

**Main Criteria:** Cogent Education's Interactive Cases  
**Secondary Criteria:** New Hampshire Curriculum Frameworks  
**Subject:** Science  
**Grades:** 9, 10, 11, 12



Title	Common Among States	New Hampshire Curriculum Frameworks	New Hampshire Curriculum Frameworks	New Hampshire Curriculum Frameworks	New Hampshire Curriculum Frameworks
Action Potential -	NH	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; 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<p>S:SP54:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p> <p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p> <p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p> <p>S:LS1:11:2.8. - Living Things and Organization: Students will use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA transport, nerve cells).</p> <p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p> <p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p> <p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>S:SP54:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; 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include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>
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<p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; 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include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
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Cellular Respiration -	NH	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:4.1. - Representing and Understanding Results of Investigations: Students will apply skills from previous grades and compile and display data, evidence and information by hand and computer, in a variety of formats, including diagrams, flow charts, tables, graphs and scatter plots.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.3. - Nature of Science: Students will apply skills from previous grades and recognize that sometimes scientists can control conditions in order to focus on the effect of a single variable; when that is not possible for practical or ethical reasons, they try to observe as wide a range of natural occurrences as possible to be able to discern patterns.</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:4.1. - Representing and Understanding Results of Investigations: Students will apply skills from previous grades and compile and display data, evidence and information by hand and computer, in a variety of formats, including diagrams, flow charts, tables, graphs and scatter plots.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.3. - Nature of Science: Students will apply skills from previous grades and recognize that sometimes scientists can control conditions in order to focus on the effect of a single variable; 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<p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:4.2. - Patterns of Change: Students will apply skills from previous grades and describe how graphs and equations are useful (and often equivalent) ways for depicting and analyzing patterns of change.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:2.4. - Living Things and Organization: Students will explain how the processes of photosynthesis and cellular respiration are interrelated and contribute to biogeochemical cycles.</p> <p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p>	<p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:4.2. - 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Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>
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include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
<p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p> <p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p>	<p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p> <p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p>	<p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p> <p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p>	<p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>
<p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>

		<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. 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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.</p> <p>WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	
Diffusion -	NH	NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills	NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills	NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills	NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills

<p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p>	<p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p>	<p>S:SPS1:11:2.1. - 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Making Observations and Asking Questions: Students will apply skills from previous grades and define and delimit problems to facilitate investigation.</p> <p>S:SPS1:12:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and identify the theoretical basis of an investigation and develop a prediction and a hypothesis that are consistent with the theoretical basis.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:12:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:12:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:12:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:12:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:12:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:12:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:12:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:12:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>
<p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p>	<p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; 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<p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p>	<p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p>	<p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
<p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p> <p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p> <p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p>	<p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p> <p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p> <p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p>	<p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p> <p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p> <p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p>	<p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
<p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>	<p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>	<p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p> <p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>	<p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p>	<p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>

<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. 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The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
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Filtration -	NH	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:4.1. - Representing and Understanding Results of Investigations: Students will apply skills from previous grades and compile and display data, evidence and information by hand and computer, in a variety of formats, including diagrams, flow charts, tables, graphs and scatter plots.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:4.2. - Patterns of Change: Students will apply skills from previous grades and describe how graphs and equations are useful (and often equivalent) ways for depicting and analyzing patterns of change.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:4.1. - Representing and Understanding Results of Investigations: Students will apply skills from previous grades and compile and display data, evidence and information by hand and computer, in a variety of formats, including diagrams, flow charts, tables, graphs and scatter plots.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:4.2. - Patterns of Change: Students will apply skills from previous grades and describe how graphs and equations are useful (and often equivalent) ways for depicting and analyzing patterns of change.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:4.1. - Representing and Understanding Results of Investigations: Students will apply skills from previous grades and compile and display data, evidence and information by hand and computer, in a variety of formats, including diagrams, flow charts, tables, graphs and scatter plots.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:4.2. - Patterns of Change: Students will apply skills from previous grades and describe how graphs and equations are useful (and often equivalent) ways for depicting and analyzing patterns of change.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:12:1.1. - Making Observations and Asking Questions: Students will apply skills from previous grades and define and delimit problems to facilitate investigation.</p> <p>S:SPS1:12:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and identify the theoretical basis of an investigation and develop a prediction and a hypothesis that are consistent with the theoretical basis.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:12:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:12:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:12:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:12:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:12:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:12:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:12:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>

