Consolidated Standards Mapping (Grades 5-8)

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Common Core Standards Alignment (Grade 5)

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Legend

●	Standard addressed in **SeaPerch Build Guide**
○	Standard could be addressed by **additional activities during the SeaPerch build**

Reading: Literature (Grade 5)

Indicator	Indicator Statement	Addressed
RL.5.1	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.	● ○
RL.5.2	Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.	
RL.5.3	Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).	
RL.5.4	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.	
RL.5.5	Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.	
RL.5.6	Describe how a narrator's or speaker's point of view influences how events are described.	
RL.5.7	Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).	
RL.5.9	Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.	
RL.5.10	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently.	

Reading: Informational Text (Grade 5)

Indicator	Indicator Statement	Addressed
RI.5.1	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.	
RI.5.2	Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.	
RI.5.3	Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.	◉○
RI.5.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.	◉
RI.5.5	Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.	
RI.5.6	Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.	
RI.5.7	Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.	◉○
RI.5.8	Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).	◉○
RI.5.9	Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.	◉○
RI.5.10	By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.	

Speaking & Listening (Grade 5)

Indicator	Indicator Statement	Addressed
SL.5.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.	◉○
SL.5.1.A	Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.	◉○
SL.5.1.B	Follow agreed-upon rules for discussions and carry out assigned roles.	◉○
SL.5.1.C	Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.	◉○

Indicator	Indicator Statement	Addressed
SL.5.1.D	Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.	●○
SL.5.2	Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	●○
SL.5.3	Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.	●○
SL.5.4	Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	●○
SL.5.5	Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	●○
SL.5.6	Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 on page 28 for specific expectations.)	●○

Language (Grade 5)

Indicator	Indicator Statement	Addressed
L.5.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	●○
L.5.1.A	Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences	●○
L.5.1.B	Form and use the perfect (e.g., I had walked; I have walked; I will have walked) verb tenses.	●○
L.5.1.C	Use verb tense to convey various times, sequences, states, and conditions.	●○
L.5.1.D	Recognize and correct inappropriate shifts in verb tense.	●○
L.5.1.E	Use correlative conjunctions (e.g., either/or, neither/nor).	●○
L.5.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	●○
L.5.2.A	Use punctuation to separate items in a series.	
L.5.2.B	Use a comma to separate an introductory element from the rest of the sentence.	
L.5.2.C	Use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?).	

Indicator	Indicator Statement	Addressed
L.5.2.D	Use underlining, quotation marks, or italics to indicate titles of works.	
L.5.2.E	Spell grade-appropriate words correctly, consulting references as needed.	
L.5.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening.	
L.5.3.A	Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.	
L.5.3.B	Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.	
L.5.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.	◑
L.5.4.A	Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.	◑
L.5.4.B	Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis).	
L.5.4.C	Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.	◑
L.5.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	
L.5..5.A	Interpret figurative language, including similes and metaphors, in context.	
L.5.5.B	Recognize and explain the meaning of common idioms, adages, and proverbs.	
L.5.5.C	Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.	
L.5.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly moreover, in addition).	◑

Common Core Standards Alignment (Grade 6)

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Legend

⬤	Standard addressed in **SeaPerch Build Guide**
◯	Standard could be addressed by **additional activities during the SeaPerch build**

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Reading: Informational Text (Grade 6)

Indicator	Indicator Statement	Addressed
RI.6.1	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	⬤◯
RI.6.2	Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.	⬤◯
RI.6.3	Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).	⬤◯
RI.6.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.	⬤◯
RI.6.5	Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.	
RI.6.6	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.	
RI.6.7	Integrate information presented in different media or formats(e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.	⬤◯
RI.6.8	Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.	⬤◯
RI.6.9	Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person)	
RI.6.10	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.	

