

Main Criteria: Cogent Education's Interactive Cases

Secondary Criteria: Alaska Content Standards

Subject: Science

Grades: 9, 10, 11, 12



Title	Common Among States	Alaska Content Standards	Alaska Content Standards	Alaska Content Standards	Alaska Content Standards
Action Potential -	AK	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[9] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <p>[9] SA1.2. - The student develops an understanding of the processes of science by hypothesizing, designing a controlled experiment, making qualitative and quantitative observations, interpreting data, and using this information to communicate conclusions.</p> <p>[9] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by formulating conclusions that are logical and supported by evidence.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[9] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by stating the function of major physiological systems (i.e., circulatory, excretory, digestive, respiratory, reproductive, nervous, immune, endocrine, musculoskeletal, and integumentary).</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[10] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>[10] SA1.2. - The student develops an understanding of the processes of science by reviewing pertinent literature, hypothesizing, making qualitative and quantitative observations, controlling experimental variables, analyzing data statistically (i.e., mean, median, mode), and using this information to draw conclusions, compare results to others, suggest further experimentation, and apply their conclusions to other problems. (L)</p> <p>[10] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by examining methodology and conclusions to identify bias and determining if evidence logically supports the conclusions.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[10] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by explaining the functions of organs of major systems (i.e., respiratory, digestive, circulatory, reproductive, nervous, musculoskeletal, and excretory).</p> <p>AK.G1. - History and Nature of Science (SG1, SG2, SG3, SG4)</p> <p>[10] SG3.1. - The student demonstrates an understanding that scientific knowledge is ongoing and subject to change by using experimental or observational data to evaluate a hypothesis.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible.</p> <p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p> <p>AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1.a. - Introduce precise claim(s), knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. 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organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1.a. - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1.b. - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1.c. - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.9-10.2.a. - Introduce a topic clearly, previewing what is to follow; 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organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2.d. - Use precise language and domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; 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[10] SC2.4. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by tracing the pathways of the digestive, circulatory, and excretory systems. AK.G1. - History and Nature of Science (SG1, SG2, SG3, SG4)</p> <p>[10] SG3.1. - The student demonstrates an understanding that scientific knowledge is ongoing and subject to change by using experimental or observational data to evaluate a hypothesis.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should: SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments. 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WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>
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		<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.9-10.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.1.b. - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1.c. - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.9-10.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2.d. - Use precise language and domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2.d. - Use precise language and domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
Diffusion -	AK	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[9] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <p>[9] SA1.2. - The student develops an understanding of the processes of science by hypothesizing, designing a controlled experiment, making qualitative and quantitative observations, interpreting data, and using this information to communicate conclusions.</p> <p>[9] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by formulating conclusions that are logical and supported by evidence.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[9] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by stating the function of major physiological systems (i.e., circulatory, excretory, digestive, respiratory, reproductive, nervous, immune, endocrine, musculoskeletal, and integumentary).</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[10] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>[10] SA1.2. - The student develops an understanding of the processes of science by reviewing pertinent literature, hypothesizing, making qualitative and quantitative observations, controlling experimental variables, analyzing data statistically (i.e., mean, median, mode), and using this information to draw conclusions, compare results to others, suggest further experimentation, and apply their conclusions to other problems. (L)</p> <p>[10] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by examining methodology and conclusions to identify bias and determining if evidence logically supports the conclusions.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[10] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by explaining the functions of organs of major systems (i.e., respiratory, digestive, circulatory, reproductive, nervous, musculoskeletal, and excretory).</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>

<p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should: SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p>	<p>[10] SC2.4. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by tracing the pathways of the digestive, circulatory, and excretory systems. AK.G1. - History and Nature of Science (SG1, SG2, SG3, SG4)</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account. RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible. AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account. RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible. AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p>
<p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>	<p>[10] SG3.1. - The student demonstrates an understanding that scientific knowledge is ongoing and subject to change by using experimental or observational data to evaluate a hypothesis.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should: SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>
<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p>	<p>WHST.11-12.1.a. - Introduce precise claim(s), knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.1.a. - Introduce precise claim(s), 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>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p>	<p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>- Key Ideas and Details</p>	<p>WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p>
<p>WHST.9-10.1.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>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>
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<p>WHST.9-10.1.c. - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p>	<p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p>
<p>WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>WHST.9-10.1.a. - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>
<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p>	<p>WHST.9-10.1.b. - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>	<p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>	<p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>
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<p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>

