



Title	Common Among States	Georgia Standards	Georgia Standards	Georgia Standards	Georgia Standards
Action Potential -	GA	<p>GA.SCSH - Characteristics of Science</p> <p>SCSH3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c - Collect, organize and record appropriate data.</p> <p>SCSH3.e - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6 - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7 - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that:</p> <p>SCSH7.d - Hypotheses often cause scientists to develop new experiments that produce additional data.</p> <p>SCSH9 - The Nature of Science: Students will enhance reading in all curriculum areas by:</p> <p>SCSH9.a - Reading in all curriculum areas</p> <p>SCSH9.a.1 - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSH9.a.2 - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSH9.a.3 - Read technical texts related to various subject areas.</p> <p>SCSH9.b - Discussing books</p> <p>SCSH9.b.1 - Discuss messages and themes from books in all subject areas.</p> <p>SCSH9.b.2 - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSH9.b.3 - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSH9.b.5 - Examine author's purpose in writing.</p> <p>SCSH9.b.6 - Recognize the features of disciplinary texts.</p> <p>SCSH9.d - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH9.d.1 - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSH9.d.2 - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB - Biology</p> <p>SB1 - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.b - Explain how enzymes function as catalysts.</p> <p>GA.SAP - Human Anatomy and Physiology</p> <p>SAP1 - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.c - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3 - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.b - Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.</p> <p>SAP3.c - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>GA.CC.L9-10RST - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1 - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2 - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5 - 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>L9-10RST10 - 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>GA.SCSH - Characteristics of Science</p> <p>SCSH3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c - Collect, organize and record appropriate data.</p> <p>SCSH3.e - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6 - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7 - The Nature of Science: Students analyze how scientific knowledge is developed. 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		<p>GA.CC.W9-10HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1. - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST3. - (See note; not applicable as a separate requirement)</p> <p>W9-10HST3.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>W9-10HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>GA.CC.W9-10HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1. - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST3. - (See note; not applicable as a separate requirement)</p> <p>W9-10HST3.a. - Note: Students' narrative skills continue to grow in these grades. 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Cellular Respiration	GA	<p>GA.SCSH. - Characteristics of Science</p> <p>SCSH3. - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c. - Collect, organize and record appropriate data.</p> <p>SCSH3.d. - Graphically compare and analyze data points and/or summary statistics.</p> <p>SCSH3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7. - The Nature of Science: Students analyze how scientific knowledge is developed. 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Students will apply the following to inquiry learning practices:</p> <p>SCSH8.a. - Scientific investigators control the conditions of their experiments in order to produce valuable data.</p> <p>SCSH9. - The Nature of Science: Students will enhance reading in all curriculum areas by:</p> <p>SCSH9.a. - Reading in all curriculum areas</p>	<p>GA.SCSH. - Characteristics of Science</p> <p>SCSH3. - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c. - Collect, organize and record appropriate data.</p> <p>SCSH3.d. - Graphically compare and analyze data points and/or summary statistics.</p> <p>SCSH3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7. - The Nature of Science: Students analyze how scientific knowledge is developed. 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<p>SCSH9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSH9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSH9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSH9.b. - Discussing books</p> <p>SCSH9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSH9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSH9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSH9.b.5. - Examine author's purpose in writing.</p> <p>SCSH9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSH9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSH9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p>	<p>SCSH9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSH9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSH9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSH9.b. - Discussing books</p> <p>SCSH9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSH9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSH9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSH9.b.5. - Examine author's purpose in writing.</p> <p>SCSH9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSH9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSH9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p>	<p>SCSH9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSH9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSH9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSH9.b. - Discussing books</p> <p>SCSH9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSH9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSH9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSH9.b.5. - Examine author's purpose in writing.</p> <p>SCSH9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSH9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSH9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p>	<p>SCSH9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSH9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSH9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSH9.b. - Discussing books</p> <p>SCSH9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSH9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSH9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSH9.b.5. - Examine author's purpose in writing.</p> <p>SCSH9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSH9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSH9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p>
<p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>SB1.c. - Identify the function of the four major macromolecules (i.e., carbohydrates, proteins, lipids, nucleic acids).</p> <p>SB3. - Students will derive the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.</p> <p>SB3.a. - Explain the cycling of energy through the processes of photosynthesis and respiration.</p> <p>GA.SB0. - Botany</p> <p>SB03. - Students will explore the structures and processes necessary for the mutual survival of plants and animals.</p> <p>SB03.a. - Describe and relate plant structures (organs, tissues, cells, organelles) to plant processes (photosynthesis, respiration, transport, growth, reproduction, dispersal).</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.b. - Investigate the interdependence of the various body systems to each other and to the body as a whole.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>SAP4. - Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.</p> <p>SAP4.a. - Describe the chemical and physical mechanisms of digestion, elimination, transportation, and absorption within the body to change food and derive energy.</p> <p>SAP4.b. - Analyze, and explain the relationships between the respiratory and cardiovascular systems as they obtain oxygen needed for the oxidation of nutrients and removal of carbon dioxide.</p> <p>GA.CC.19-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2. - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5. - 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>L9-10RST10. - 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>GA.CC.W9-10HST. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>SB1.c. - Identify the function of the four major macromolecules (i.e., carbohydrates, proteins, lipids, nucleic acids).</p> <p>SB3. - Students will derive the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.</p> <p>SB3.a. - Explain the cycling of energy through the processes of photosynthesis and respiration.</p> <p>GA.SB0. - Botany</p> <p>SB03. - Students will explore the structures and processes necessary for the mutual survival of plants and animals.</p> <p>SB03.a. - Describe and relate plant structures (organs, tissues, cells, organelles) to plant processes (photosynthesis, respiration, transport, growth, reproduction, dispersal).</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.b. - Investigate the interdependence of the various body systems to each other and to the body as a whole.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>SAP4. - Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.</p> <p>SAP4.a. - Describe the chemical and physical mechanisms of digestion, elimination, transportation, and absorption within the body to change food and derive energy.</p> <p>SAP4.b. - Analyze, and explain the relationships between the respiratory and cardiovascular systems as they obtain oxygen needed for the oxidation of nutrients and removal of carbon dioxide.</p> <p>GA.CC.19-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2. - Determine the central ideas or conclusions of a text; 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summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9. - 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>L11-12RST10. - 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>GA.CC.W11-12HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1. - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>SB1.c. - Identify the function of the four major macromolecules (i.e., carbohydrates, proteins, lipids, nucleic acids).</p> <p>SB3. - Students will derive the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.</p> <p>SB3.a. - Explain the cycling of energy through the processes of photosynthesis and respiration.</p> <p>GA.SB0. - Botany</p> <p>SB03. - Students will explore the structures and processes necessary for the mutual survival of plants and animals.</p> <p>SB03.a. - Describe and relate plant structures (organs, tissues, cells, organelles) to plant processes (photosynthesis, respiration, transport, growth, reproduction, dispersal).</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.b. - Investigate the interdependence of the various body systems to each other and to the body as a whole.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>SAP4. - Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.</p> <p>SAP4.a. - Describe the chemical and physical mechanisms of digestion, elimination, transportation, and absorption within the body to change food and derive energy.</p> <p>SAP4.b. - Analyze, and explain the relationships between the respiratory and cardiovascular systems as they obtain oxygen needed for the oxidation of nutrients and removal of carbon dioxide.</p> <p>GA.CC.11-12RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1. - 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>L11-12RST2. - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9. - 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>L11-12RST10. - 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>GA.CC.W11-12HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1. - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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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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>W9-10HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>W9-10HST1. - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST3. - (See note; not applicable as a separate requirement)</p> <p>W9-10HST3.a. - Note: Students' narrative skills continue to grow in these grades. 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Diffusion -	GA	<p>GA.SCSH. - Characteristics of Science</p> <p>SCSH.3. - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c. - Collect, organize and record appropriate data.</p> <p>SCSH3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7. - The Nature of Science: Students analyze how scientific knowledge is developed. 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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>W11-12HST4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>GA.SAP - Human Anatomy and Physiology</p> <p>SAP1 - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.d. - Relate cellular metabolism and transport to homeostasis and cellular reproduction.</p> <p>SAP3 - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>SAP4 - Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.</p> <p>SAP4.a. - Describe the chemical and physical mechanisms of digestion, elimination, transportation, and absorption within the body to change food and derive energy.</p> <p>SAP4.b. - Analyze, and explain the relationships between the respiratory and cardiovascular systems as they obtain oxygen needed for the oxidation of nutrients and removal of carbon dioxide.</p> <p>SAP4.d. - Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.</p> <p>GA.CC.L11-12RST - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1 - 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>L11-12RST9 - 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>GA.CC.W11-12HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1 - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3 - (See note; not applicable as a separate requirement)</p> <p>W11-12HST3.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>W11-12HST4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
<p>Filteration -</p>	<p>GA</p>	<p>GA.SCh. - Characteristics of Science</p> <p>SCh3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCh3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCh3.c. - Collect, organize and record appropriate data.</p> <p>SCh3.d. - Graphically compare and analyze data points and/or summary statistics.</p>	<p>GA.SCh. - Characteristics of Science</p> <p>SCh3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCh3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCh3.c. - Collect, organize and record appropriate data.</p> <p>SCh3.d. - Graphically compare and analyze data points and/or summary statistics.</p>	<p>GA.SCh. - Characteristics of Science</p> <p>SCh3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCh3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCh3.c. - Collect, organize and record appropriate data.</p> <p>SCh3.d. - Graphically compare and analyze data points and/or summary statistics.</p>	<p>GA.SCh. - Characteristics of Science</p> <p>SCh3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCh3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCh3.c. - Collect, organize and record appropriate data.</p> <p>SCh3.d. - Graphically compare and analyze data points and/or summary statistics.</p>