Speaking and Listening (Grade 6)

Indicator	Indicator Statement	Addressed
SL.6.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.	●○
SL.6.1.A	Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.	●○
SL.6.1.B	Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.	●○
SL.6.1.C	Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.	●○
SL.6.1.D	Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	●○
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.	●○
SL.6.3	Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.	
SL.6.4	Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	●○
SL.6.5	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.	●○
SL.6.6	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or. (See grade 6 Language standards 1 and 3 above for specific expectations.)	

Language (Grade 6)

Indicator	Indicator Statement	Addressed
L.6.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	●○
L.6.1.A	Ensure that pronouns are in the proper case (subjective, objective, possessive).	●○
L.6.1.B	Use intensive pronouns (e.g., myself, ourselves).	●○
L.6.1.C	Recognize and correct inappropriate shifts in pronoun number and person.	●○

Indicator	Indicator Statement	Addressed
L.6.1.D	Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).	◐○
L.6.1.E	Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.	◐○
L.6.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
L.6.2.A	Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.	
L.6.2.B	Spell correctly.	◐○
L.6.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening.	◐○
L.6.3.A	Vary sentence patterns for meaning, reader/listener interest, and style.	
L.6.3.B	Vary sentence patterns for meaning, reader/listener interest, and style.	
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.	◐○
L.6.4.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.	◐○
L.6.4.B	Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., audience, auditory, audible).	
L.6.4.C	Consult 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.	◐○
L.6.4.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).	◐○
L.6.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	
L.6.5.A	Interpret figures of speech (e.g., personification) in context.	
L.6.5.B	Use the relationship between particular words (e.g., cause/ effect, part/whole, item/category) to better understand each of the words	◐○
L.6.5.C	Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., stingy, scrimping, economical, unwasteful, thrifty).	
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.	

Reading Standards for Literacy in History/Social Studies, Science, and Technical Subjects (Grades 6-8)

Indicator	Indicator Statement	Addressed
RST.6-8.1	Cite specific textual evidence to support analysis of science and technical texts.	
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.	⬤◯
RST.6-8.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	⬤◯
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.	⬤◯
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	⬤◯
RST.6-8.6	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	⬤◯
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).	⬤◯
RST.6-8.8	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	⬤◯
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.	⬤◯
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.	

Common Core Standards Alignment (Grade 7)

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Legend

●	Standard addressed in
○	Standard could be addressed by **additional activities**

Reading: Informational Text (Grade 7)

Indicator	Indicator Statement	Addressed
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.	●○
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.	●○
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).	
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.	●○
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.	
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.	●○
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).	
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.	●○
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	●○
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	

Speaking and Listening (Grade 7)

Indicator	Indicator Statement	Addressed
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.	⬤◯
SL.7.1.A	Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.	⬤◯
SL.7.1.B	Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.	⬤◯
SL.7.1.C	Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.	⬤◯
SL.7.1.D	Acknowledge new information expressed by others and, when warranted, modify their own views.	⬤◯
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.	⬤◯
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.	⬤◯
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.	⬤◯
SL.7.5	Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points	⬤◯
SL.7.6	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.	

Language (Grade 7)

Indicator	Indicator Statement	Addressed
L.7.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	
L.7.1.A	Explain the function of phrases and clauses in general and their function in specific sentences.	
L.7.1.B	Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.	

Indicator	Indicator Statement	Addressed
L.7.1.C	Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.	
L.7.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
L.7.2.A	Use a comma to separate coordinate adjectives (e.g., It was a fascinating, enjoyable movie but not He wore an old[,] green shirt).	
L.7.2.B	Spell correctly.	◐
L.7.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening.	◐
L.7.3.A	Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy	
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.	◐
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.	◐
L.7.4.B	Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., belligerent, bellicose, rebel).	
L.7.4.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.	
L.7.4.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).	◐
L.7.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	
L.7.5.A	Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.	
L.7.5.B	Use the relationship between particular words (e.g., synonym/ antonym, analogy) to better understand each of the words.	
L.7.5.C	Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., refined, respectful, polite, diplomatic, condescending).	
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.	◐

Reading Standards for Literacy in History/Social Studies, Science, and Technical Subjects (Grades 6-8)