		<p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.9-10.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
Filtration -	AK	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[9] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <p>[9] SA1.2. - The student develops an understanding of the processes of science by hypothesizing, designing a controlled experiment, making qualitative and quantitative observations, interpreting data, and using this information to communicate conclusions.</p> <p>[9] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by formulating conclusions that are logical and supported by evidence.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[9] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by stating the function of major physiological systems (i.e., circulatory, excretory, digestive, respiratory, reproductive, nervous, immune, endocrine, musculoskeletal, and integumentary).</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[10] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>[10] SA1.2. - The student develops an understanding of the processes of science by reviewing pertinent literature, hypothesizing, making qualitative and quantitative observations, controlling experimental variables, analyzing data statistically (i.e., mean, median, mode), and using this information to draw conclusions, compare results to others, suggest further experimentation, and apply their conclusions to other problems. (L)</p> <p>[10] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by examining methodology and conclusions to identify bias and determining if evidence logically supports the conclusions.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[10] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by explaining the functions of organs of major systems (i.e., respiratory, digestive, circulatory, reproductive, nervous, musculoskeletal, and excretory).</p> <p>[10] SC2.4. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by tracing the pathways of the digestive, circulatory, and excretory systems.</p> <p>AK.G1. - History and Nature of Science (SG1, SG2, SG3, SG4)</p> <p>[10] SG3.1. - The student demonstrates an understanding that scientific knowledge is ongoing and subject to change by using experimental or observational data to evaluate a hypothesis.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible.</p> <p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p> <p>AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible.</p> <p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p> <p>AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p>

<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>
<p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p>	<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>WHST.11-12.1.a. - Introduce precise claim(s), knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>WHST.11-12.1.a. - Introduce precise claim(s), knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>	<p>WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>
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<p>WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1.a. - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>
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<p>WHST.9-10.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p>	<p>WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
<p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p>	<p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.11-12.2.e. - 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>
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			<p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>		
Membrane Potential -	AK	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[9] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <p>[9] SA1.2. - The student develops an understanding of the processes of science by hypothesizing, designing a controlled experiment, making qualitative and quantitative observations, interpreting data, and using this information to communicate conclusions.</p> <p>[9] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by formulating conclusions that are logical and supported by evidence.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[9] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by stating the function of major physiological systems (i.e., circulatory, excretory, digestive, respiratory, reproductive, nervous, immune, endocrine, musculoskeletal, and integumentary).</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[10] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>[10] SA1.2. - The student develops an understanding of the processes of science by reviewing pertinent literature, hypothesizing, making qualitative and quantitative observations, controlling experimental variables, analyzing data statistically (i.e., mean, median, mode), and using this information to draw conclusions, compare results to others, suggest further experimentation, and apply their conclusions to other problems. (L)</p> <p>[10] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by examining methodology and conclusions to identify bias and determining if evidence logically supports the conclusions.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[10] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by explaining the functions of organs of major systems (i.e., respiratory, digestive, circulatory, reproductive, nervous, musculoskeletal, and excretory).</p> <p>AK.G1. - History and Nature of Science (SG1, SG2, SG3, SG4)</p> <p>[10] SG3.1. - The student demonstrates an understanding that scientific knowledge is ongoing and subject to change by using experimental or observational data to evaluate a hypothesis.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible.</p> <p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p> <p>AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1.a. - Introduce precise claim(s), knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. 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organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1.a. - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1.b. - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1.c. - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.9-10.2.a. - Introduce a topic clearly, previewing what is to follow; 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Membrane Transport	AK	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[9] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[10] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p>

