

Main Criteria: Cogent Education's Interactive Cases
 Secondary Criteria: West Virginia Content Standards and Objectives
 Subject: Science
 Grades: 9, 10, 11, 12



Title	Common Among States	West Virginia Content Standards and Objectives	West Virginia Content Standards and Objectives	West Virginia Content Standards and Objectives	West Virginia Content Standards and Objectives
Action Potential -	WV	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</p> <p>SC.O.HAP.2.1.a. - Proximal</p> <p>SC.O.HAP.2.1.b. - Dorsal</p>	<p>WV.SC.S.B. - Biology</p> <p>SC.S.B.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.2.1. - Investigate and correlate the properties of chemical and biological molecules to their function in biochemical pathways</p> <p>SC.O.B.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.B.2.3. - Compare and contrast cell types:</p> <p>SC.O.B.2.3.b. - Plant/animal</p>	<p>WV.SC.S.B.II. - Biology II</p> <p>SC.S.B.II.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.II.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.II.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.II.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.II.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.II.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.II.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.II.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p>	<p>WV.SC.S.B.II. - Biology II</p> <p>SC.S.B.II.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.II.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.II.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.II.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.II.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.II.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.II.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.II.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p>

SC.O.HAP.2.1.c. - Medial	SC.O.B.2.3.d. - Various body cells	SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)
SC.O.HAP.2.1.d. - Visceral	SC.O.B.2.4. - Relate the structure and function of individual body systems to the overall functioning of the organism	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)
SC.O.HAP.2.1.e. - Superficial	SC.O.B.2.5. - Predict and assess responses of organisms to internal and environmental stimuli	SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)
SC.O.HAP.2.1.f. - Deep	SC.O.B.2.6. - Analyze the chemistry and fluid mosaic model of the cell membrane as they relate to import and export of molecules necessary for life including: SC.O.B.2.6.e. - Dialysis	SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions	SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions
SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:		SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)	SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)
SC.O.HAP.2.2.d. - Organ systems	SC.O.B.2.8. - Differentiate mechanisms of homeostasis in living systems (negative and positive feedback)	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences
SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue: SC.O.HAP.2.3.d. - Nervous	WV.SC.S.CB. - Conceptual Biology SC.S.CB.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	SC.O.HAP.2.1. - Apply directional terminology to locate human body structures: SC.O.HAP.2.1.a. - Proximal	SC.O.HAP.2.1. - Apply directional terminology to locate human body structures: SC.O.HAP.2.1.a. - Proximal
SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function	SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results	SC.O.HAP.2.1.b. - Dorsal	SC.O.HAP.2.1.b. - Dorsal
SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels	SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	SC.O.HAP.2.1.c. - Medial	SC.O.HAP.2.1.c. - Medial
SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions	SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.O.HAP.2.1.d. - Visceral	SC.O.HAP.2.1.d. - Visceral
WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects	SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	SC.O.HAP.2.1.e. - Superficial	SC.O.HAP.2.1.e. - Superficial
- Key Ideas and Details	SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions	SC.O.HAP.2.1.f. - Deep	SC.O.HAP.2.1.f. - Deep

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.	SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:	SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:
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).	SC.O.CB.2.1. - Relate molecules to their functions in biochemical pathways	SC.O.HAP.2.2.d. - Organ systems	SC.O.HAP.2.2.d. - Organ systems
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.	SC.O.CB.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells	SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:	SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:
WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects	SC.O.CB.2.3. - Compare and contrast cell types:	SC.O.HAP.2.3.d. - Nervous	SC.O.HAP.2.3.d. - Nervous
WHST.9-10.1. - Write arguments focused on discipline-specific content.	SC.O.CB.2.3.b. - Plant/animal	SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function	SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function
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.	SC.O.CB.2.3.c. - Various body cells	SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels	SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels
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.	SC.O.CB.2.4. - Incorporate the structure and function of individual body systems to the overall functioning of the organism	SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions	SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions
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.	WV.SC.S.HAP. - Human Anatomy and Physiology	WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects	WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects
WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.	SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	- Key Ideas and Details	- Key Ideas and Details
WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results	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.11-12.1. - 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.
WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.	RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
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.	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	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.11-12.9. - 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.
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.	SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	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.	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.
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).	SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions	WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects	WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects
WHST.9-10.3. - (See note; not applicable as a separate requirement)	SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)	WHST.11-12.1. - Write arguments focused on discipline-specific content.	WHST.11-12.1. - Write arguments focused on discipline-specific content.

<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>
<p>SC.O.HAP.2.1.a. - Proximal</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>SC.O.HAP.2.1.b. - Dorsal</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>SC.O.HAP.2.1.c. - Medial</p>		<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>
<p>SC.O.HAP.2.1.d. - Visceral</p>		<p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	<p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>
<p>SC.O.HAP.2.1.e. - Superficial</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>SC.O.HAP.2.1.f. - Deep</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>
<p>SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:</p>		<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>
<p>SC.O.HAP.2.2.d. - Organ systems</p>		<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>
<p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:</p>		<p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>	<p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
<p>SC.O.HAP.2.3.d. - Nervous</p>		<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>	<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>
<p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</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>
<p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p>			
<p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p>			
<p>WV.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>WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>		
Cellular Respiration -	WV	WV.SC.S.HAP. - Human Anatomy and Physiology SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	WV.SC.S.B. - Biology SC.S.B.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	WV.SC.S.B.II. - Biology II SC.S.B.II.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	WV.SC.S.B.II. - Biology II SC.S.B.II.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions

<p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p>	<p>SC.O.B.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.2.1. - Investigate and correlate the properties of chemical and biological molecules to their function in biochemical pathways</p>	<p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p>	<p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p>
<p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</p> <p>SC.O.HAP.2.1.a. - Proximal</p> <p>SC.O.HAP.2.1.b. - Dorsal</p> <p>SC.O.HAP.2.1.c. - Medial</p> <p>SC.O.HAP.2.1.d. - Visceral</p> <p>SC.O.HAP.2.1.e. - Superficial</p> <p>SC.O.HAP.2.1.f. - Deep</p>	<p>SC.O.B.2.3. - Compare and contrast cell types:</p> <p>SC.O.B.2.3.b. - Plant/animal</p> <p>SC.O.B.2.4. - Relate the structure and function of individual body systems to the overall functioning of the organism</p> <p>SC.O.B.2.5. - Predict and assess responses of organisms to internal and environmental stimuli</p> <p>SC.O.B.2.6. - Analyze the chemistry and fluid mosaic model of the cell membrane as they relate to import and export of molecules necessary for life including:</p> <p>SC.O.B.2.6.d. - Passive transport</p> <p>SC.O.B.2.7. - Quantitatively analyze the flow of energy through cellular processes:</p>	<p>SC.O.BII.2.3. - Summarize the electrochemical gradients in various cells and their corresponding environments</p> <p>SC.O.BII.2.5. - Examine the flow of energy through specific molecules in:</p> <p>SC.O.BII.2.5.c. - Krebs' cycle</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>SC.O.BII.2.3. - Summarize the electrochemical gradients in various cells and their corresponding environments</p> <p>SC.O.BII.2.5. - Examine the flow of energy through specific molecules in:</p> <p>SC.O.BII.2.5.c. - Krebs' cycle</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>

SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:	SC.O.B.2.7.b. - Cellular respiration	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)
SC.O.HAP.2.2.d. - Organ systems	SC.O.B.2.8. - Differentiate mechanisms of homeostasis in living systems (negative and positive feedback)	SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)
SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue: SC.O.HAP.2.3.d. - Nervous	WV.SC.S.CB. - Conceptual Biology SC.S.CB.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)	SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)
SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions	SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences
WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects	SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:	SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:
- Key Ideas and Details	SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.O.HAP.2.1.a. - Proximal	SC.O.HAP.2.1.a. - Proximal
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.	SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	SC.O.HAP.2.1.b. - Dorsal	SC.O.HAP.2.1.b. - Dorsal
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.	SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.O.HAP.2.1.c. - Medial	SC.O.HAP.2.1.c. - Medial
WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects WHST.9-10.1. - Write arguments focused on discipline-specific content.	SC.O.CB.2.1. - Relate molecules to their functions in biochemical pathways SC.O.CB.2.3. - Compare and contrast cell types:	SC.O.HAP.2.1.d. - Visceral	SC.O.HAP.2.1.d. - Visceral
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.	SC.O.CB.2.3.b. - Plant/animal	SC.O.HAP.2.1.e. - Superficial SC.O.HAP.2.1.f. - Deep	SC.O.HAP.2.1.e. - Superficial SC.O.HAP.2.1.f. - Deep
		SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:	SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:

<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SC.O.CB.2.4 - Incorporate the structure and function of individual body systems to the overall functioning of the organism</p> <p>SC.O.CB.2.7 - Analyze the flow of energy through cellular processes:</p> <p>SC.O.CB.2.7.b - Cellular respiration</p> <p>WV.SC.S.HAP - Human Anatomy and Physiology</p> <p>SC.S.HAP.1 - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2 - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3 - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4 - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5 - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7 - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9 - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>SC.S.HAP.2 - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.1 - Apply directional terminology to locate human body structures:</p>	<p>SC.O.HAP.2.2.d - Organ systems</p> <p>SC.O.HAP.2.3 - Categorize, by structure and function, the various types of human tissue:</p> <p>SC.O.HAP.2.3.d - Nervous</p> <p>SC.O.HAP.2.14 - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.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>WV.WHST.11-12 - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1 - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>	<p>SC.O.HAP.2.2.d - Organ systems</p> <p>SC.O.HAP.2.3 - Categorize, by structure and function, the various types of human tissue:</p> <p>SC.O.HAP.2.3.d - Nervous</p> <p>SC.O.HAP.2.14 - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.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>WV.WHST.11-12 - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1 - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>
---	--	---	---

SC.O.HAP.2.1.a. - Proximal	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(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.
SC.O.HAP.2.1.b. - Dorsal	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(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.
SC.O.HAP.2.1.c. - Medial	WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.	WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.
SC.O.HAP.2.1.d. - Visceral	WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
SC.O.HAP.2.1.e. - Superficial	WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
SC.O.HAP.2.1.f. - Deep	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.	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.
SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:	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.	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.
SC.O.HAP.2.2.d. - Organ systems	WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.	WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.
SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:	WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).	WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).
SC.O.HAP.2.3.d. - Nervous	WHST.11-12.3. - (See note; not applicable as a separate requirement)	WHST.11-12.3. - (See note; not applicable as a separate requirement)
SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions	WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.	WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.
WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects	WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- Key Ideas and Details		
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.		
WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects		
WHST.9-10.1. - Write arguments focused on discipline-specific content.		

			<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>		
Diffusion -	WV	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>WV.SC.S.B. - Biology</p> <p>SC.S.B.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>

<p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p>	<p>SC.O.B.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.2.1. - Investigate and correlate the properties of chemical and biological molecules to their function in biochemical pathways</p>	<p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p>	<p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p>
<p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</p> <p>SC.O.HAP.2.1.a. - Proximal</p>	<p>SC.O.B.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.B.2.3. - Compare and contrast cell types:</p>	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p>	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p>
<p>SC.O.HAP.2.1.b. - Dorsal</p>	<p>SC.O.B.2.3.b. - Plant/animal</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>
<p>SC.O.HAP.2.1.c. - Medial</p>	<p>SC.O.B.2.5. - Predict and assess responses of organisms to internal and environmental stimuli</p>	<p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p>	<p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p>
<p>SC.O.HAP.2.1.d. - Visceral</p>	<p>SC.O.B.2.6. - Analyze the chemistry and fluid mosaic model of the cell membrane as they relate to import and export of molecules necessary for life including:</p>	<p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p>	<p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p>
<p>SC.O.HAP.2.1.e. - Superficial</p>	<p>SC.O.B.2.6.b. - Diffusion</p>		
<p>SC.O.HAP.2.1.f. - Deep</p>	<p>SC.O.B.2.8. - Differentiate mechanisms of homeostasis in living systems (negative and positive feedback)</p> <p>WV.SC.S.CB. - Conceptual Biology</p>		
<p>SC.O.HAP.2.16. - Analyze the role of components and processes of the digestive system in supplying essential nutrients</p>			

WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects	SC.S.CB.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences
- Key Ideas and Details	SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results	SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:	SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:
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.	SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	SC.O.HAP.2.1.a. - Proximal	SC.O.HAP.2.1.a. - Proximal
WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects	SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.O.HAP.2.1.b. - Dorsal	SC.O.HAP.2.1.b. - Dorsal
WHST.9-10.1. - Write arguments focused on discipline-specific content.	SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	SC.O.HAP.2.1.c. - Medial	SC.O.HAP.2.1.c. - Medial
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.	SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions	SC.O.HAP.2.1.d. - Visceral	SC.O.HAP.2.1.d. - Visceral
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.	SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.O.HAP.2.1.e. - Superficial	SC.O.HAP.2.1.e. - Superficial
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.	SC.O.CB.2.1. - Relate molecules to their functions in biochemical pathways	SC.O.HAP.2.1.f. - Deep	SC.O.HAP.2.1.f. - Deep
WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.	SC.O.CB.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells	SC.O.HAP.2.16. - Analyze the role of components and processes of the digestive system in supplying essential nutrients	SC.O.HAP.2.16. - Analyze the role of components and processes of the digestive system in supplying essential nutrients
WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	SC.O.CB.2.3. - Compare and contrast cell types:	WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects	WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects
WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	SC.O.CB.2.3.b. - Plant/animal	- Key Ideas and Details	- Key Ideas and Details
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.	SC.O.CB.2.5. - Predict and assess responses of organisms to internal and environmental stimuli:	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.11-12.1. - 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.
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.	SC.O.CB.2.5.a. - Homeostasis metabolism	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.11-12.9. - 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.
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).	SC.O.CB.2.6. - Correlate the properties of molecules to their movement through biological membranes:	WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects	WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects

<p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SC.O.CB.2.6.b. - Diffusion</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</p> <p>SC.O.HAP.2.1.a. - Proximal</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
--	--	---	---

SC.O.HAP.2.1.b. - Dorsal

SC.O.HAP.2.1.c. - Medial

SC.O.HAP.2.1.d. - Visceral

SC.O.HAP.2.1.e. - Superficial

SC.O.HAP.2.1.f. - Deep

SC.O.HAP.2.16. - Analyze the role of components and processes of the digestive system in supplying essential nutrients

WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects

- Key Ideas and Details

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.

WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects

WHST.9-10.1. - Write arguments focused on discipline-specific content.

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

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

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

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

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

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

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

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

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

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

WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.

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

WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.

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

			<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>		
Filtration -	WV	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</p> <p>SC.O.HAP.2.1.a. - Proximal</p>	<p>WV.SC.S.B. - Biology</p> <p>SC.S.B.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.B.2.3. - Compare and contrast cell types:</p> <p>SC.O.B.2.3.b. - Plant/animal</p>	<p>WV.SC.S.B.II. - Biology II</p> <p>SC.S.B.II.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.II.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.II.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.II.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.II.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.II.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.II.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.II.2.3. - Summarize the electrochemical gradients in various cells and their corresponding environments</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p>	<p>WV.SC.S.B.II. - Biology II</p> <p>SC.S.B.II.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.II.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.II.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.II.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.II.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.II.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.II.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.II.2.3. - Summarize the electrochemical gradients in various cells and their corresponding environments</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p>

SC.O.HAP.2.1.b. - Dorsal	SC.O.B.2.4. - Relate the structure and function of individual body systems to the overall functioning of the organism	SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results	SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results
SC.O.HAP.2.1.c. - Medial	SC.O.B.2.5. - Predict and assess responses of organisms to internal and environmental stimuli	SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)
SC.O.HAP.2.1.d. - Visceral	SC.O.B.2.6. - Analyze the chemistry and fluid mosaic model of the cell membrane as they relate to import and export of molecules necessary for life including:	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)
SC.O.HAP.2.1.e. - Superficial	SC.O.B.2.6.d. - Passive transport	SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)
SC.O.HAP.2.1.f. - Deep	SC.O.B.2.8. - Differentiate mechanisms of homeostasis in living systems (negative and positive feedback)	SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions	SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions
SC.O.HAP.2.16. - Analyze the role of components and processes of the digestive system in supplying essential nutrients	WV.SC.S.CB. - Conceptual Biology	SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)	SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)
SC.O.HAP.2.20. - Integrate the functions of the excretory system to the maintenance of the other body systems	SC.S.CB.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences
WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects	SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results	SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:	SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:
- Key Ideas and Details	SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	SC.O.HAP.2.1.a. - Proximal	SC.O.HAP.2.1.a. - Proximal
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.	SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.O.HAP.2.1.b. - Dorsal	SC.O.HAP.2.1.b. - Dorsal
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).	SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	SC.O.HAP.2.1.c. - Medial	SC.O.HAP.2.1.c. - Medial
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.	SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions	SC.O.HAP.2.1.d. - Visceral	SC.O.HAP.2.1.d. - Visceral
WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects	SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.O.HAP.2.1.e. - Superficial	SC.O.HAP.2.1.e. - Superficial