<p>S:SP54:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SP54:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SP54:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p> <p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p> <p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p> <p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>	<p>S:SP54:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SP54:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SP54:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; 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include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>
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<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>
<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>	<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>	<p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p>	<p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
<p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p>	<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p>
<p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p>	<p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p>	
<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>	
<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>	<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>	
<p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	
<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	
<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	
<p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	<p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	<p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	
<p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	
<p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p>	<p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p>	<p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	
<p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>	
<p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p>	<p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>	

		<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	
Membrane Potential -	NH	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:12:1.1. - Making Observations and Asking Questions: Students will apply skills from previous grades and define and delimit problems to facilitate investigation.</p> <p>S:SPS1:12:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and identify the theoretical basis of an investigation and develop a prediction and a hypothesis that are consistent with the theoretical basis.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:12:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:12:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:12:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:12:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:12:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p>

<p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>S:SPS4:12:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:12:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p>
<p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>	<p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>	<p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>	<p>S:SPS4:12:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p>
<p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p>	<p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p>	<p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p>	<p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>
<p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p>	<p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p>	<p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p>	<p>- Key Ideas and Details</p>
<p>S:SPS4:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p>	<p>S:SPS4:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p>	<p>S:SPS4:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p>
<p>S:SPS4:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p>	<p>S:SPS4:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p>	<p>S:SPS4:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p>	<p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p>
<p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p>	<p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p>	<p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p>	<p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p>
<p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p>	<p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p>	<p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p>	<p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p>
<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p>	<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p>	<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p>	<p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p>
<p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p>	<p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p>	<p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>
<p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p>	<p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p>	<p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>
<p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p>	<p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p>	<p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p>	<p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
<p>S:LS1:11:2.8. - Living Things and Organization: Students will use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA transport, nerve cells).</p>	<p>S:LS1:11:2.8. - Living Things and Organization: Students will use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA transport, nerve cells).</p>	<p>S:LS1:11:2.8. - Living Things and Organization: Students will use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA transport, nerve cells).</p>	<p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>
<p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p>	<p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p>	<p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>

<p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p>	<p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p>	<p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p>	<p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>
<p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p>	<p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p>	<p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p>	<p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>
<p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>
<p>- Key Ideas and Details</p>	<p>- Key Ideas and Details</p>	<p>- Key Ideas and Details</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>
<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>
<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p>	<p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
<p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p>	<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p>
<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>
<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>	<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
<p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>
<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>
<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>



		<p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. 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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.</p> <p>WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	
Membrane Transport -	NH	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:12:1.1. - Making Observations and Asking Questions: Students will apply skills from previous grades and define and delimit problems to facilitate investigation.</p> <p>S:SPS1:12:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and identify the theoretical basis of an investigation and develop a prediction and a hypothesis that are consistent with the theoretical basis.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:12:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p>

<p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p>	<p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p>	<p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p>	<p>S:SPS3:12:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:12:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:12:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p>
<p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>S:SPS4:12:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:12:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:12:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p>
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Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p>	<p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:11:4.1. - 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Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p>