Indicator	Indicator Statement	Addressed
RST.6-8.1	Cite specific textual evidence to support analysis of science and technical texts.	
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.	● ○
RST.6-8.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	● ○
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.	● ○
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	● ○
RST.6-8.6	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	● ○
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).	● ○
RST.6-8.8	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	● ○
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.	● ○
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.	● ○

Common Core Standards Alignment (Grade 8)

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Legend

⬤	Standard addressed in
◯	Standard could be addressed by **additional activities**

Reading: Literature (Grade 8)

Indicator	Indicator Statement	Addressed
RL.8.1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.	⬤◯
RL.8.2	Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.	
RL.8.3	Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.	
RL.8.4	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	⬤◯
RL.8.5	Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.	⬤◯
RL.8.6	Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.	
RL.8.7	Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.	
RL.8.9	Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.	
RL.8.10	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.	
RL.8.11	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.	

Speaking and Listening (Grade 8)

Indicator	Indicator Statement	Addressed
SL.8.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.	●○
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.	●○
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	●○
SL.8.1.C	Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.	●○
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.	●○
SL.8.2	Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.	●○
SL.8.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced	●○
SL.8.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	●○
SL.8.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	●○
SL.8.6	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.	●○

Language (Grade 8)

Indicator	Indicator Statement	Addressed
L.8.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	●○
L.8.1.A	Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences.	
L.8.1.B	Form and use verbs in the active and passive voice.	

Indicator	Indicator Statement	Addressed
L.8.1.C	Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.	
L.8.1.D	Recognize and correct inappropriate shifts in verb voice and mood.	
L.8.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing	
L.8.2.A	Use punctuation (comma, ellipsis, dash) to indicate a pause or break.	
L.8.2.B	Use an ellipsis to indicate an omission.	
L.8.2.C	Spell correctly.	◉○
L.8.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening.	◉○
L.8.3.A	Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).	
L.8.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.	◉○
L.8.4.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.	◉○
L.8.4.B	Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede).	
L.8.4.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.	◉○
L.8.4.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).	◉○
L87.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	
L.8.5.A	Interpret figures of speech (e.g., verbal irony, puns) in context.	
L.8.5.B	Use the relationship between particular words to better understand each of the words.	
L.8.5.C	Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., bullheaded, willful, firm, persistent, resolute).	
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.	

Reading Standards for Literacy in History/Social Studies, Science, and Technical Subjects (Grades 6-8)

Indicator	Indicator Statement	Addressed
RST.6-8.1	Cite specific textual evidence to support analysis of science and technical texts.	●○
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.	●○
RST.6-8.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	●○
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.	●○
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	●○
RST.6-8.6	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	●○
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).	●○
RST.6-8.8	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	●○
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.	●○
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.	●○

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Common Core Standards Alignment (8th grade level)

Mathematics   *www.seaperch.org*

Legend

●	Standard addressed in
○	Standard could be addressed by **additional activities**

Mathematical Practices

Practice	Standard
MP1	Make sense of problems and persevere in solving them.
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.
MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend to precision.
MP7	Look for and make use of structure.
MP8	Look for and express regularity in repeated reasoning.

	The Number System	
8.NS.A.1	Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.	●○
8.NS.A.2	Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., pi²).	●○
	Expressions and Equations	
8.EE.A.1	Know and apply the properties of integer exponents to generate equivalent numerical expressions.	●○
8.EE.A.2	Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that the square root of 2 is irrational.	●○

8.EE.A.3	Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other.	⬤〇
8.EE.A.4	Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.	⬤〇
8.EE.B.5	Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.	⬤〇
8.EE.B.6	Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b.	⬤〇
8.EE.C.7	Solve linear equations in one variable.	⬤〇
8.EE.C.8	Analyze and solve pairs of simultaneous linear equations.	⬤〇
	Functions	
8.F.A.1	Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.	⬤〇
8.F.A.1	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	⬤〇
8.F.A.3	Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear.	⬤〇
8.F.B.4	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.	⬤〇
8.F.B.5	Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.	⬤〇
	Geometry	