<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	<p>SC.O.CB.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.CB.2.3. - Compare and contrast cell types:</p> <p>SC.O.CB.2.3.b. - Plant/animal</p> <p>SC.O.CB.2.4. - Incorporate the structure and function of individual body systems to the overall functioning of the organism</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p>	<p>SC.O.HAP.2.1.f. - Deep</p> <p>SC.O.HAP.2.16. - Analyze the role of components and processes of the digestive system in supplying essential nutrients</p> <p>SC.O.HAP.2.20. - Integrate the functions of the excretory system to the maintenance of the other body systems</p> <p>WV.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>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>SC.O.HAP.2.1.f. - Deep</p> <p>SC.O.HAP.2.16. - Analyze the role of components and processes of the digestive system in supplying essential nutrients</p> <p>SC.O.HAP.2.20. - Integrate the functions of the excretory system to the maintenance of the other body systems</p> <p>WV.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>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
<p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</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>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>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>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
<p>WHST.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>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</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>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>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>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
<p>WHST.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>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p>	<p>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
<p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>

<p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</p> <p>SC.O.HAP.2.1.a. - Proximal</p> <p>SC.O.HAP.2.1.b. - Dorsal</p> <p>SC.O.HAP.2.1.c. - Medial</p> <p>SC.O.HAP.2.1.d. - Visceral</p> <p>SC.O.HAP.2.1.e. - Superficial</p> <p>SC.O.HAP.2.1.f. - Deep</p> <p>SC.O.HAP.2.16. - Analyze the role of components and processes of the digestive system in supplying essential nutrients</p> <p>SC.O.HAP.2.20. - Integrate the functions of the excretory system to the maintenance of the other body systems</p> <p>WV.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>WV.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.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
--	---	---

			<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2 - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3 - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>		
Membrane Potential -	WV	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p>	<p>WV.SC.S.B. - Biology</p> <p>SC.S.B.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p>

<p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p>	<p>SC.O.B.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.2.1. - Investigate and correlate the properties of chemical and biological molecules to their function in biochemical pathways</p>	<p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p>	<p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p>
<p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</p> <p>SC.O.HAP.2.1.a. - Proximal</p>	<p>SC.O.B.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.B.2.3. - Compare and contrast cell types:</p>	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p>	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p>
<p>SC.O.HAP.2.1.b. - Dorsal</p>	<p>SC.O.B.2.3.b. - Plant/animal</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p>
<p>SC.O.HAP.2.1.c. - Medial</p>	<p>SC.O.B.2.3.d. - Various body cells</p>	<p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p>	<p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p>
<p>SC.O.HAP.2.1.d. - Visceral</p>	<p>SC.O.B.2.4. - Relate the structure and function of individual body systems to the overall functioning of the organism</p>	<p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p>	<p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p>
<p>SC.O.HAP.2.1.e. - Superficial</p>	<p>SC.O.B.2.5. - Predict and assess responses of organisms to internal and environmental stimuli</p>		
<p>SC.O.HAP.2.1.f. - Deep</p>	<p>SC.O.B.2.6. - Analyze the chemistry and fluid mosaic model of the cell membrane as they relate to import and export of molecules necessary for life including:</p> <p>SC.O.B.2.6.e. - Dialysis</p>		
<p>SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:</p>	<p>SC.O.B.2.8. - Differentiate mechanisms of homeostasis in living systems (negative and positive feedback)</p>		
<p>SC.O.HAP.2.2.d. - Organ systems</p>			

<p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue: SC.O.HAP.2.3.d. - Nervous</p>	<p>WV.SC.S.CB. - Conceptual Biology</p> <p>SC.S.CB.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.CB.2.1. - Relate molecules to their functions in biochemical pathways</p> <p>SC.O.CB.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.CB.2.3. - Compare and contrast cell types:</p> <p>SC.O.CB.2.3.b. - Plant/animal</p> <p>SC.O.CB.2.3.c. - Various body cells</p> <p>SC.O.CB.2.4. - Incorporate the structure and function of individual body systems to the overall functioning of the organism</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p>	<p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures: SC.O.HAP.2.1.a. - Proximal</p> <p>SC.O.HAP.2.1.b. - Dorsal</p> <p>SC.O.HAP.2.1.c. - Medial</p> <p>SC.O.HAP.2.1.d. - Visceral</p> <p>SC.O.HAP.2.1.e. - Superficial</p> <p>SC.O.HAP.2.1.f. - Deep</p> <p>SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:</p> <p>SC.O.HAP.2.2.d. - Organ systems</p> <p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue: SC.O.HAP.2.3.d. - Nervous</p> <p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</p> <p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures: SC.O.HAP.2.1.a. - Proximal</p> <p>SC.O.HAP.2.1.b. - Dorsal</p> <p>SC.O.HAP.2.1.c. - Medial</p> <p>SC.O.HAP.2.1.d. - Visceral</p> <p>SC.O.HAP.2.1.e. - Superficial</p> <p>SC.O.HAP.2.1.f. - Deep</p> <p>SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:</p> <p>SC.O.HAP.2.2.d. - Organ systems</p> <p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue: SC.O.HAP.2.3.d. - Nervous</p> <p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</p> <p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>
<p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</p> <p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.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>WV.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>SC.O.CB.1.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.CB.2.1. - Relate molecules to their functions in biochemical pathways</p> <p>SC.O.CB.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.CB.2.3. - Compare and contrast cell types:</p> <p>SC.O.CB.2.3.b. - Plant/animal</p> <p>SC.O.CB.2.3.c. - Various body cells</p> <p>SC.O.CB.2.4. - Incorporate the structure and function of individual body systems to the overall functioning of the organism</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p>	<p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures: SC.O.HAP.2.1.a. - Proximal</p> <p>SC.O.HAP.2.1.b. - Dorsal</p> <p>SC.O.HAP.2.1.c. - Medial</p> <p>SC.O.HAP.2.1.d. - Visceral</p> <p>SC.O.HAP.2.1.e. - Superficial</p> <p>SC.O.HAP.2.1.f. - Deep</p> <p>SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:</p> <p>SC.O.HAP.2.2.d. - Organ systems</p> <p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue: SC.O.HAP.2.3.d. - Nervous</p> <p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</p> <p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures: SC.O.HAP.2.1.a. - Proximal</p> <p>SC.O.HAP.2.1.b. - Dorsal</p> <p>SC.O.HAP.2.1.c. - Medial</p> <p>SC.O.HAP.2.1.d. - Visceral</p> <p>SC.O.HAP.2.1.e. - Superficial</p> <p>SC.O.HAP.2.1.f. - Deep</p> <p>SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:</p> <p>SC.O.HAP.2.2.d. - Organ systems</p> <p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue: SC.O.HAP.2.3.d. - Nervous</p> <p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</p> <p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>