<p>SCSh3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSh3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSh6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSh6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSh7. - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that:</p> <p>SCSh7.d. - Hypotheses often cause scientists to develop new experiments that produce additional data.</p> <p>SCSh9. - The Nature of Science: Students will enhance reading in all curriculum areas by:</p> <p>SCSh9.a. - Reading in all curriculum areas</p> <p>SCSh9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSh9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSh9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSh9.b. - Discussing books</p> <p>SCSh9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSh9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSh9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSh9.b.5. - Examine author's purpose in writing.</p> <p>SCSh9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSh9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSh9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSh9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.d. - Explain the impact of water on life processes (i.e., osmosis, diffusion).</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.b. - Investigate the interdependence of the various body systems to each other and to the body as a whole.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>SAP4. - Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.</p> <p>SAP4.a. - Describe the chemical and physical mechanisms of digestion, elimination, transportation, and absorption within the body to change food and derive energy.</p> <p>SAP4.b. - Analyze, and explain the relationships between the respiratory and cardiovascular systems as they obtain oxygen needed for the oxidation of nutrients and removal of carbon dioxide.</p> <p>SAP4.c. - Relate the role of the urinary system to regulation of body wastes (i.e. water-electrolyte balance, volume of body fluids).</p> <p>SAP4.d. - Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.</p> <p>GA.CC.19-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2. - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5. - 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>L9-10RST10. - 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>SCSh3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSh3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSh6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSh6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSh7. - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that:</p> <p>SCSh7.d. - Hypotheses often cause scientists to develop new experiments that produce additional data.</p> <p>SCSh9. - The Nature of Science: Students will enhance reading in all curriculum areas by:</p> <p>SCSh9.a. - Reading in all curriculum areas</p> <p>SCSh9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSh9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSh9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSh9.b. - Discussing books</p> <p>SCSh9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSh9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSh9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSh9.b.5. - Examine author's purpose in writing.</p> <p>SCSh9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSh9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSh9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSh9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.d. - Explain the impact of water on life processes (i.e., osmosis, diffusion).</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.b. - Investigate the interdependence of the various body systems to each other and to the body as a whole.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>SAP4. - Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.</p> <p>SAP4.a. - Describe the chemical and physical mechanisms of digestion, elimination, transportation, and absorption within the body to change food and derive energy.</p> <p>SAP4.b. - Analyze, and explain the relationships between the respiratory and cardiovascular systems as they obtain oxygen needed for the oxidation of nutrients and removal of carbon dioxide.</p> <p>SAP4.c. - Relate the role of the urinary system to regulation of body wastes (i.e. water-electrolyte balance, volume of body fluids).</p> <p>SAP4.d. - Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.</p> <p>GA.CC.19-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2. - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5. - 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>L9-10RST10. - 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>SCSh3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSh3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSh6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSh6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSh7. - The Nature of Science: Students analyze how scientific knowledge is developed. 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summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9. - 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>L11-12RST10. - 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>SCSh3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSh3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSh6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSh6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSh7. - The Nature of Science: Students analyze how scientific knowledge is developed. 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		<p>GA.CC.W9-10HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1 - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>W9-10HST2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST3 - (See note; not applicable as a separate requirement)</p> <p>W9-10HST3.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>W9-10HST4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>GA.CC.W9-10HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1 - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>W9-10HST2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST3 - (See note; not applicable as a separate requirement)</p> <p>W9-10HST3.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>W9-10HST4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>GA.CC.W11-12HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1 - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>W11-12HST2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3 - (See note; not applicable as a separate requirement)</p> <p>W11-12HST3.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>W11-12HST4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
Membrane Potential	GA	<p>GA.SCSH - Characteristics of Science</p> <p>SCSH3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c - Collect, organize and record appropriate data.</p> <p>SCSH3.e - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6 - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7 - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that:</p> <p>SCSH7.d - Hypotheses often cause scientists to develop new experiments that produce additional data.</p> <p>SCSH9 - The Nature of Science: Students will enhance reading in all curriculum areas by:</p> <p>SCSH9.a - Reading in all curriculum areas</p> <p>SCSH9.a.1 - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSH9.a.2 - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSH9.a.3 - Read technical texts related to various subject areas.</p> <p>SCSH9.b - Discussing books</p> <p>SCSH9.b.1 - Discuss messages and themes from books in all subject areas.</p> <p>SCSH9.b.2 - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSH9.b.3 - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSH9.b.5 - Examine author's purpose in writing.</p> <p>SCSH9.b.6 - Recognize the features of disciplinary texts.</p>	<p>GA.SCSH - Characteristics of Science</p> <p>SCSH3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c - Collect, organize and record appropriate data.</p> <p>SCSH3.e - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6 - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7 - The Nature of Science: Students analyze how scientific knowledge is developed. 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<p>SCSH9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSH9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.b. - Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>GA.CC.L9-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2. - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5. - 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>L9-10RST10. - 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>GA.CC.W9-10HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1. - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>SCSH9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSH9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.b. - Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>GA.CC.L9-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2. - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5. - 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>L9-10RST10. - 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>GA.CC.W9-10HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1. - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>SCSH9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>GA.CC.L11-12RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1. - 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>L11-12RST2. - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9. - 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>L11-12RST10. - 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>GA.CC.W11-12HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1. - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.b. - Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>GA.CC.L11-12RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1. - 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>L11-12RST2. - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9. - 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>L11-12RST10. - 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>GA.CC.W11-12HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1. - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>