<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p> <p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p> <p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p> <p>S:LS1:11:2.8. - Living Things and Organization: Students will use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA transport, nerve cells).</p> <p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p> <p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p> <p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p> <p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p> <p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p> <p>S:LS1:11:2.8. - Living Things and Organization: Students will use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA transport, nerve cells).</p> <p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p> <p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p> <p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; 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include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p>
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<p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>	<p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
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Nitrogen Cycle -	NH	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:1.7. - Nature of Science: Students will apply skills from previous grades and realize that in science, the testing, revising, and occasional discarding of theories, new and old, never ends; this ongoing process leads to an increasingly better understanding of how things work in the world but not to absolute truth.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; 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but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:1.7. - Nature of Science: Students will apply skills from previous grades and realize that in science, the testing, revising, and occasional discarding of theories, new and old, never ends; this ongoing process leads to an increasingly better understanding of how things work in the world but not to absolute truth.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:12:1.1. - Making Observations and Asking Questions: Students will apply skills from previous grades and define and delimit problems to facilitate investigation.</p> <p>S:SPS1:12:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and identify the theoretical basis of an investigation and develop a prediction and a hypothesis that are consistent with the theoretical basis.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:12:1.4. - Nature of Science: Students will apply skills from previous grades and know that from time to time, major shifts occur in the scientific view of how the world works; more often, however, the changes that take place in the body of scientific knowledge are small modifications of prior knowledge (change and continuity are persistent features of science).</p> <p>S:SPS2:12:1.5. - Nature of Science: Students will apply skills from previous grades and recognize that evidence for the value of testing, revising and discarding theories is given by the improving ability of scientists to offer reliable explanations and make accurate predictions.</p> <p>S:SPS2:12:4.1. - Patterns of Change: Students will apply skills from previous grades and give examples of how in many physical, biological and social systems, changes in one direction tend to produce opposing (but somewhat delayed) influences, leading to repetitive cycles of behavior.</p> <p>S:SPS2:12:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:12:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:12:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>

<p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SP54. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SP54. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SP54. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>S:SPS4:12:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p>
<p>S:SP54:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>	<p>S:SP54:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>	<p>S:SP54:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>	<p>S:SP54:12:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p>
<p>S:SP54:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p>	<p>S:SP54:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p>	<p>S:SP54:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p>	<p>S:SP54:12:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p>
<p>S:SP54:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p>	<p>S:SP54:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p>	<p>S:SP54:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p>	<p>S:SP54:12:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p>
<p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p>	<p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p>	<p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p>	<p>S:SP54:12:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p>
<p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p>	<p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p>	<p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p>	<p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>
<p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p>	<p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p>	<p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p>	<p>- Key Ideas and Details</p>
<p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p>	<p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p>	<p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p>
<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p>	<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p>	<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p>	<p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p>
<p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p>	<p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p>	<p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p>	<p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p>
<p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p>	<p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p>	<p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p>	<p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p>
<p>NH.LS2. - Life Science: Energy flows and matter recycles through an ecosystem.</p>	<p>NH.LS2. - Life Science: Energy flows and matter recycles through an ecosystem.</p>	<p>NH.LS2. - Life Science: Energy flows and matter recycles through an ecosystem.</p>	<p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p>
<p>S:LS2:11:1.4. - Environment: Students will analyze and describe how environmental disturbances, such as climate changes, natural events, human activity and the introduction of invasive species, can affect the flow of energy or matter in an ecosystem.</p>	<p>S:LS2:11:1.4. - Environment: Students will analyze and describe how environmental disturbances, such as climate changes, natural events, human activity and the introduction of invasive species, can affect the flow of energy or matter in an ecosystem.</p>	<p>S:LS2:11:1.4. - Environment: Students will analyze and describe how environmental disturbances, such as climate changes, natural events, human activity and the introduction of invasive species, can affect the flow of energy or matter in an ecosystem.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>
<p>S:LS2:11:3.1. - Recycling of Materials: Students will explain that as matter and energy flow through different levels of organization in living systems and between living systems and the environment, elements, such as carbon and nitrogen, are recombined in different ways.</p>	<p>S:LS2:11:3.1. - Recycling of Materials: Students will explain that as matter and energy flow through different levels of organization in living systems and between living systems and the environment, elements, such as carbon and nitrogen, are recombined in different ways.</p>	<p>S:LS2:11:3.1. - Recycling of Materials: Students will explain that as matter and energy flow through different levels of organization in living systems and between living systems and the environment, elements, such as carbon and nitrogen, are recombined in different ways.</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>
			<p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>