<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p>	<p>- Key Ideas and Details</p>	<p>- Key Ideas and Details</p>
<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	<p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p>	<p>RST.11-12.1.1. - 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.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p>
<p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	<p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</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.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</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>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</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>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>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</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>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>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p>	<p>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p>
<p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p>	<p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p>	<p>WHST.11-12.1.1. - Write arguments focused on discipline-specific content.</p>	<p>WHST.11-12.1.1. - Write arguments focused on discipline-specific content.</p>
<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>	<p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>
<p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</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>SC.O.HAP.2.1.a. - Proximal</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>SC.O.HAP.2.1.b. - Dorsal</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>
	<p>SC.O.HAP.2.1.c. - Medial</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. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>
	<p>SC.O.HAP.2.1.d. - Visceral</p>	<p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	<p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>

<p>SC.O.HAP.2.1.e. - Superficial</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>SC.O.HAP.2.1.f. - Deep</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>
<p>SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>
<p>SC.O.HAP.2.2.d. - Organ systems</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>
<p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:</p>	<p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>	<p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
<p>SC.O.HAP.2.3.d. - Nervous</p>	<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>	<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>
<p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</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>
<p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p>		
<p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p>		
<p>WV.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>WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>		
<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>		
<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>		
<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>		
<p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>		
<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>		

			<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>		
Membrane Transport -	WV	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p>	<p>WV.SC.S.B. - Biology</p> <p>SC.S.B.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p>

SC.O.HAP.2.3.d. - Nervous	SC.S.CB.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	SC.O.HAP.2.1.a. - Proximal	SC.O.HAP.2.1.a. - Proximal
SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function	SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results	SC.O.HAP.2.1.b. - Dorsal	SC.O.HAP.2.1.b. - Dorsal
SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels	SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	SC.O.HAP.2.1.c. - Medial	SC.O.HAP.2.1.c. - Medial
SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions	SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.O.HAP.2.1.d. - Visceral	SC.O.HAP.2.1.d. - Visceral
WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects	SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	SC.O.HAP.2.1.e. - Superficial	SC.O.HAP.2.1.e. - Superficial
- Key Ideas and Details	SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions	SC.O.HAP.2.1.f. - Deep	SC.O.HAP.2.1.f. - Deep
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.	SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:	SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:
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).	SC.O.CB.2.1. - Relate molecules to their functions in biochemical pathways	SC.O.HAP.2.2.d. - Organ systems	SC.O.HAP.2.2.d. - Organ systems
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.	SC.O.CB.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells	SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:	SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:
WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects	SC.O.CB.2.3. - Compare and contrast cell types:	SC.O.HAP.2.3.d. - Nervous	SC.O.HAP.2.3.d. - Nervous
WHST.9-10.1. - Write arguments focused on discipline-specific content.	SC.O.CB.2.3.b. - Plant/animal	SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function	SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function
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.	SC.O.CB.2.3.c. - Various body cells	SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels	SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels
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.	SC.O.CB.2.4. - Incorporate the structure and function of individual body systems to the overall functioning of the organism	SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions	SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions
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.	WV.SC.S.HAP. - Human Anatomy and Physiology	WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects	WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects
WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.	SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	- Key Ideas and Details	- Key Ideas and Details

<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</p> <p>SC.O.HAP.2.1.a. - Proximal</p> <p>SC.O.HAP.2.1.b. - Dorsal</p> <p>SC.O.HAP.2.1.c. - Medial</p> <p>SC.O.HAP.2.1.d. - Visceral</p> <p>SC.O.HAP.2.1.e. - Superficial</p> <p>SC.O.HAP.2.1.f. - Deep</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>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>	<p>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>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p>
--	--	---	---

<p>SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>
<p>SC.O.HAP.2.2.d. - Organ systems</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>
<p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:</p>	<p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>	<p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>
<p>SC.O.HAP.2.3.d. - Nervous</p>	<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>	<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>
<p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</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>
<p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p>		
<p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p>		
<p>WV.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>WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>		
<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>		
<p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p>		
<p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p>		
<p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p>		
<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>		
<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p>		
<p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>		

			<p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>		
Nitrogen Cycle -	WV	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p>	<p>WV.SC.S.B. - Biology</p> <p>SC.S.B.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.2.1. - Investigate and correlate the properties of chemical and biological molecules to their function in biochemical pathways</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p>