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Membrane Transport	GA	<p>GA.SCSH. - Characteristics of Science</p> <p>SCSH3. - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c. - Collect, organize and record appropriate data.</p> <p>SCSH3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7. - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that:</p> <p>SCSH7.d. - Hypotheses often cause scientists to develop new experiments that produce additional data.</p> <p>SCSH9. - The Nature of Science: Students will enhance reading in all curriculum areas by:</p> <p>SCSH9.a. - Reading in all curriculum areas</p> <p>SCSH9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSH9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSH9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSH9.b. - Discussing books</p> <p>SCSH9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSH9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSH9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSH9.b.5. - Examine author's purpose in writing.</p> <p>SCSH9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSH9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSH9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>SB1.c. - Identify the function of the four major macromolecules (i.e., carbohydrates, proteins, lipids, nucleic acids).</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p>	<p>GA.SCSH. - Characteristics of Science</p> <p>SCSH3. - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c. - Collect, organize and record appropriate data.</p> <p>SCSH3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7. - The Nature of Science: Students analyze how scientific knowledge is developed. 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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>W9-10HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SAP3.b. - Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>GA.CC.19-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2. - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5. - 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>L9-10RST10. - 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>GA.CC.W9-10HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1. - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST3. - (See note; not applicable as a separate requirement)</p> <p>W9-10HST3.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>W9-10HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>GA.CC.L11-12RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1. - 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>L11-12RST5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9. - 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>L11-12RST10. - 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>L11-12RST9. - 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>L11-12RST10. - 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>GA.CC.W11-12HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1. - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3. - (See note; not applicable as a separate requirement)</p> <p>W11-12HST3.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>W11-12HST4. - 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>SCSh3.c. - Collect, organize and record appropriate data.</p> <p>SCSh3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSh3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSh6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSh6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSh7. - The Nature of Science: Students analyze how scientific knowledge is developed. 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Recognize that energy is not recycled in ecosystems.</p> <p>SEV1.d. - Relate the cycling of matter and the flow of energy to the Laws of Conservation of matter and energy. Identify the role and importance of decomposers in the recycling process.</p>	<p>SCSh3.c. - Collect, organize and record appropriate data.</p> <p>SCSh3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSh3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSh6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSh6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSh7. - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that:</p> <p>SCSh7.d. - Hypotheses often cause scientists to develop new experiments that produce additional data.</p> <p>SCSh9. - The Nature of Science: Students will enhance reading in all curriculum areas by:</p> <p>SCSh9.a. - Reading in all curriculum areas</p> <p>SCSh9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSh9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSh9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSh9.b. - Discussing books</p> <p>SCSh9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSh9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSh9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSh9.b.5. - Examine author's purpose in writing.</p> <p>SCSh9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSh9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSh9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSh9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>SB1.c. - Identify the function of the four major macromolecules (i.e., carbohydrates, proteins, lipids, nucleic acids).</p> <p>SB4. - Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.</p> <p>SB4.a. - Investigate the relationships among organisms, populations, communities, ecosystems, and biomes.</p> <p>SB4.b. - Explain the flow of matter and energy through ecosystems by: Arranging components of a food chain according to energy flow; Comparing the quantity of energy in the steps of an energy pyramid; Explaining the need for cycling of major nutrients (C, O, H, N, P).</p> <p>GA.SBO. - Botany</p> <p>SB05. - Students will analyze the diversity of plant adaptations and responses to environmental extremes.</p> <p>SB05.e. - Explain the role of plant processes in the biosphere (i.e. energy and cycling of major nutrients (C, O, H, N, and P)).</p> <p>GA.SEC. - Ecology</p> <p>SEC3. - Students will explore and analyze community interactions.</p> <p>SEC3.a. - Compare and contrast species interactions (e.g. predation, parasitism, mutualism, commensalism, and competition) and adaptations that have evolved in response to interspecific selective pressures.</p> <p>SEC4. - Students will analyze biogeochemical cycles and the flow of energy in ecosystems.</p> <p>SEC4.a. - Compare and contrast the carbon, water, oxygen, phosphorus, nitrogen, and sulfur cycles, describing their flow through biotic and abiotic pools, including human influences.</p> <p>SEC4.b. - Apply the first and second laws of thermodynamics and the law of conservation of matter to the flow of energy and matter in ecosystems.</p> <p>SEC5. - Students will assess the impact of human activities on the natural world, and research how ecological theory can address current issues facing our society, locally and globally.</p> <p>SEC5.a. - Describe the sources, environmental impacts, and mitigation measures for major primary and secondary pollutants.</p> <p>GA.SEV. - Environmental Science</p> <p>SEV1. - Students will investigate the flow of energy and cycling of matter within an ecosystem and relate these phenomena to human society.</p> <p>SEV1.a. - Interpret biogeochemical cycles including hydrologic, nitrogen, phosphorus, oxygen, and carbon cycles. Recognize that energy is not recycled in ecosystems.</p> <p>SEV1.d. - Relate the cycling of matter and the flow of energy to the Laws of Conservation of matter and energy. Identify the role and importance of decomposers in the recycling process.</p>	<p>SCSh3.c. - Collect, organize and record appropriate data.</p> <p>SCSh3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSh3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSh6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSh6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSh7. - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that:</p> <p>SCSh7.d. - Hypotheses often cause scientists to develop new experiments that produce additional data.</p> <p>SCSh9. - The Nature of Science: Students will enhance reading in all curriculum areas by:</p> <p>SCSh9.a. - Reading in all curriculum areas</p> <p>SCSh9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSh9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSh9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSh9.b. - Discussing books</p> <p>SCSh9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSh9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSh9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSh9.b.5. - Examine author's purpose in writing.</p> <p>SCSh9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSh9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSh9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>SB1.c. - Identify the function of the four major macromolecules (i.e., carbohydrates, proteins, lipids, nucleic acids).</p> <p>SB4. - Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.</p> <p>SB4.a. - Investigate the relationships among organisms, populations, communities, ecosystems, and biomes.</p> <p>SB4.b. - Explain the flow of matter and energy through ecosystems by: Arranging components of a food chain according to energy flow; Comparing the quantity of energy in the steps of an energy pyramid; Explaining the need for cycling of major nutrients (C, O, H, N, P).</p> <p>GA.SBO. - Botany</p> <p>SB05. - Students will analyze the diversity of plant adaptations and responses to environmental extremes.</p> <p>SB05.e. - Explain the role of plant processes in the biosphere (i.e. energy and cycling of major nutrients (C, O, H, N, and P)).</p> <p>GA.SEC. - Ecology</p> <p>SEC3. - Students will explore and analyze community interactions.</p> <p>SEC3.a. - Compare and contrast species interactions (e.g. predation, parasitism, mutualism, commensalism, and competition) and adaptations that have evolved in response to interspecific selective pressures.</p> <p>SEC4. - Students will analyze biogeochemical cycles and the flow of energy in ecosystems.</p> <p>SEC4.a. - Compare and contrast the carbon, water, oxygen, phosphorus, nitrogen, and sulfur cycles, describing their flow through biotic and abiotic pools, including human influences.</p> <p>SEC5. - Students will assess the impact of human activities on the natural world, and research how ecological theory can address current issues facing our society, locally and globally.</p> <p>SEC5.a. - Describe the sources, environmental impacts, and mitigation measures for major primary and secondary pollutants.</p> <p>GA.SEV. - Environmental Science</p> <p>SEV1. - Students will investigate the flow of energy and cycling of matter within an ecosystem and relate these phenomena to human society.</p> <p>SEV1.a. - Interpret biogeochemical cycles including hydrologic, nitrogen, phosphorus, oxygen, and carbon cycles. Recognize that energy is not recycled in ecosystems.</p> <p>SEV1.e. - Distinguish between abiotic and biotic factors in an ecosystem and describe how matter and energy move between these.</p>	<p>SCSh3.c. - Collect, organize and record appropriate data.</p> <p>SCSh3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSh3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSh6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSh6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSh7. - The Nature of Science: Students analyze how scientific knowledge is developed. 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Recognize that energy is not recycled in ecosystems.</p> <p>SEV1.d. - Relate the cycling of matter and the flow of energy to the Laws of Conservation of matter and energy. Identify the role and importance of decomposers in the recycling process.</p> <p>SEV1.e. - Distinguish between abiotic and biotic factors in an ecosystem and describe how matter and energy move between these.</p>
