	Depending on the structure and content style of their Engineering Notebook, whether the team submits a video for their League Meet (if applicable), and whether or not the team chooses to apply for a Compass or Promote Award, team members will frequently use technology to discuss and explain their team experience, robot building, coach/mentor, or goals/objectives.

College and Career Readiness Anchor Standards for Writing	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	Writing	Research to Build and Present Knowledge	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.	As part of *FIRST®* Tech Challenge, students will conduct research for a variety of tasks, including but not limited to: designing their robot, programming their robot, developing the team business plan, for fundraising information, outreach displays, and in creating the team Compass and/or Promote Award videos.
College and Career Readiness Anchor Standards for Writing	Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.	Writing	Research to Build and Present Knowledge	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.	As part of FIRST® Tech Challenge, students will conduct research using multiple sources for a variety of tasks, including but not limited to: designing their robot, programming their robot, developing the team business plan, for fundraising information, outreach displays, and in creating the team Compass and/or Promote Award videos.
College and Career Readiness Anchor Standards for Writing	Draw evidence from literary or informational texts to support analysis, reflection, and research.	Writing	Research to Build and Present Knowledge	WHST.6-8.9	Draw evidence from informational texts to support analysis reflection, and research.	As part of FIRST® Tech Challenge, students will conduct research using multiple sources for a variety of tasks, including but not limited to: designing their robot, programming their robot, developing the team business plan, for fundraising information, outreach displays, and in creating the team Compass and/or Promote Award videos.
College and Career Readiness Anchor Standards for Writing	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.	Writing	Range of Writing	WHST.6-8.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	As part of *FIRST®* Tech Challenge, students will write for differing periods of time ranging from note-taking to formal, extended writing to produce a variety of pieces, including but not limited to: team Engineering Notebook, business plan, fundraising information, outreach displays, Compass Award video, and Promote Award video.