<p>[9] SA1.2. - The student develops an understanding of the processes of science by hypothesizing, designing a controlled experiment, making qualitative and quantitative observations, interpreting data, and using this information to communicate conclusions.</p> <p>[9] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by formulating conclusions that are logical and supported by evidence. AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[9] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by stating the function of major physiological systems (i.e., circulatory, excretory, digestive, respiratory, reproductive, nervous, immune, endocrine, musculoskeletal, and integumentary). AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should: SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions. RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy). RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1.a. - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence. WHST.9-10.1.b. - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>	<p>[10] SA1.2. - The student develops an understanding of the processes of science by reviewing pertinent literature, hypothesizing, making qualitative and quantitative observations, controlling experimental variables, analyzing data statistically (i.e., mean, median, mode), and using this information to draw conclusions, compare results to others, suggest further experimentation, and apply their conclusions to other problems. (L)</p> <p>[10] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by examining methodology and conclusions to identify bias and determining if evidence logically supports the conclusions. AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[10] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by explaining the functions of organs of major systems (i.e., respiratory, digestive, circulatory, reproductive, nervous, musculoskeletal, and excretory). AK.G1. - History and Nature of Science (SG1, SG2,SG3, SG4)</p> <p>[10] SG3.1. - The student demonstrates an understanding that scientific knowledge is ongoing and subject to change by using experimental or observational data to evaluate a hypothesis.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should: SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments. AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects - Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account. RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible. RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently. AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1.a. - Introduce precise claim(s), 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. WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims. WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p>	<p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects - Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account. RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible. RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently. AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1.a. - Introduce precise claim(s), 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. WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims. WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p>
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organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2.d. - Use precise language and domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2.d. - Use precise language and domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
Nitrogen Cycle -	AK	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[9] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <p>[9] SA1.2. - The student develops an understanding of the processes of science by hypothesizing, designing a controlled experiment, making qualitative and quantitative observations, interpreting data, and using this information to communicate conclusions.</p> <p>[9] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by formulating conclusions that are logical and supported by evidence.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[10] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>[10] SA1.2. - The student develops an understanding of the processes of science by reviewing pertinent literature, hypothesizing, making qualitative and quantitative observations, controlling experimental variables, analyzing data statistically (i.e., mean, median, mode), and using this information to draw conclusions, compare results to others, suggest further experimentation, and apply their conclusions to other problems. (L)</p> <p>[10] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by examining methodology and conclusions to identify bias and determining if evidence logically supports the conclusions.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[11] SC3.2. - The student demonstrates an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy by analyzing the potential impacts of changes (e.g., climate change, habitat loss/gain, cataclysms, human activities) within an ecosystem.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[11] SC3.2. - The student demonstrates an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy by analyzing the potential impacts of changes (e.g., climate change, habitat loss/gain, cataclysms, human activities) within an ecosystem.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p>

<p>[9] SC3.1. - The student demonstrates an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy by describing the carbon and nitrogen cycle within an ecosystem and how the continual input of energy from sunlight keeps the process going. (L) AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should: SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.SC. - Concepts of Life Science: A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science. A student who meets the content standard should: SC3. - Develop an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy. AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy). RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently. AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1.a. - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1.b. - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns. WHST.9-10.1.c. - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims. WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>[10] SC3.2. - The student demonstrates an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy by exploring ecological relationships (e.g., competition, niche, feeding relationships, symbiosis). (L) AK.G1. - History and Nature of Science (SG1, SG2, SG3, SG4)</p> <p>[10] SG3.1. - The student demonstrates an understanding that scientific knowledge is ongoing and subject to change by using experimental or observational data to evaluate a hypothesis.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should: SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments. AK.SC. - Concepts of Life Science: A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science. A student who meets the content standard should: SC3. - Develop an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy. AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy). RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1.a. - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence. WHST.9-10.1.b. - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>	<p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.SC. - Concepts of Life Science: A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science. A student who meets the content standard should: SC3. - Develop an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account. RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas. RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible. RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently. AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1.a. - Introduce precise claim(s), 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. WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims. WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p>	<p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.SC. - Concepts of Life Science: A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science. A student who meets the content standard should: SC3. - Develop an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account. RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas. RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible. RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently. AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1.a. - Introduce precise claim(s), 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. WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims. WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p>
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		<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.9-10.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.1.c. - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.9-10.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2.d. - Use precise language and domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2.d. - Use precise language and domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
Osmosis -	AK	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3) [9] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <p>[9] SA1.2. - The student develops an understanding of the processes of science by hypothesizing, designing a controlled experiment, making qualitative and quantitative observations, interpreting data, and using this information to communicate conclusions.</p> <p>[9] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by formulating conclusions that are logical and supported by evidence.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should: SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3) [10] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>[10] SA1.2. - The student develops an understanding of the processes of science by reviewing pertinent literature, hypothesizing, making qualitative and quantitative observations, controlling experimental variables, analyzing data statistically (i.e., mean, median, mode), and using this information to draw conclusions, compare results to others, suggest further experimentation, and apply their conclusions to other problems. (L)</p> <p>[10] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by examining methodology and conclusions to identify bias and determining if evidence logically supports the conclusions.</p> <p>AK.G1. - History and Nature of Science (SG1, SG2, SG3, SG4)</p> <p>[10] SG3.1. - The student demonstrates an understanding that scientific knowledge is ongoing and subject to change by using experimental or observational data to evaluate a hypothesis.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should: SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3) [11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3) [11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p>

<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible.</p>	<p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible.</p>
<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>	<p>- Key Ideas and Details</p>	<p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p>	<p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p>
<p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>	<p>AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p>	<p>AK.WHST.11-12. - Writing Standards for Literacy in Science, and Technical Subjects</p>
<p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p>	<p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>
<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p>	<p>WHST.11-12.1.a. - Introduce precise claim(s), knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.1.a. - Introduce precise claim(s), knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>
<p>WHST.9-10.1.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>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p>	<p>WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>WHST.11-12.1.b. - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
<p>WHST.9-10.1.b. - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>	<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.11-12.1.c. - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p>
<p>WHST.9-10.1.c. - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.9-10.1.a. - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>WHST.11-12.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>
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<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p>	<p>WHST.9-10.1.c. - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p>	<p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p>	<p>WHST.11-12.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p>
<p>WHST.9-10.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p>	<p>WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>WHST.11-12.2.b. - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>
<p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p>	<p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>	<p>WHST.11-12.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>
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<p>WHST.9-10.2.f. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.9-10.2.b. - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.11-12.2.e. - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>
<p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.9-10.2.c. - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p>	<p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>