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<p>SEV1.e. - Distinguish between abiotic and biotic factors in an ecosystem and describe how matter and energy move between these.</p> <p>SEV2. - Students will demonstrate an understanding that the Earth is one interconnected system.</p> <p>SEV2.a. - Describe how the abiotic components (water, air, and energy) affect the biosphere.</p> <p>SEV3. - Students will describe stability and change in ecosystems.</p> <p>SEV3.e. - Describe interactions between individuals (i.e. mutualism, commensalisms, parasitism, predation, and competition).</p> <p>SEV5. - Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.</p> <p>SEV5.d. - Describe the actual and potential effects of habitat destruction, erosion, and depletion of soil fertility associated with human activities.</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.d. - Relate cellular metabolism and transport to homeostasis and cellular reproduction.</p> <p>GA.SZ. - Zoology</p> <p>SZ5. - Students will evaluate the relationships between humans and other animals.</p> <p>SZ5.a. - Describe the effects of human activities such as habitat destruction, over hunting, introduced species, and pollution on animal biodiversity.</p> <p>GA.CC.19-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2. - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5. - 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>L9-10RST10. - 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>GA.CC.W9-10HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1. - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>SEV1.e. - Distinguish between abiotic and biotic factors in an ecosystem and describe how matter and energy move between these.</p> <p>SEV2. - Students will demonstrate an understanding that the Earth is one interconnected system.</p> <p>SEV2.a. - Describe how the abiotic components (water, air, and energy) affect the biosphere.</p> <p>SEV3. - Students will describe stability and change in ecosystems.</p> <p>SEV3.e. - Describe interactions between individuals (i.e. mutualism, commensalisms, parasitism, predation, and competition).</p> <p>SEV5. - Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.</p> <p>SEV5.d. - Describe the actual and potential effects of habitat destruction, erosion, and depletion of soil fertility associated with human activities.</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.d. - Relate cellular metabolism and transport to homeostasis and cellular reproduction.</p> <p>GA.SZ. - Zoology</p> <p>SZ5. - Students will evaluate the relationships between humans and other animals.</p> <p>SZ5.a. - Describe the effects of human activities such as habitat destruction, over hunting, introduced species, and pollution on animal biodiversity.</p> <p>GA.CC.19-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2. - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5. - 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>L9-10RST10. - 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>GA.CC.W9-10HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1. - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>SEV2. - Students will demonstrate an understanding that the Earth is one interconnected system.</p> <p>SEV2.a. - Describe how the abiotic components (water, air, and energy) affect the biosphere.</p> <p>SEV3. - Students will describe stability and change in ecosystems.</p> <p>SEV3.e. - Describe interactions between individuals (i.e. mutualism, commensalisms, parasitism, predation, and competition).</p> <p>SEV5. - Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.</p> <p>SEV5.d. - Describe the actual and potential effects of habitat destruction, erosion, and depletion of soil fertility associated with human activities.</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.d. - Relate cellular metabolism and transport to homeostasis and cellular reproduction.</p> <p>GA.SZ. - Zoology</p> <p>SZ5. - Students will evaluate the relationships between humans and other animals.</p> <p>SZ5.a. - Describe the effects of human activities such as habitat destruction, over hunting, introduced species, and pollution on animal biodiversity.</p> <p>GA.CC.11-12RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1. - 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>L11-12RST2. - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9. - 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>L11-12RST10. - 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>GA.CC.W11-12HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1. - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3. - (See note; not applicable as a separate requirement)</p>	<p>SEV3. - Students will describe stability and change in ecosystems.</p> <p>SEV3.e. - Describe interactions between individuals (i.e. mutualism, commensalisms, parasitism, predation, and competition).</p> <p>SEV5. - Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.</p> <p>SEV5.d. - Describe the actual and potential effects of habitat destruction, erosion, and depletion of soil fertility associated with human activities.</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.d. - Relate cellular metabolism and transport to homeostasis and cellular reproduction.</p> <p>GA.SZ. - Zoology</p> <p>SZ5. - Students will evaluate the relationships between humans and other animals.</p> <p>SZ5.a. - Describe the effects of human activities such as habitat destruction, over hunting, introduced species, and pollution on animal biodiversity.</p> <p>GA.CC.11-12RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1. - 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>L11-12RST2. - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9. - 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>L11-12RST10. - 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>GA.CC.W11-12HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1. - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3. - (See note; 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Osmosis -	GA	<p>GA.SCSH. - Characteristics of Science</p> <p>SCSH3. - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c. - Collect, organize and record appropriate data.</p> <p>SCSH3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7. - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that: SCSH7.d. - Hypotheses often cause scientists to develop new experiments that produce additional data.</p> <p>SCSH9. - The Nature of Science: Students will enhance reading in all curriculum areas by:</p> <p>SCSH9.a. - Reading in all curriculum areas</p> <p>SCSH9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSH9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSH9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSH9.b. - Discussing books</p> <p>SCSH9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSH9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSH9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSH9.b.5. - Examine author's purpose in writing.</p> <p>SCSH9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSH9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSH9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p> <p>SB1.d. - Explain the impact of water on life processes (i.e., osmosis, diffusion).</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.d. - Relate cellular metabolism and transport to homeostasis and cellular reproduction.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>SAP4. - Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.</p> <p>SAP4.d. - Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.</p> <p>GA.CC.L9-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>GA.SCSH. - Characteristics of Science</p> <p>SCSH3. - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH3.c. - Collect, organize and record appropriate data.</p> <p>SCSH3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSH3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH7. - The Nature of Science: Students analyze how scientific knowledge is developed. 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GA.CC.W.9-10HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1 - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST3 - (See note; not applicable as a separate requirement)</p> <p>W9-10HST3.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>W9-10HST4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>- Key Ideas and Details</p> <p>L9-10RST1 - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2 - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5 - 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>L9-10RST10 - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently. 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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>W9-10HST4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>L11-12RST1 - 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>L11-12RST2 - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5 - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9 - 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>L11-12RST10 - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently. GA.CC.W.11-12HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1 - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3 - (See note; not applicable as a separate requirement)</p> <p>W11-12HST3.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>W11-12HST4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>L11-12RST5 - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9 - 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>L11-12RST10 - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently. GA.CC.W.11-12HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1 - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3 - (See note; not applicable as a separate requirement)</p> <p>W11-12HST3.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>W11-12HST4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
Photosynthesis -	GA	<p>GA.SCSH - Characteristics of Science</p> <p>SCSH.3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH.3.a - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH.3.c - Collect, organize and record appropriate data.</p> <p>SCSH.3.d - Graphically compare and analyze data points and/or summary statistics.</p> <p>SCSH.3.e - Develop reasonable conclusions based on data collected.</p> <p>SCSH.3.f - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH.6 - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH.6.a - Write clear, coherent laboratory reports related to scientific investigations.</p>	<p>GA.SCSH - Characteristics of Science</p> <p>SCSH.3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH.3.a - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH.3.c - Collect, organize and record appropriate data.</p> <p>SCSH.3.d - Graphically compare and analyze data points and/or summary statistics.</p> <p>SCSH.3.e - Develop reasonable conclusions based on data collected.</p> <p>SCSH.3.f - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH.6 - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH.6.a - Write clear, coherent laboratory reports related to scientific investigations.</p>	<p>GA.SCSH - Characteristics of Science</p> <p>SCSH.3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH.3.a - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH.3.c - Collect, organize and record appropriate data.</p> <p>SCSH.3.d - Graphically compare and analyze data points and/or summary statistics.</p> <p>SCSH.3.e - Develop reasonable conclusions based on data collected.</p> <p>SCSH.3.f - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH.6 - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH.6.a - Write clear, coherent laboratory reports related to scientific investigations.</p>	<p>GA.SCSH - Characteristics of Science</p> <p>SCSH.3 - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH.3.a - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH.3.c - Collect, organize and record appropriate data.</p> <p>SCSH.3.d - Graphically compare and analyze data points and/or summary statistics.</p> <p>SCSH.3.e - Develop reasonable conclusions based on data collected.</p> <p>SCSH.3.f - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH.6 - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH.6.a - Write clear, coherent laboratory reports related to scientific investigations.</p>

SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.
 SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.
 SCSh7. - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that:
 SCSh7.d. - Hypotheses often cause scientists to develop new experiments that produce additional data.
 SCSh8. - The Nature of Science: Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
 SCSh8.a. - Scientific investigators control the conditions of their experiments in order to produce valuable data.
 SCSh9. - The Nature of Science: Students will enhance reading in all curriculum areas by:
 SCSh9.a. - Reading in all curriculum areas
 SCSh9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
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 SCSh9.b.1. - Discuss messages and themes from books in all subject areas.
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 SCSh9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.
 SCSh9.b.5. - Examine author's purpose in writing.
 SCSh9.b.6. - Recognize the features of disciplinary texts.
 SCSh9.d. - Establishing context Explore life experiences related to subject area content.
 SCSh9.d.1. - Discuss in both writing and speaking how certain words are subject area related.
 SCSh9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.

GA.SB. - Biology

SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.

SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.
 SB1.b. - Explain how enzymes function as catalysts.

SB1.c. - Identify the function of the four major macromolecules (i.e., carbohydrates, proteins, lipids, nucleic acids).
 SB1.d. - Explain the impact of water on life processes (i.e., osmosis, diffusion).

SB3. - Students will derive the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.
 SB3.a. - Explain the cycling of energy through the processes of photosynthesis and respiration.

SB3.b. - Compare how structures and function vary between the six kingdoms (archaeobacteria, eubacteria, protists, fungi, plants, and animals).
 SB4. - Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.

SB4.d. - Assess and explain human activities that influence and modify the environment such as global warming, population growth, pesticide use, and water and power consumption.

GA.SBO. - Botany

SB01. - Students will use current plant phylogenetic principles and describe the structural changes used to delineate the plant divisions.
 SB01.c. - Use, compare, and contrast the methods and purposes of plant classification.

SB02. - Students will be able to identify and describe Georgia's major physiographic provinces and their natural plant communities.
 SB02.b. - Use taxonomic keys to identify local flora and recognize major representative groups of the southeast.
 SB03. - Students will explore the structures and processes necessary for the mutual survival of plants and animals.

SB03.a. - Describe and relate plant structures (organs, tissues, cells, organelles) to plant processes (photosynthesis, respiration, transport, growth, reproduction, dispersal).
 SB05. - Students will analyze the diversity of plant adaptations and responses to environmental extremes.