<p>S:LS2:11:3.2. - Recycling of Materials: Students will trace the cycling of matter (e.g., carbon cycle) and the flow of energy in a living system from its source through its transformation in cellular, biochemical processes (e.g., photosynthesis, cellular respiration, fermentation).</p> <p>NH.LS3. - Life Science: Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).</p> <p>S:LS3:11:1.1. - Change: Students will identify ways humans can impact and alter the stability of ecosystems, such as habitat destruction, pollution, and consumption of resources; and describe the potentially irreversible effects these changes can cause.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>S:LS2:11:3.2. - Recycling of Materials: Students will trace the cycling of matter (e.g., carbon cycle) and the flow of energy in a living system from its source through its transformation in cellular, biochemical processes (e.g., photosynthesis, cellular respiration, fermentation).</p> <p>NH.LS3. - Life Science: Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).</p> <p>S:LS3:11:1.1. - Change: Students will identify ways humans can impact and alter the stability of ecosystems, such as habitat destruction, pollution, and consumption of resources; and describe the potentially irreversible effects these changes can cause.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>S:LS2:11:3.2. - Recycling of Materials: Students will trace the cycling of matter (e.g., carbon cycle) and the flow of energy in a living system from its source through its transformation in cellular, biochemical processes (e.g., photosynthesis, cellular respiration, fermentation).</p> <p>NH.LS3. - Life Science: Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).</p> <p>S:LS3:11:1.1. - Change: Students will identify ways humans can impact and alter the stability of ecosystems, such as habitat destruction, pollution, and consumption of resources; and describe the potentially irreversible effects these changes can cause.</p> <p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>
<p>- Key Ideas and Details</p>	<p>- Key Ideas and Details</p>	<p>- Key Ideas and Details</p>	<p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>
<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p>	<p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>
<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>	<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>	<p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>
<p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>
<p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p>	<p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p>
<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	

		<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	
Osmosis -	NH	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:12:1.1. - Making Observations and Asking Questions: Students will apply skills from previous grades and define and delimit problems to facilitate investigation.</p> <p>S:SPS1:12:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and identify the theoretical basis of an investigation and develop a prediction and a hypothesis that are consistent with the theoretical basis.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:12:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p>



<p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p>	<p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p>	<p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p>	<p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:12:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>
<p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p>	<p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p>	<p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p>	<p>S:SPS4:12:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p>
<p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p>	<p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p>	<p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p>	<p>S:SPS4:12:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:12:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:12:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:12:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p>
<p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p>	<p>S:SPS4:12:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>
<p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>	<p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>	<p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>	<p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>
<p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p>	<p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p>	<p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p>	<p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p>

<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p> <p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p> <p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p> <p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p> <p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p> <p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p> <p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; 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include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p>
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WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.

WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.

WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.

WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.

WHST.9-10.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.

WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

WHST.9-10.3 - (See note; not applicable as a separate requirement)

WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.

WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.

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WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

WHST.9-10.3 - (See note; not applicable as a separate requirement)

WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.

WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

WHST.11-12.1 - Write arguments focused on discipline-specific content.

WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.

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WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.

WHST.11-12.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

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WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.

WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).

WHST.11-12.3 - (See note; not applicable as a separate requirement)

WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.