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8.G.A.5	Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.	●○
8.G.B.6	Explain a proof of the Pythagorean Theorem and its converse.	●○
8.G.B.7	Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.	●○
8.G.B.8	Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.	●○
8.G.C.9	Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.	●○
	Statistics and Probability	
8.SP.A.1	Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.	●○
8.SP.A.2	Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.	●○
8.SP.A.3	Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept.	●○
8.SP.A.3	Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables.	●○

Next Generation Science Standards (MS)

Performance Expectations   *www.seaperch.org*

Legend

●	Standard addressed in
○	Standard could be addressed by **additional activities**

Matter & Its Interactions

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Indicator	Indicator Statement	Addressed
MS-PS1-1	Develop a model to describe that matter is made of particles too small to be seen.	●○
MS-PS1-2	Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.	●○
MS-PS1-3	Make observations and measurements to identify materials based on their properties.	●○

Motion & Stability: Forces & Interactions

Indicator	Indicator Statement	Addressed
MS-PS2-3	Ask questions about data to determine the factors that affect the strength of electric and magnetic forces.	●○
MS-PS2-B	Types of Interactions -Electric and magnetic (electromagnetic) forces can be attractive or repulsive, and their sizes, depend on the magnitudes of the charges, currents, or magnetic strengths involved and on the distances between the interacting objects.	●○

Energy

Indicator	Indicator Statement	Addressed
MS-PS3-4	Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.	●○

Waves and Their Applications

Indicator	Indicator Statement	Addressed
MS-PS4-2	Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.	●○

Earth's Systems

Indicator	Indicator Statement	Addressed
MS-ESS2-1	Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	●○
MS-ESS2-2	Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.	●○
MS-ESS2-5	Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.	●○

Earth & Human Activity

Indicator	Indicator Statement	Addressed
MS-ESS3-3	Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.	● ○
MS-ESS3-5	Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.	● ○

Engineering Design

Indicator	Indicator Statement	Addressed
MS-ETS1-1	Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.	● ○
MS-ETS1-2	Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.	● ○
MS-ETS1-3	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	● ○
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.	

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Next Generation Science Standards (Grade 6-8)

Performance Expectations   *www.seaperch.org*

Legend

●	Standard addressed in
○	Standard could be addressed by **additional activities**

Motion and Stability: Forces and Interactions

Indicator	Indicator Statement	Addressed

Energy

Indicator	Indicator Statement	Addressed

Indicator	Indicator Statement	Addressed
MS-PS3-3	Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.	●○
MS-PS3-4	Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.	●○
MS-PS3-5	Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.	●○

Earth & Human Activity

Indicator	Indicator Statement	Addressed
MS-ESS3-1	Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.	●○
MS-ESS3-2	Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.	●○
MS-ESS3-3	Apply scientific principles to design a method for monitoring and minimizing human impact.	●○
MS-ESS3-4	Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.	●○
MS-ESS3-5	Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.	●○

Engineering Design

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

Indicator	Indicator Statement	Addressed
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.	⬤◯

Partnership for 21st Century Learning Alignment

Student Outcomes – All Grades   *www.seaperch.org*

Legend

●	Standard addressed in
○	Standard could be addressed by **additional activities**

Core Subjects

Cluster	Indicator Statement	Addressed
Global Awareness	Use 21st century skills to understand and address global issues.	● ○
Environmental Literacy	Demonstrate knowledge and understanding of the environment and the circumstances and conditions affecting it, particularly as relates to air, climate, land, food, energy, water and ecosystems.	● ○
	Demonstrate knowledge and understanding of society's impact on the natural world (e.g., population growth, population development, resource consumption rate, etc.).	● ○
	Investigate and analyze environmental issues and make accurate conclusions about effective solutions.	● ○
	Take individual and collective action towards addressing environmental challenges (e.g., participate in global actions, designing solutions that inspire action on environmental issues).	● ○