SB05.a. - Describe the diversity of plants and their adaptations in relation to differing ecosystems and changing environments, both long term (climate) and short term (seasonal and diurnal).
 SB05.e. - Explain the role of plant processes in the biosphere (i.e. energy and cycling of major nutrients (C, O, H, N, and P)).

GA.SEC. - Ecology

SECS. - Students will assess the impact of human activities on the natural world, and research how ecological theory can address current issues facing our society, locally and globally.
 SECS.a. - Describe the sources, environmental impacts, and mitigation measures for major primary and secondary pollutants.
 SECS.c. - Evaluate the causes and impacts on ecosystems of natural and anthropogenic climate change.

SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.
 SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.
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GA.SBO. - Botany

SB01. - Students will use current plant phylogenetic principles and describe the structural changes used to delineate the plant divisions.
 SB01.c. - Use, compare, and contrast the methods and purposes of plant classification.

SB02. - Students will be able to identify and describe Georgia's major physiographic provinces and their natural plant communities.
 SB02.b. - Use taxonomic keys to identify local flora and recognize major representative groups of the southeast.
 SB03. - Students will explore the structures and processes necessary for the mutual survival of plants and animals.

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 SB05.e. - Explain the role of plant processes in the biosphere (i.e. energy and cycling of major nutrients (C, O, H, N, and P)).

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 SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.
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SB3. - Students will derive the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.
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SB3.b. - Compare how structures and function vary between the six kingdoms (archaeobacteria, eubacteria, protists, fungi, plants, and animals).
 SB4. - Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.

SB4.d. - Assess and explain human activities that influence and modify the environment such as global warming, population growth, pesticide use, and water and power consumption.

GA.SBO. - Botany

SB01. - Students will use current plant phylogenetic principles and describe the structural changes used to delineate the plant divisions.
 SB01.c. - Use, compare, and contrast the methods and purposes of plant classification.

SB02. - Students will be able to identify and describe Georgia's major physiographic provinces and their natural plant communities.
 SB02.b. - Use taxonomic keys to identify local flora and recognize major representative groups of the southeast.
 SB03. - Students will explore the structures and processes necessary for the mutual survival of plants and animals.

SB03.a. - Describe and relate plant structures (organs, tissues, cells, organelles) to plant processes (photosynthesis, respiration, transport, growth, reproduction, dispersal).
 SB05. - Students will analyze the diversity of plant adaptations and responses to environmental extremes.

SB05.a. - Describe the diversity of plants and their adaptations in relation to differing ecosystems and changing environments, both long term (climate) and short term (seasonal and diurnal).
 SB05.e. - Explain the role of plant processes in the biosphere (i.e. energy and cycling of major nutrients (C, O, H, N, and P)).

GA.SEC. - Ecology

SECS. - Students will assess the impact of human activities on the natural world, and research how ecological theory can address current issues facing our society, locally and globally.
 SECS.a. - Describe the sources, environmental impacts, and mitigation measures for major primary and secondary pollutants.
 SECS.c. - Evaluate the causes and impacts on ecosystems of natural and anthropogenic climate change.

SCSh6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.
 SCSh6.d. - Participate in group discussions of scientific investigation and current scientific issues.
 SCSh7. - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that:
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 SCSh9.b.1. - Discuss messages and themes from books in all subject areas.
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 SCSh9.b.5. - Examine author's purpose in writing.
 SCSh9.b.6. - Recognize the features of disciplinary texts.

GA.SB. - Biology

SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.

SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.
 SB1.b. - Explain how enzymes function as catalysts.

SB1.c. - Identify the function of the four major macromolecules (i.e., carbohydrates, proteins, lipids, nucleic acids).
 SB1.d. - Explain the impact of water on life processes (i.e., osmosis, diffusion).

SB3. - Students will derive the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.
 SB3.a. - Explain the cycling of energy through the processes of photosynthesis and respiration.

SB3.b. - Compare how structures and function vary between the six kingdoms (archaeobacteria, eubacteria, protists, fungi, plants, and animals).
 SB4. - Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.

SB4.d. - Assess and explain human activities that influence and modify the environment such as global warming, population growth, pesticide use, and water and power consumption.

GA.SBO. - Botany

SB01. - Students will use current plant phylogenetic principles and describe the structural changes used to delineate the plant divisions.
 SB01.c. - Use, compare, and contrast the methods and purposes of plant classification.

SB02. - Students will be able to identify and describe Georgia's major physiographic provinces and their natural plant communities.
 SB02.b. - Use taxonomic keys to identify local flora and recognize major representative groups of the southeast.
 SB03. - Students will explore the structures and processes necessary for the mutual survival of plants and animals.

SB03.a. - Describe and relate plant structures (organs, tissues, cells, organelles) to plant processes (photosynthesis, respiration, transport, growth, reproduction, dispersal).
 SB05. - Students will analyze the diversity of plant adaptations and responses to environmental extremes.

SB05.a. - Describe the diversity of plants and their adaptations in relation to differing ecosystems and changing environments, both long term (climate) and short term (seasonal and diurnal).
 SB05.e. - Explain the role of plant processes in the biosphere (i.e. energy and cycling of major nutrients (C, O, H, N, and P)).

GA.SEC. - Ecology

SECS. - Students will assess the impact of human activities on the natural world, and research how ecological theory can address current issues facing our society, locally and globally.
 SECS.a. - Describe the sources, environmental impacts, and mitigation measures for major primary and secondary pollutants.
 SECS.c. - Evaluate the causes and impacts on ecosystems of natural and anthropogenic climate change.