WHST.11-12.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

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Photosynthesis -	NH	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:4.1. - Representing and Understanding Results of Investigations: Students will apply skills from previous grades and compile and display data, evidence and information by hand and computer, in a variety of formats, including diagrams, flow charts, tables, graphs and scatter plots.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.3. - Nature of Science: Students will apply skills from previous grades and recognize that sometimes scientists can control conditions in order to focus on the effect of a single variable; when that is not possible for practical or ethical reasons, they try to observe as wide a range of natural occurrences as possible to be able to discern patterns.</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:1.7. - Nature of Science: Students will apply skills from previous grades and realize that in science, the testing, revising, and occasional discarding of theories, new and old, never ends; this ongoing process leads to an increasingly better understanding of how things work in the world but not to absolute truth.</p> <p>S:SPS2:11:4.2. - Patterns of Change: Students will apply skills from previous grades and describe how graphs and equations are useful (and often equivalent) ways for depicting and analyzing patterns of change.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:4.1. - Representing and Understanding Results of Investigations: Students will apply skills from previous grades and compile and display data, evidence and information by hand and computer, in a variety of formats, including diagrams, flow charts, tables, graphs and scatter plots.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.3. - Nature of Science: Students will apply skills from previous grades and recognize that sometimes scientists can control conditions in order to focus on the effect of a single variable; when that is not possible for practical or ethical reasons, they try to observe as wide a range of natural occurrences as possible to be able to discern patterns.</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:1.7. - Nature of Science: Students will apply skills from previous grades and realize that in science, the testing, revising, and occasional discarding of theories, new and old, never ends; this ongoing process leads to an increasingly better understanding of how things work in the world but not to absolute truth.</p> <p>S:SPS2:11:4.2. - Patterns of Change: Students will apply skills from previous grades and describe how graphs and equations are useful (and often equivalent) ways for depicting and analyzing patterns of change.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:4.1. - Representing and Understanding Results of Investigations: Students will apply skills from previous grades and compile and display data, evidence and information by hand and computer, in a variety of formats, including diagrams, flow charts, tables, graphs and scatter plots.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:11:1.3. - Nature of Science: Students will apply skills from previous grades and recognize that sometimes scientists can control conditions in order to focus on the effect of a single variable; when that is not possible for practical or ethical reasons, they try to observe as wide a range of natural occurrences as possible to be able to discern patterns.</p> <p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:1.7. - Nature of Science: Students will apply skills from previous grades and realize that in science, the testing, revising, and occasional discarding of theories, new and old, never ends; this ongoing process leads to an increasingly better understanding of how things work in the world but not to absolute truth.</p> <p>S:SPS2:11:4.2. - Patterns of Change: Students will apply skills from previous grades and describe how graphs and equations are useful (and often equivalent) ways for depicting and analyzing patterns of change.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p> <p>S:SPS1:12:1.1. - Making Observations and Asking Questions: Students will apply skills from previous grades and define and delimit problems to facilitate investigation.</p> <p>S:SPS1:12:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and identify the theoretical basis of an investigation and develop a prediction and a hypothesis that are consistent with the theoretical basis.</p> <p>S:SPS1:12:3.1. - Conducting Scientific Investigations: Students will apply skills from previous grades and carry out procedures controlling major variables and adapting or extending procedures where required.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:12:1.4. - Nature of Science: Students will apply skills from previous grades and know that from time to time, major shifts occur in the scientific view of how the world works; more often, however, the changes that take place in the body of scientific knowledge are small modifications of prior knowledge (change and continuity are persistent features of science).</p> <p>S:SPS2:12:1.5. - Nature of Science: Students will apply skills from previous grades and recognize that evidence for the value of testing, revising and discarding theories is given by the improving ability of scientists to offer reliable explanations and make accurate predictions.</p> <p>S:SPS2:12:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>S:SPS2:12:5.6. - Form and Function: Students will apply skills from previous grades and demonstrate that a variety of biological, chemical and physical phenomena can be explained by changes in the arrangement and motion of atoms and molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:12:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:12:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p>