Creativity & Innovation

Cluster	Indicator Statement	Addressed
Think Creatively	Use a wide range of idea creation techniques (such as brainstorming).	● ○
	Create new and worthwhile ideas (both incremental and radical concepts).	● ○
	Elaborate, refine, analyze, and evaluate their own ideas in order to improve and maximize creative efforts.	● ○
	Develop, implement, and communicate new ideas to others effectively.	● ○

Work Creatively with Others	Be open and responsive to new and diverse perspectives; incorporate group input and feedback into the work.	⬤◯
	Demonstrate originality and inventiveness in work and understand the real-world limits to adopting new ideas.	⬤◯
	View failure as an opportunity to learn; understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes.	⬤◯
Implement Innovations	Act on creative ideas to make a tangible and useful contribution to the field in which the innovation will occur.	⬤◯

Critical Thinking & Problem Solving

Cluster	Indicator Statement	Addressed
Reason Effectively	Use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation.	⬤◯
	Use systems thinking.	⬤◯
	Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems.	⬤◯
	Make judgments and decisions.	⬤◯
	Effectively analyze and evaluate evidence, arguments, claims, and beliefs.	⬤◯
	Analyze and evaluate major alternative points of view.	⬤◯
	Synthesize and make connections between information and arguments.	⬤◯
	Interpret information and draw conclusions based on the best analysis.	⬤◯
	Reflect critically on learning experiences and processes.	⬤◯
Solve Problems	Solve different kinds of non-familiar problems in both conventional and innovative ways.	⬤◯
	Identify and ask significant questions that clarify various points of view and lead to better solutions.	⬤◯

Communication & Collaboration

Cluster	Indicator Statement	Addressed
Communicate Clearly	Listen effectively to decipher meaning, including knowledge, values, attitudes, and intentions.	⬤◯
	Use communication for a range of purposes (e.g., to inform, instruct, motivate, and persuade).	⬤◯
	Communicate effectively in diverse environments (including multi-lingual).	⬤◯
	Collaborate with others.	⬤◯
	Demonstrate ability to work effectively and respectfully with diverse teams.	⬤◯
	Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal.	⬤◯
	Assume shared responsibility for collaborative work, and value the individual contributions made by each team member.	⬤◯

Information Literacy

Cluster	Indicator Statement	Addressed
Access & Evaluate Information	Access information efficiently (time) and effectively (sources).	⬤◯
	Evaluate information critically and competently.	⬤◯
Use & Manage Information	Use information accurately and creatively for the issue or problem at hand.	⬤◯
	Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information.	⬤◯

Flexibility & Adaptability

Cluster	Indicator Statement	Addressed
Adapt to Change	Adapt to varied roles, job responsibilities, schedules, and contexts.	⬤◯
	Work effectively in a climate of ambiguity and changing priorities.	⬤◯
Be Flexible	Incorporate feedback effectively.	⬤◯
	Deal positively with praise, setbacks, and criticism.	⬤◯

	Understand, negotiate, and balance diverse views and beliefs to reach workable solutions, particularly in multi-cultural environments.	⬤◯

Initiative & Self-Direction

Cluster	Indicator Statement	Addressed
Manage Goals & Time	Set goals with tangible and intangible success criteria.	⬤◯
	Balance tactical (short-term) and strategic (long-term) goals.	⬤◯
	Utilize time and manage workload efficiently.	⬤◯
Work Independently	Monitor, define, prioritize, and complete tasks without direct oversight.	⬤◯
	Be self-directed learners.	⬤◯
	Go beyond basic mastery of skills and/or curriculum to explore and expand one's own learning and opportunities to gain expertise.	⬤◯
	Demonstrate initiative to advance skill levels towards a professional level.	⬤◯
	Demonstrate commitment to learning as a lifelong process.	⬤◯
	Reflect critically on past experiences in order to inform future progress.	⬤◯