<p>GA.SEV - Environmental Science</p> <p>SEV5 - Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.</p> <p>SEV5.e - Describe the effects and potential implications of pollution and resource depletion on the environment at the local and global levels (e.g. air and water pollution, solid waste disposal, depletion of the stratospheric ozone, global warming, and land uses).</p> <p>GA.SMI - Microbiology</p> <p>SMI1 - Students will analyze different types of microorganisms and their defining characteristics.</p> <p>SMI1.a - Distinguish between different kinds of microorganisms based on cellular structure, molecular biology and biochemical composition.</p> <p>SMI1.c - Compare relative sizes of microorganisms, different types of cell shapes, and various methods used to visualize microorganisms.</p> <p>SMI2 - Students will examine structural components of microbes and their functions.</p> <p>SMI2.a - Investigate structural properties of microbial membranes and functions associated with these membranes.</p> <p>SMI2.c - Examine intracellular organization in microbes and explain how these structures play roles in energy generation, transcription, translation, DNA replication and cellular locomotion.</p> <p>SMI3 - Students will examine different ways in which microbial cells generate energy for growth and reproduction.</p> <p>SMI3.a - Explain different types of energy generation used by microbes, including respiration, photosynthesis, and lithotrophy.</p> <p>SMI3.b - Describe how microorganisms differ with respect to their nutritional requirements for growth.</p> <p>SMI5 - Students will compare and contrast parameters affecting microbial growth, ways of controlling growth of microorganisms, and examine the effects that physicochemical factors can have on microbes.</p> <p>SMI5.b - Describe environmental factors that influence microbial growth and how these factors vary for different species.</p> <p>SMI5.e - Describe how exposure to certain chemicals or radiation increase rates of heritable mutations in microorganisms.</p> <p>SMI6 - Students will analyze the impact of microorganisms in the environment and the use of microbes in biotechnology, agriculture, and industry.</p> <p>SMI6.a - Explain the prevalence and diversity of microbes in various environments (e.g., hot springs, arctic ice, hypersaline environments, alkaline soils, acid mine drainage.)</p> <p>SMI6.b - Relate biotic and abiotic factors to the development of microbial populations and diversity.</p> <p>GA.SZ - Zoology</p> <p>SZ5 - Students will evaluate the relationships between humans and other animals.</p> <p>SZ5.a - Describe the effects of human activities such as habitat destruction, over hunting, introduced species, and pollution on animal biodiversity.</p> <p>GA.CC.19-10RST - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1 - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2 - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5 - 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>L9-10RST10 - 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>GA.CC.W9-10HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1 - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>GA.SEV - Environmental Science</p> <p>SEV5 - Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.</p> <p>SEV5.e - Describe the effects and potential implications of pollution and resource depletion on the environment at the local and global levels (e.g. air and water pollution, solid waste disposal, depletion of the stratospheric ozone, global warming, and land uses).</p> <p>GA.SMI1 - Microbiology</p> <p>SMI1 - Students will analyze different types of microorganisms and their defining characteristics.</p> <p>SMI1.a - Distinguish between different kinds of microorganisms based on cellular structure, molecular biology and biochemical composition.</p> <p>SMI1.c - Compare relative sizes of microorganisms, different types of cell shapes, and various methods used to visualize microorganisms.</p> <p>SMI2 - Students will examine structural components of microbes and their functions.</p> <p>SMI2.a - Investigate structural properties of microbial membranes and functions associated with these membranes.</p> <p>SMI2.c - Examine intracellular organization in microbes and explain how these structures play roles in energy generation, transcription, translation, DNA replication and cellular locomotion.</p> <p>SMI3 - Students will examine different ways in which microbial cells generate energy for growth and reproduction.</p> <p>SMI3.a - Explain different types of energy generation used by microbes, including respiration, photosynthesis, and lithotrophy.</p> <p>SMI3.b - Describe how microorganisms differ with respect to their nutritional requirements for growth.</p> <p>SMI5 - Students will compare and contrast parameters affecting microbial growth, ways of controlling growth of microorganisms, and examine the effects that physicochemical factors can have on microbes.</p> <p>SMI5.b - Describe environmental factors that influence microbial growth and how these factors vary for different species.</p> <p>SMI5.e - Describe how exposure to certain chemicals or radiation increase rates of heritable mutations in microorganisms.</p> <p>SMI6 - Students will analyze the impact of microorganisms in the environment and the use of microbes in biotechnology, agriculture, and industry.</p> <p>SMI6.a - Explain the prevalence and diversity of microbes in various environments (e.g., hot springs, arctic ice, hypersaline environments, alkaline soils, acid mine drainage.)</p> <p>SMI6.b - Relate biotic and abiotic factors to the development of microbial populations and diversity.</p> <p>GA.SZ - Zoology</p> <p>SZ5 - Students will evaluate the relationships between humans and other animals.</p> <p>SZ5.a - Describe the effects of human activities such as habitat destruction, over hunting, introduced species, and pollution on animal biodiversity.</p> <p>GA.CC.19-10RST - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1 - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2 - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5 - 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>L9-10RST10 - 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>GA.CC.W9-10HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1 - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>SEV5 - Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.</p> <p>SEV5.e - Describe the effects and potential implications of pollution and resource depletion on the environment at the local and global levels (e.g. air and water pollution, solid waste disposal, depletion of the stratospheric ozone, global warming, and land uses).</p> <p>GA.SMI1 - Microbiology</p> <p>SMI1 - Students will analyze different types of microorganisms and their defining characteristics.</p> <p>SMI1.a - Distinguish between different kinds of microorganisms based on cellular structure, molecular biology and biochemical composition.</p> <p>SMI1.c - Compare relative sizes of microorganisms, different types of cell shapes, and various methods used to visualize microorganisms.</p> <p>SMI2 - Students will examine structural components of microbes and their functions.</p> <p>SMI2.a - Investigate structural properties of microbial membranes and functions associated with these membranes.</p> <p>SMI2.c - Examine intracellular organization in microbes and explain how these structures play roles in energy generation, transcription, translation, DNA replication and cellular locomotion.</p> <p>SMI3 - Students will examine different ways in which microbial cells generate energy for growth and reproduction.</p> <p>SMI3.a - Explain different types of energy generation used by microbes, including respiration, photosynthesis, and lithotrophy.</p> <p>SMI3.b - Describe how microorganisms differ with respect to their nutritional requirements for growth.</p> <p>SMI5 - Students will compare and contrast parameters affecting microbial growth, ways of controlling growth of microorganisms, and examine the effects that physicochemical factors can have on microbes.</p> <p>SMI5.b - Describe environmental factors that influence microbial growth and how these factors vary for different species.</p> <p>SMI5.e - Describe how exposure to certain chemicals or radiation increase rates of heritable mutations in microorganisms.</p> <p>SMI6 - Students will analyze the impact of microorganisms in the environment and the use of microbes in biotechnology, agriculture, and industry.</p> <p>SMI6.a - Explain the prevalence and diversity of microbes in various environments (e.g., hot springs, arctic ice, hypersaline environments, alkaline soils, acid mine drainage.)</p> <p>SMI6.b - Relate biotic and abiotic factors to the development of microbial populations and diversity.</p> <p>GA.SZ - Zoology</p> <p>SZ5 - Students will evaluate the relationships between humans and other animals.</p> <p>SZ5.a - Describe the effects of human activities such as habitat destruction, over hunting, introduced species, and pollution on animal biodiversity.</p> <p>GA.CC.L11-12RST - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1 - 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>L11-12RST2 - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5 - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9 - 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>L11-12RST10 - 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>GA.CC.W11-12HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1 - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>GA.SMI - Microbiology</p> <p>SMI1 - Students will analyze different types of microorganisms and their defining characteristics.</p> <p>SMI1.a - Distinguish between different kinds of microorganisms based on cellular structure, molecular biology and biochemical composition.</p> <p>SMI1.c - Compare relative sizes of microorganisms, different types of cell shapes, and various methods used to visualize microorganisms.</p> <p>SMI2 - Students will examine structural components of microbes and their functions.</p> <p>SMI2.a - Investigate structural properties of microbial membranes and functions associated with these membranes.</p> <p>SMI2.c - Examine intracellular organization in microbes and explain how these structures play roles in energy generation, transcription, translation, DNA replication and cellular locomotion.</p> <p>SMI3 - Students will examine different ways in which microbial cells generate energy for growth and reproduction.