<p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:1.3. - Classification: Students will identify plants and animals according to binomial nomenclature.</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.4. - Living Things and Organization: Students will explain how the processes of photosynthesis and cellular respiration are interrelated and contribute to biogeochemical cycles.</p> <p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p>	<p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:1.3. - Classification: Students will identify plants and animals according to binomial nomenclature.</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.4. - Living Things and Organization: Students will explain how the processes of photosynthesis and cellular respiration are interrelated and contribute to biogeochemical cycles.</p> <p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p>	<p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:1.3. - Classification: Students will identify plants and animals according to binomial nomenclature.</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.4. - Living Things and Organization: Students will explain how the processes of photosynthesis and cellular respiration are interrelated and contribute to biogeochemical cycles.</p> <p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p>	<p>S:SPS4:12:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:12:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:12:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:12:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:12:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
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<p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p> <p>S:LS1:11:2.8. - Living Things and Organization: Students will use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA transport, nerve cells).</p> <p>NH.LS2. - Life Science: Energy flows and matter recycles through an ecosystem.</p> <p>S:LS2:11:1.4. - Environment: Students will analyze and describe how environmental disturbances, such as climate changes, natural events, human activity and the introduction of invasive species, can affect the flow of energy or matter in an ecosystem.</p> <p>S:LS2:11:3.2. - Recycling of Materials: Students will trace the cycling of matter (e.g., carbon cycle) and the flow of energy in a living system from its source through its transformation in cellular, biochemical processes (e.g., photosynthesis, cellular respiration, fermentation).</p> <p>NH.LS3. - Life Science: Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).</p> <p>S:LS3:11:1.1. - Change: Students will identify ways humans can impact and alter the stability of ecosystems, such as habitat destruction, pollution, and consumption of resources; and describe the potentially irreversible effects these changes can cause.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p> <p>S:LS1:11:2.8. - Living Things and Organization: Students will use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA transport, nerve cells).</p> <p>NH.LS2. - Life Science: Energy flows and matter recycles through an ecosystem.</p> <p>S:LS2:11:1.4. - Environment: Students will analyze and describe how environmental disturbances, such as climate changes, natural events, human activity and the introduction of invasive species, can affect the flow of energy or matter in an ecosystem.</p> <p>S:LS2:11:3.2. - Recycling of Materials: Students will trace the cycling of matter (e.g., carbon cycle) and the flow of energy in a living system from its source through its transformation in cellular, biochemical processes (e.g., photosynthesis, cellular respiration, fermentation).</p> <p>NH.LS3. - Life Science: Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).</p> <p>S:LS3:11:1.1. - Change: Students will identify ways humans can impact and alter the stability of ecosystems, such as habitat destruction, pollution, and consumption of resources; and describe the potentially irreversible effects these changes can cause.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p> <p>S:LS1:11:2.8. - Living Things and Organization: Students will use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA transport, nerve cells).</p> <p>NH.LS2. - Life Science: Energy flows and matter recycles through an ecosystem.</p> <p>S:LS2:11:1.4. - Environment: Students will analyze and describe how environmental disturbances, such as climate changes, natural events, human activity and the introduction of invasive species, can affect the flow of energy or matter in an ecosystem.</p> <p>S:LS2:11:3.2. - Recycling of Materials: Students will trace the cycling of matter (e.g., carbon cycle) and the flow of energy in a living system from its source through its transformation in cellular, biochemical processes (e.g., photosynthesis, cellular respiration, fermentation).</p> <p>NH.LS3. - Life Science: Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).</p> <p>S:LS3:11:1.1. - Change: Students will identify ways humans can impact and alter the stability of ecosystems, such as habitat destruction, pollution, and consumption of resources; and describe the potentially irreversible effects these changes can cause.</p> <p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p> <p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
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	<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills</p>
Synaptic Transmission - NH	NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills	NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills	NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills	NH.SPS1. - Science Process Skills: Scientific Inquiry and Critical Thinking Skills