Social & Cross-Cultural Skills

Cluster	Indicator Statement	Addressed
Interact Effectively with Others	Know when it is appropriate to listen and when to speak.	⬤◯
	Conduct themselves in a respectable, professional manner.	⬤◯
Work Effectively in Diverse Teams	Respect cultural differences and work effectively with people from a range of social and cultural backgrounds.	⬤◯
	Respond open-mindedly to different ideas and values.	⬤◯
	Leverage social and cultural differences to create new ideas and increase both innovation and quality of work.	⬤◯

Productivity & Accountability

Cluster	Indicator Statement	Addressed
Manage Projects	Set and meet goals, even in the face of obstacles and competing pressures.	●○
	Prioritize, plan, and manage work to achieve the intended result.	●○
21st Century Standards	Engage students with the real-world data, tools, and experts they will encounter in college, on the job, and in life; students learn best when actively engaged in solving meaningful problems.	●○
	Allow for multiple measures of mastery.	●○
Assessment of 21st Century Skills	Emphasize useful feedback on student performance that is embedded into everyday learning.	●○
21st Century Curriculum & Instruction	Teach 21st century skills discretely in the context of key subjects and 21st century interdisciplinary themes.	●○
	Focus on providing opportunities for applying 21st century skills across content areas and for a competency-based approach to learning.	●○
	Enable innovative learning methods that integrate the use of supportive technologies, inquiry- and problem-based approaches and higher order thinking skills.	●○
	Encourage the integration of community resources beyond school walls.	●○
21st Century Professional Development	Highlight ways teachers can seize opportunities for integrating 21st century skills, tools, and teaching strategies into their classroom practice — and help them identify what activities they can replace/de-emphasize.	●○
	Balance direct instruction with project-oriented teaching methods.	●○
	Illustrate how a deeper understanding of subject matter can actually enhance problem-solving, critical thinking, and other 21st century skills.	●○
	Enable 21st century professional learning communities for teachers that model the kinds of classroom learning that best promotes 21st century skills for students.	●○
	Cultivate teachers' ability to identify students' particular learning styles, intelligences, strengths, and weaknesses.	●○

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Cluster	Indicator Statement	Addressed
Produce Results	Demonstrate additional attributes associated with producing high quality products including the abilities to: Work positively and ethically; manage time and projects effectively; multi-task; participate actively, as well as be reliable and punctual; present oneself professionally and with proper etiquette; collaborate and cooperate effectively with teams; respect and appreciate team diversity; and, be accountable for results.	◉○

Leadership & Responsibility

Cluster	Indicator Statement	Addressed
Guide & Lead Others	Use interpersonal and problem-solving skills to influence and guide others toward a goal.	◉○
	Leverage strengths of others to accomplish a common goal.	◉○
	Inspire others to reach their very best via example and selflessness.	◉○
	Demonstrate integrity and ethical behavior in using influence and power.	◉○
Be Responsible to Others	Act responsibly with the interests of the larger community in mind.	◉○
	Help teachers develop their abilities to use various strategies (such as formative assessments) to reach diverse students and create environments that support differentiated teaching and learning.	◉○
	Support the continuous evaluation of students' 21st century skills development.	◉○
	Encourage knowledge sharing among communities of practitioners, using face-to-face, virtual, and blended communications.	◉○
	Use a scalable and sustainable model of professional development.	◉○
21st Century Learning Environments	Create learning practices, human support, and physical environments that will support the teaching and learning of 21st century skill outcomes.	◉○
	Support professional learning communities that enable educators to collaborate, share best practices, and integrate 21st century skills into classroom practice.	◉○
	Enable students to learn in relevant, real-world 21st century contexts (e.g., through project-based or other applied work).	◉○
	Allow equitable access to quality learning tools, technologies, and resources.	◉○

Cluster	Indicator Statement	Addressed
	Provide 21st century architectural and interior designs for group, team, and individual learning.	●○
	Support expanded community and international involvement in learning, both face-to-face and online.	●○