<p>WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects - Key Ideas and Details</p>	<p>SC.O.B.2.8. - Differentiate mechanisms of homeostasis in living systems (negative and positive feedback) SC.O.B.2.21. - Propose ecosystem models that incorporate interactions of biotic and abiotic environmental variables in biogeochemical cycles WV.SC.S.CB. - Conceptual Biology</p>	<p>SC.O.BII.2.5. - Examine the flow of energy through specific molecules in: SC.O.BII.2.5.c. - Krebs's cycle</p>	<p>SC.O.BII.2.5. - Examine the flow of energy through specific molecules in: SC.O.BII.2.5.c. - Krebs's cycle</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>WV.SC.S.CB. - Conceptual Biology</p>	<p>WV.SC.S.ENV. - Environmental Science</p>	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</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>SC.S.CB.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p>	<p>SC.S.ENV.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</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>SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p>	<p>SC.O.ENV.1.8. - Relate societal, cultural and economic issues to key scientific innovations</p>	<p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p>
<p>WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>SC.S.ENV.2. - Content of Science: Students will demonstrate knowledge understanding and applications of scientific facts, concepts, principles, theories, and models delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science, and astronomy; and apply knowledge, understanding and skills of science subject matter/concepts to daily life</p>	<p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>
<p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p>	<p>SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p>	<p>SC.O.ENV.2.1. - Compare and contrast the rate elements cycle through the ecosphere, describing natural and human influences on reaction rates:</p>	<p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</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>SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p>	<p>SC.O.ENV.2.1.b. - Nitrogen</p>	<p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</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>SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p>	<p>SC.O.ENV.2.2. - Explain how the chemical components of biological and physical processes fit in the overall process of biogeochemical cycling such as photosynthesis, respiration, nitrogen fixation, or decomposition</p>	<p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</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>SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p>	<p>SC.O.ENV.2.9. - Evaluate the leading causes of species decline and premature extinction:</p>	<p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p>
<p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>SC.O.CB.2.1. - Relate molecules to their functions in biochemical pathways</p>	<p>SC.O.ENV.2.9.c. - Pollution</p>	<p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p>
<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>	<p>SC.O.CB.2.5. - Predict and assess responses of organisms to internal and environmental stimuli:</p>	<p>SC.O.ENV.2.11. - Relate habitat changes to plant and animal populations and climate influences:</p>	<p>WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p>
<p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	<p>SC.O.CB.2.5.a. - Homeostasis metabolism</p>	<p>SC.O.ENV.2.11.b. - Fragmentation</p>	<p>- Key Ideas and Details</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>WV.SC.S.HAP. - Human Anatomy and Physiology</p>	<p>SC.O.ENV.2.25. - Analyze best management practices of the agriculture business:</p>	<p>RST.11-12.1. - Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p>

<p>WHST.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>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p>	<p>SC.O.ENV.2.25.c. - Associated water pollution</p>	<p>RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p>
<p>WHST.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>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p>	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</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.9-10.3. - (See note; not applicable as a separate requirement)</p>	<p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p>	<p>RST.11-12.10. - By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.</p>
<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>	<p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p>	<p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p>	<p>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</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>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p>	<p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p>
	<p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p>	<p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>
	<p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p>	<p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</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>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p>	<p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</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>WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects</p>	<p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>
	<p>- Key Ideas and Details</p>	<p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p>	<p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</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.	WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects	WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
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).	- Key Ideas and Details	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.
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.	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.	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.
WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects	RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.	WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.
WHST.9-10.1. - Write arguments focused on discipline-specific content.	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.	WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).
WHST.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.	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.	WHST.11-12.3. - (See note; not applicable as a separate requirement)
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.	WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects	WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.
WHST.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.11-12.1. - Write arguments focused on discipline-specific content.	WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.	WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.	
WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	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.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	WHST.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.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.	WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.	
WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.	WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	

			<p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	
--	--	--	--	---	--

<p>Osmosis -</p>	<p>WV</p>	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p>	<p>WV.SC.S.B. - Biology</p> <p>SC.S.B.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p>
------------------	-----------	---	---	---	---

<p>WV.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>WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	<p>SC.O.B.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.B.2.3. - Compare and contrast cell types:</p> <p>SC.O.B.2.3.b. - Plant/animal</p> <p>SC.O.B.2.5. - Predict and assess responses of organisms to internal and environmental stimuli</p> <p>SC.O.B.2.6. - Analyze the chemistry and fluid mosaic model of the cell membrane as they relate to import and export of molecules necessary for life including:</p> <p>SC.O.B.2.6.a. - Osmosis</p> <p>SC.O.B.2.8. - Differentiate mechanisms of homeostasis in living systems (negative and positive feedback)</p> <p>WV.SC.S.CB. - Conceptual Biology</p> <p>SC.S.CB.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>WV.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>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>WV.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>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>SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p>	<p>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p>	<p>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</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>SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</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.9-10.3. - (See note; not applicable as a separate requirement)</p>	<p>SC.O.CB.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>	<p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>
<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>	<p>SC.O.CB.2.3. - Compare and contrast cell types:</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.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SC.O.CB.2.3.b. - Plant/animal</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>SC.O.CB.2.6. - Correlate the properties of molecules to their movement through biological membranes:</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>
	<p>SC.O.CB.2.6.a. - Osmosis</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. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p>
	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p>	<p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>	<p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p>
<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</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.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</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>
<p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>	<p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>	<p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p>
<p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>	<p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p>

SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)

SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions

SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)

WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects
- Key Ideas and Details

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.

WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects

WHST.9-10.1. - Write arguments focused on discipline-specific content.

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

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

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

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

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

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

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

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

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

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

WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.

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

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

WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.

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

			<p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>		
Photosynthesis -	WV	<p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.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>WV.SC.S.B. - Biology</p> <p>SC.S.B.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.2.1. - Investigate and correlate the properties of chemical and biological molecules to their function in biochemical pathways</p> <p>SC.O.B.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.B.2.3. - Compare and contrast cell types:</p> <p>SC.O.B.2.3.b. - Plant/animal</p> <p>SC.O.B.2.6. - Analyze the chemistry and fluid mosaic model of the cell membrane as they relate to import and export of molecules necessary for life including:</p> <p>SC.O.B.2.6.a. - Osmosis</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p> <p>SC.O.BII.2.5. - Examine the flow of energy through specific molecules in:</p> <p>SC.O.BII.2.5.a. - Light dependent and light independent photosynthesis reactions</p> <p>SC.O.BII.2.5.c. - Krebs's cycle</p> <p>SC.O.BII.2.5.d. - EPS</p> <p>WV.SC.S.ENV. - Environmental Science</p>	<p>WV.SC.S.BII. - Biology II</p> <p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p> <p>SC.O.BII.2.5. - Examine the flow of energy through specific molecules in:</p> <p>SC.O.BII.2.5.a. - Light dependent and light independent photosynthesis reactions</p> <p>SC.O.BII.2.5.c. - Krebs's cycle</p> <p>SC.O.BII.2.5.d. - EPS</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p>

WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects	SC.O.B.2.7. - Quantitatively analyze the flow of energy through cellular processes:	SC.S.ENV.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions SC.O.ENV.1.8. - Relate societal, cultural and economic issues to key scientific innovations	SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)
WHST.9-10.1. - Write arguments focused on discipline-specific content.	SC.O.B.2.7.a. - Photosynthesis	SC.S.ENV.2. - Content of Science: Students will demonstrate knowledge understanding and applications of scientific facts, concepts, principles, theories, and models delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science, and astronomy; and apply knowledge, understanding and skills of science subject matter/concepts to daily life SC.O.ENV.2.9. - Evaluate the leading causes of species decline and premature extinction:	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions) SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps) SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions
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.	WV.SC.S.CB. - Conceptual Biology	SC.S.ENV.2.9.c. - Pollution	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions
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.	SC.S.CB.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	SC.O.ENV.2.11. - Relate habitat changes to plant and animal populations and climate influences:	
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.	SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results	SC.O.ENV.2.11.b. - Fragmentation	
WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.	SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	WV.SC.S.HAP. - Human Anatomy and Physiology	
WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results	
WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)		
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.	SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions		WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects
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.	SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences		- Key Ideas and Details

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).	SC.O.CB.2.1. - Relate molecules to their functions in biochemical pathways	SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol), accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	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.
WHST.9-10.3. - (See note; not applicable as a separate requirement)	SC.O.CB.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.	SC.O.CB.2.3. - Compare and contrast cell types:	SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	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.
WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	SC.O.CB.2.3.b. - Plant/animal	SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions	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.
	SC.O.CB.2.5. - Predict and assess responses of organisms to internal and environmental stimuli:	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects
	SC.O.CB.2.5.a. - Homeostasis metabolism	SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions	WHST.11-12.1. - Write arguments focused on discipline-specific content.
	SC.O.CB.2.6. - Correlate the properties of molecules to their movement through biological membranes:	WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects	WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.
	SC.O.CB.2.6.a. - Osmosis	- Key Ideas and Details	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.
	SC.O.CB.2.7. - Analyze the flow of energy through cellular processes:	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.	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.
	SC.O.CB.2.7.a. - Photosynthesis	RST.11-12.5. - Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.	WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.
	SC.O.CB.2.8. - Apply the absorption spectrum of photosynthetic pigments to the action of spectrum of photosynthesis	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.	WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
	SC.O.CB.2.22. - Predict the effects of human activities on biogeochemical cycles of matter and energy in the biosphere over time:	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.	WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
	SC.O.CB.2.22.d. - Climate change	WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects	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>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.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>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p>	<p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
---	---	--

Synaptic Transmission - WV			<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>WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	
		WV.SC.S.HAP. - Human Anatomy and Physiology	WV.SC.S.B. - Biology	WV.SC.S.BII. - Biology II	WV.SC.S.BII. - Biology II

<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p>	<p>SC.S.B.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.B.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.B.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.B.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.B.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.B.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.B.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.B.2.1. - Investigate and correlate the properties of chemical and biological molecules to their function in biochemical pathways</p> <p>SC.O.B.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.B.2.3. - Compare and contrast cell types:</p>	<p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p> <p>WV.SCS.HAP. - Human Anatomy and Physiology</p>	<p>SC.S.BII.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.BII.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.BII.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.BII.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.BII.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.BII.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</p> <p>SC.S.BII.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</p> <p>SC.O.BII.2.1. - Correlate functional groups to unique properties of organic molecules to biochemical pathways</p> <p>WV.SCS.HAP. - Human Anatomy and Physiology</p>
<p>SC.O.HAP.2.1.a. - Proximal</p>	<p>SC.O.B.2.3.b. - Plant/animal</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>
<p>SC.O.HAP.2.1.b. - Dorsal</p>	<p>SC.O.B.2.3.d. - Various body cells</p>	<p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>	<p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p> <p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p>
<p>SC.O.HAP.2.1.c. - Medial</p>			

SC.O.HAP.2.1.d. - Visceral	SC.O.B.2.4. - Relate the structure and function of individual body systems to the overall functioning of the organism	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)
SC.O.HAP.2.1.e. - Superficial	SC.O.B.2.5. - Predict and assess responses of organisms to internal and environmental stimuli	SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)
SC.O.HAP.2.1.f. - Deep	SC.O.B.2.6. - Analyze the chemistry and fluid mosaic model of the cell membrane as they relate to import and export of molecules necessary for life including: SC.O.B.2.6.e. - Dialysis	SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions	SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions
SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:		SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)	SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)
SC.O.HAP.2.2.d. - Organ systems	SC.O.B.2.8. - Differentiate mechanisms of homeostasis in living systems (negative and positive feedback)	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences
SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue: SC.O.HAP.2.3.d. - Nervous	WV.SC.S.CB. - Conceptual Biology SC.S.CB.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions	SC.O.HAP.2.1. - Apply directional terminology to locate human body structures: SC.O.HAP.2.1.a. - Proximal	SC.O.HAP.2.1. - Apply directional terminology to locate human body structures: SC.O.HAP.2.1.a. - Proximal
SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function	SC.O.CB.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results	SC.O.HAP.2.1.b. - Dorsal	SC.O.HAP.2.1.b. - Dorsal
SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels	SC.O.CB.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)	SC.O.HAP.2.1.c. - Medial	SC.O.HAP.2.1.c. - Medial
SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions	SC.O.CB.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)	SC.O.HAP.2.1.d. - Visceral	SC.O.HAP.2.1.d. - Visceral
WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects	SC.O.CB.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)	SC.O.HAP.2.1.e. - Superficial	SC.O.HAP.2.1.e. - Superficial
- Key Ideas and Details	SC.O.CB.1.7. - Given current science-technology-societal issues, construct and defend potential solutions	SC.O.HAP.2.1.f. - Deep	SC.O.HAP.2.1.f. - Deep
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.	SC.S.CB.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences	SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:	SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:

<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>WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.9-10.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.9-10.1(a) - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>WHST.9-10.1(b) - Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</p> <p>WHST.9-10.1(c) - Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.9-10.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p>	<p>SC.O.CB.2.1. - Relate molecules to their functions in biochemical pathways</p> <p>SC.O.CB.2.2. - Relate the structure of cellular organelles to their functions and interactions in eukaryotic cells</p> <p>SC.O.CB.2.3. - Compare and contrast cell types:</p> <p>SC.O.CB.2.3.b. - Plant/animal</p> <p>SC.O.CB.2.3.c. - Various body cells</p> <p>SC.O.CB.2.4. - Incorporate the structure and function of individual body systems to the overall functioning of the organism</p> <p>WV.SC.S.HAP. - Human Anatomy and Physiology</p> <p>SC.S.HAP.1. - Nature and Application of Science: Students will demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists; demonstrate the ability to use the inquiry process to solve problems; relate science-technology-societal issues while using a variety of sources to construct and defend their solutions</p> <p>SC.O.HAP.1.2. - Formulate scientific explanations based on historical observations and experimental evidence, accounting for variability in experimental results</p>	<p>SC.O.HAP.2.2.d. - Organ systems</p> <p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:</p> <p>SC.O.HAP.2.3.d. - Nervous</p> <p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</p> <p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>	<p>SC.O.HAP.2.2.d. - Organ systems</p> <p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:</p> <p>SC.O.HAP.2.3.d. - Nervous</p> <p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</p> <p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.RST.11-12. - Reading Standards for Literacy in Science and Technical Subjects</p> <p>- Key Ideas and Details</p>
<p>WHST.9-10.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.9-10.2(a) - Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.9-10.2(b) - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>	<p>SC.O.HAP.1.3. - Conduct and/or design investigations that incorporate the skills and attitudes and/or values of scientific inquiry (e.g., established research protocol, accurate record keeping, replication of results and peer review, objectivity, openness, skepticism, fairness, or creativity and logic)</p> <p>SC.O.HAP.1.4. - Design, conduct, evaluate and revise experiments (e.g., compose a question to be investigated, design a controlled investigation that produces numeric data, evaluate the data in the context of scientific laws and principles, construct a conclusion based on findings, propose revisions to investigations based on manipulation of variables and/or analysis of error, or communicate and defend the results and conclusions)</p> <p>SC.O.HAP.1.5. - Draw conclusions from a variety of data sources to analyze and interpret systems and models (e.g., use graphs and equations to measure and apply variables such as rate and scale, evaluate changes in trends and cycles, or predict the influence of external variances such as potential sources of error, or interpret maps)</p> <p>SC.O.HAP.1.7. - Given current science-technology-societal issues, construct and defend potential solutions</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.11-12.1. - 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.9-10.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>WHST.9-10.2(f) - Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>WHST.9-10.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p>	<p>SC.O.HAP.1.9. - Synthesize concepts across various science disciplines to better understand the natural world (e.g., form and function, systems, or change over time)</p> <p>SC.S.HAP.2. - Content of Science: Students will demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science and astronomy; apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences</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>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>	<p>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>WV.WHST.11-12. - Writing Standards for Literacy in Science and Technical Subjects</p> <p>WHST.11-12.1. - Write arguments focused on discipline-specific content.</p> <p>WHST.11-12.1(a) - Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</p>

<p>WHST.9-10.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>SC.O.HAP.2.1. - Apply directional terminology to locate human body structures:</p> <p>SC.O.HAP.2.1.a. - Proximal</p> <p>SC.O.HAP.2.1.b. - Dorsal</p> <p>SC.O.HAP.2.1.c. - Medial</p> <p>SC.O.HAP.2.1.d. - Visceral</p> <p>SC.O.HAP.2.1.e. - Superficial</p> <p>SC.O.HAP.2.1.f. - Deep</p> <p>SC.O.HAP.2.2. - Describe the organizational levels, interdependency and the interaction of:</p> <p>SC.O.HAP.2.2.d. - Organ systems</p> <p>SC.O.HAP.2.3. - Categorize, by structure and function, the various types of human tissue:</p> <p>SC.O.HAP.2.3.d. - Nervous</p> <p>SC.O.HAP.2.10. - Classify the various types of neurons emphasizing the relationship of structure and function</p> <p>SC.O.HAP.2.11. - Model the mechanism of a nerve impulse at the cellular and molecular levels</p> <p>SC.O.HAP.2.14. - Apply the action of specific enzymes to their roles in bodily functions</p> <p>WV.RST.9-10. - Reading Standards for Literacy in Science and Technical Subjects - 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>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>WHST.11-12.1(b) - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p> <p>WHST.11-12.1(c) - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</p> <p>WHST.11-12.1(e) - Provide a concluding statement or section that follows from or supports the argument presented.</p> <p>WHST.11-12.2. - Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>WHST.11-12.2(a) - Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>WHST.11-12.2(b) - Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>WHST.11-12.2(c) - Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>WHST.11-12.2(d) - Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.2(e) - Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</p> <p>WHST.11-12.3. - (See note; not applicable as a separate requirement)</p> <p>WHST.11-12.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.</p> <p>WHST.11-12.4. - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
--	---	--	--

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.

WV.WHST.9-10. - Writing Standards for Literacy in Science and Technical Subjects

WHST.9-10.1. - Write arguments focused on discipline-specific content.

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

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

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

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

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

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

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

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

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

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

WHST.9-10.3(a) - Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.

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



Publisher content is reviewed and aligned to educational standards by EdGate's experienced and highly skilled subject experts giving the high quality results demanded by today's market.