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Photosynthesis -	AK	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[9] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <p>[9] SA1.2. - The student develops an understanding of the processes of science by hypothesizing, designing a controlled experiment, making qualitative and quantitative observations, interpreting data, and using this information to communicate conclusions.</p> <p>[9] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by formulating conclusions that are logical and supported by evidence.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1.a. - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[10] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>[10] SA1.2. - The student develops an understanding of the processes of science by reviewing pertinent literature, hypothesizing, making qualitative and quantitative observations, controlling experimental variables, analyzing data statistically (i.e., mean, median, mode), and using this information to draw conclusions, compare results to others, suggest further experimentation, and apply their conclusions to other problems. (L)</p> <p>[10] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by examining methodology and conclusions to identify bias and determining if evidence logically supports the conclusions.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[10] SC3.1. - The student demonstrates an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy by relating the carbon cycle to global climate change.</p> <p>AK.D1. - Concepts of Earth Science (SD1, SD2, SD3, SD4)</p> <p>[10] SD3.1. - The student demonstrates an understanding of cycles influenced by energy from the sun and by Earth's position and motion in our solar system by describing causes, effects, preventions, and mitigations of human impact on climate.</p> <p>AK.G1. - History and Nature of Science (SG1, SG2, SG3, SG4)</p> <p>[10] SG3.1. - The student demonstrates an understanding that scientific knowledge is ongoing and subject to change by using experimental or observational data to evaluate a hypothesis.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[11] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[11] SC3.1. - The student demonstrates an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy by relating the carbon cycle to global climate change.</p> <p>[11] SC3.2. - The student demonstrates an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy by analyzing the potential impacts of changes (e.g., climate change, habitat loss/gain, cataclysms, human activities) within an ecosystem.</p> <p>AK.D1. - Concepts of Earth Science (SD1, SD2, SD3, SD4)</p> <p>[11] SD3.1. - The student demonstrates an understanding of cycles influenced by energy from the sun and by Earth's position and motion in our solar system by describing causes, effects, preventions, and mitigations of human impact on climate.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. 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A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11-12.9. - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon or concept, resolving conflicting information when possible.</p>

<p>WHST.9-10.1.b. - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1.c. - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1.e. - Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <p>WHST.9-10.2.a. - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; 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Synaptic Transmission - AK	AK	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[9] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <p>[9] SA1.2. - The student develops an understanding of the processes of science by hypothesizing, designing a controlled experiment, making qualitative and quantitative observations, interpreting data, and using this information to communicate conclusions.</p> <p>[9] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by formulating conclusions that are logical and supported by evidence.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[9] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by stating the function of major physiological systems (i.e., circulatory, excretory, digestive, respiratory, reproductive, nervous, immune, endocrine, musculoskeletal, and integumentary).</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p> <p>SA1. - Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <p>AK.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p> <p>RST.9-10.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST.9-10.5. - Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p> <p>RST.9-10.10. - By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.</p> <p>AK.WHST.9-10. - Writing Standards for Literacy in Science, and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>AK.A1. - Science as Inquiry and Process (SA1, SA2, SA3)</p> <p>[10] SA1.1. - The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring and communicating.</p> <p>[10] SA1.2. - The student develops an understanding of the processes of science by reviewing pertinent literature, hypothesizing, making qualitative and quantitative observations, controlling experimental variables, analyzing data statistically (i.e., mean, median, mode), and using this information to draw conclusions, compare results to others, suggest further experimentation, and apply their conclusions to other problems. (L)</p> <p>[10] SA2.1. - The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by examining methodology and conclusions to identify bias and determining if evidence logically supports the conclusions.</p> <p>AK.C1. - Concepts of Life Science (SC1, SC2, SC3)</p> <p>[10] SC2.3. - The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by explaining the functions of organs of major systems (i.e., respiratory, digestive, circulatory, reproductive, nervous, musculoskeletal, and excretory).</p> <p>AK.G1. - History and Nature of Science (SG1, SG2, SG3, SG4)</p> <p>[10] SG3.1. - The student demonstrates an understanding that scientific knowledge is ongoing and subject to change by using experimental or observational data to evaluate a hypothesis.</p> <p>AK.SA. - Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. 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