</p> <p>SMI3.a - Explain different types of energy generation used by microbes, including respiration, photosynthesis, and lithotrophy.</p> <p>SMI3.b - Describe how microorganisms differ with respect to their nutritional requirements for growth.</p> <p>SMI5 - Students will compare and contrast parameters affecting microbial growth, ways of controlling growth of microorganisms, and examine the effects that physicochemical factors can have on microbes.</p> <p>SMI5.b - Describe environmental factors that influence microbial growth and how these factors vary for different species.</p> <p>SMI5.e - Describe how exposure to certain chemicals or radiation increase rates of heritable mutations in microorganisms.</p> <p>SMI6 - Students will analyze the impact of microorganisms in the environment and the use of microbes in biotechnology, agriculture, and industry.</p> <p>SMI6.a - Explain the prevalence and diversity of microbes in various environments (e.g., hot springs, arctic ice, hypersaline environments, alkaline soils, acid mine drainage.)</p> <p>SMI6.b - Relate biotic and abiotic factors to the development of microbial populations and diversity.</p> <p>GA.SZ - Zoology</p> <p>SZ5 - Students will evaluate the relationships between humans and other animals.</p> <p>SZ5.a - Describe the effects of human activities such as habitat destruction, over hunting, introduced species, and pollution on animal biodiversity.</p> <p>GA.CC.L11-12RST - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1 - 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>L11-12RST2 - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5 - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9 - 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>L11-12RST10 - 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>GA.CC.W11-12HST - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1 - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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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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>W9-10HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST3. - (See note; not applicable as a separate requirement)</p> <p>W9-10HST3.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>W9-10HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>W11-12HST1.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>W11-12HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3. - (See note; not applicable as a separate requirement)</p> <p>W11-12HST3.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>W11-12HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3. - (See note; not applicable as a separate requirement)</p> <p>W11-12HST3.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>W11-12HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
Synaptic Transmission - GA	<p>GA.SCSH. - Characteristics of Science</p> <p>SCSH.3. - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH.3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH.3.c. - Collect, organize and record appropriate data.</p> <p>SCSH.3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSH.3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH.6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH.6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH.6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH.6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH.7. - The Nature of Science: Students analyze how scientific knowledge is developed. Students recognize that:</p> <p>SCSH.7.d. - Hypotheses often cause scientists to develop new experiments that produce additional data.</p> <p>SCSH.9. - The Nature of Science: Students will enhance reading in all curriculum areas by:</p> <p>SCSH.9.a. - Reading in all curriculum areas</p> <p>SCSH.9.a.1. - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.</p> <p>SCSH.9.a.2. - Read both informational and fictional texts in a variety of genres and modes of discourse.</p> <p>SCSH.9.a.3. - Read technical texts related to various subject areas.</p> <p>SCSH.9.b. - Discussing books</p> <p>SCSH.9.b.1. - Discuss messages and themes from books in all subject areas.</p> <p>SCSH.9.b.2. - Respond to a variety of texts in multiple modes of discourse.</p> <p>SCSH.9.b.3. - Relate messages and themes from one subject area to messages and themes in another area.</p> <p>SCSH.9.b.5. - Examine author's purpose in writing.</p> <p>SCSH.9.b.6. - Recognize the features of disciplinary texts.</p> <p>SCSH.9.d. - Establishing context Explore life experiences related to subject area content.</p> <p>SCSH.9.d.1. - Discuss in both writing and speaking how certain words are subject area related.</p> <p>SCSH.9.d.2. - Determine strategies for finding content and contextual meaning for unknown words.</p> <p>GA.SB. - Biology</p> <p>SB1. - Students will analyze the nature of the relationships between structures and functions in living cells.</p> <p>SB1.a. - Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.</p>	<p>GA.SCSH. - Characteristics of Science</p> <p>SCSH.3. - Habits of Mind: Students will identify and investigate problems scientifically.</p> <p>SCSH.3.a. - Suggest reasonable hypotheses for identified problems.</p> <p>SCSH.3.c. - Collect, organize and record appropriate data.</p> <p>SCSH.3.e. - Develop reasonable conclusions based on data collected.</p> <p>SCSH.3.f. - Evaluate whether conclusions are reasonable by reviewing the process and checking against other available information.</p> <p>SCSH.6. - Habits of Mind: Students will communicate scientific investigations and information clearly.</p> <p>SCSH.6.a. - Write clear, coherent laboratory reports related to scientific investigations.</p> <p>SCSH.6.c. - Use data as evidence to support scientific arguments and claims in written or oral presentations.</p> <p>SCSH.6.d. - Participate in group discussions of scientific investigation and current scientific issues.</p> <p>SCSH.7. - The Nature of Science: Students analyze how scientific knowledge is developed. 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trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5. - 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>L9-10RST10. - 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>GA.CC.W9-10HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1. - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST3. - (See note; not applicable as a separate requirement)</p>	<p>SB1.b. - Explain how enzymes function as catalysts.</p> <p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.b. - Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>GA.CC.19-10RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L9-10RST1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>L9-10RST2. - Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p>L9-10RST5. - 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>L9-10RST10. - 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>GA.CC.W9-10HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W9-10HST1. - Write arguments focused on discipline-specific content.</p> <p>W9-10HST1.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>W9-10HST1.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>W9-10HST1.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>W9-10HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W9-10HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST2.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>W9-10HST3. - (See note; not applicable as a separate requirement)</p>	<p>GA.SAP. - Human Anatomy and Physiology</p> <p>SAP1. - Students will analyze anatomical structures in relationship to their physiological functions.</p> <p>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.b. - Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>GA.CC.11-12RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1. - 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>L11-12RST2. - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5. - 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>L11-12RST10. - 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>GA.CC.W11-12HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1. - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3.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>SAP1.a. - Apply correct terminology when explaining the orientation of body parts and regions.</p> <p>SAP1.c. - Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.</p> <p>SAP1.e. - Describe how structure and function are related in terms of cell and tissue types.</p> <p>SAP3. - Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.</p> <p>SAP3.a. - Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.</p> <p>SAP3.b. - Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.</p> <p>SAP3.c. - Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.</p> <p>GA.CC.11-12RST. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>L11-12RST1. - 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>L11-12RST2. - Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>L11-12RST5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>L11-12RST9. - 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>L11-12RST10. - 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>GA.CC.W11-12HST. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>W11-12HST1. - Write arguments focused on discipline-specific content.</p> <p>W11-12HST1.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>W11-12HST1.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>W11-12HST1.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>W11-12HST1.e. - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>W11-12HST2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST2.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>W11-12HST3. - (See note; not applicable as a separate requirement)</p> <p>W11-12HST3.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>W9-10HST3.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>W9-10HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>W9-10HST3.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>W9-10HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>W11-12HST3. - (See note; not applicable as a separate requirement)</p> <p>W11-12HST3.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>W11-12HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>W11-12HST4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
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