<p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p>	<p>S:SPS1:11:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and apply scientific theories and laws to new situations to generate hypotheses.</p> <p>S:SPS1:11:2.2. - Designing Scientific Investigations: Students will apply skills from previous grades and state a hypothesis and prediction based on available evidence and background information.</p> <p>S:SPS1:11:3.3. - Conducting Scientific Investigations: Students will apply skills from previous grades and compile and organize data, using appropriate units.</p> <p>S:SPS1:11:5.1. - Evaluating Scientific Explanations: Students will apply skills from previous grades and explain how data support or refute the hypothesis or prediction.</p> <p>S:SPS1:11:5.2. - Evaluating Scientific Explanations: Students will apply skills from previous grades and provide a statement that addresses and answers the question investigated in light of the evidence generated in the investigation.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p>	<p>S:SPS1:11:2.1. - 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Making Observations and Asking Questions: Students will apply skills from previous grades and define and delimit problems to facilitate investigation.</p> <p>S:SPS1:12:2.1. - Designing Scientific Investigations: Students will apply skills from previous grades and identify the theoretical basis of an investigation and develop a prediction and a hypothesis that are consistent with the theoretical basis.</p> <p>NH.SPS2. - Science Process Skills: Unifying Concepts of Science</p> <p>S:SPS2:12:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:12:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:12:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:12:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:12:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p> <p>S:SPS4:12:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SPS4:12:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SPS4:12:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.CC.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>
<p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; but a close match does not mean that the model is the only 'true' model or the one that would work.</p> <p>S:SPS2:11:5.5. - Form and Function: Students will apply skills from previous grades and discover how the shape of large molecules affects the interaction with other molecules.</p> <p>NH.SPS3. - Science Process Skills: Personal, Social, and Technological Perspectives</p> <p>S:SPS3:11:2.7. - Common Environmental Issues, Natural Resources Management and Conservation: Students will apply skills from previous grades and use to evidence and logic in developing proposed explanations that address their initial questions and hypotheses.</p> <p>NH.SPS4. - Science Process Skills: Science Skills for Information, Communication and Media Literacy</p> <p>S:SPS4:11:2.2. - Communication Skills: Students will apply skills from previous grades and create written reports and journals to share and communicate scientific ideas, plans, results, and conclusions resulting from observations and investigations.</p> <p>S:SPS4:11:3.2. - Critical Thinking and Systems Thinking: Students will apply skills from previous grades and generate solutions to scientific questions and challenges through developing, modeling and revising investigations.</p> <p>S:SPS4:11:4.1. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and formulate scientific questions about an issue and define experimental procedures for finding answers.</p>	<p>S:SPS2:11:1.4. - Nature of Science: Students will apply skills from previous grades and show how hypotheses are widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available).</p> <p>S:SPS2:11:1.6. - Nature of Science: Students will apply skills from previous grades and show how the usefulness of a model can be tested by comparing its predictions to actual observations in the real world; 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<p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; and explain how this regulation allows cells to respond to their environment and to control and coordinate cell growth and division.</p> <p>S:LS1:11:2.5. - Living Things and Organization: Students will describe the structures of proteins and their role in cell function.</p> <p>S:LS1:11:2.6. - Living Things and Organization: Students will describe the chemical reactions involved in cell functions using examples from the nervous, immune and endocrine systems in multicellular animals.</p> <p>S:LS1:11:2.7. - Living Things and Organization: Students will recognize that because all matter tends toward more disorganized states, living systems need a continuous input of energy to maintain their chemical and physical organizations.</p> <p>S:LS1:11:2.8. - Living Things and Organization: Students will use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA transport, nerve cells).</p> <p>NH.LS4. - Life Science: Humans are similar to other species in many ways, and yet are unique among Earth's life forms.</p> <p>S:LS4:11:1.1. - Behavior: Students will recognize that the immune system, endocrine system, and nervous system can affect the homeostasis of an organism.</p> <p>S:LS4:11:1.2. - Behavior: Students will describe how the functions of all the human body systems are interrelated at a chemical level and how they maintain homeostasis.</p> <p>S:LS4:11:3.3. - Human Identity: Students will explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.</p> <p>NH.CC.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>S:SP54:11:4.2. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and plan and conduct practical tests to solve problems or answer a question, collect and analyze data using appropriate instruments and techniques safely and accurately.</p> <p>S:SP54:11:4.3. - Problem Identification, Formulation, and Solution: Students will apply skills from previous grades and develop models and explanations to fit evidence obtained through investigations.</p> <p>S:SP54:11:6.2. - Interpersonal and Collaborative Skills: Students will apply skills from previous grades and collect, synthesize, and report information from a variety of points of view.</p> <p>NH.LS1. - Life Science: All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).</p> <p>S:LS1:11:2.2. - Living Things and Organization: Students will recognize how cell functions are regulated through changes in the activity of the functions performed by proteins, and through the selective expression of individual genes; 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include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>
<p>- Key Ideas and Details</p>	<p>- Key Ideas and Details</p>	<p>- Key Ideas and Details</p>	<p>- Key Ideas and Details</p>

<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>
<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>	<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>	<p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p>	<p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
<p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p>	<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p>
<p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>NH.CC.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p>	<p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>NH.CC.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p>	
<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>	
<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>	<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>	
<p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	
<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>	
<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	
<p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	<p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	<p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	
<p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	
<p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p>	<p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p>	<p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	
<p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>	
<p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p>	<p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>	

	<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. 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.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	
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