

Warren County School District
PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Advanced Biology – Honors

Course Number: 00317

Course Prerequisites: Academic Biology

Course Description: (Include “no final exam” or “final exam required”)

Advanced Biology is an honors course offered to students who have successfully completed Academic Biology. It is highly recommended to students who desire to attend college and/or pursue a career in a biological related field. The main approach to the course is at the molecular level with an emphasis on ecology, systematics, and surveys the viruses and major phyla of living things. The course involves varied types of instruction including in depth lab analysis with the use of technological devices.

Suggested Grade Level: 10-12

Length of Course: _____ One Semester X Two Semesters _____ Other (Describe)

Units of Credit: 1 (Insert **NONE** if appropriate.)

PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certification(s) (Insert certificate title and CSPG#) Biology

Certification verified by WCSD Human Resources Department:

 X Yes No

Board Approved Textbooks, Software, Materials:

Title: Biology Concepts and Connections

Publisher: Pearson

ISBN #: 0-13-135566-X

Copyright Date: 2009

Date of WCSD Board Approval: 4/12/10

BOARD APPROVAL:

Date Written: November 2012

Date Approved:

Implementation Year: 2012-2013

SPECIAL EDUCATION AND GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student's Individual Education Plan (IEP) or Gifted Individual Education Plan (GIEP).

SPECIFIC EDUCATIONAL STANDARDS, ESSENTIAL QUESTIONS, CONTENT, & SKILLS

Keystone Anchors – BIO; **Common Core** – Reading: RST, Writing: WHST

Year: 2012-13

Course: Advanced Biology - Honors

Month: All Months

A u g u s t	Classification				
	Standards	Essential Questions	Content	Skills	Resources
	<p>BIO.B.3.2.1-Interpret evidence supporting the theory of evolution (i.e., fossil, anatomical, physiological, embryological, biochemical, and universal genetic code).</p> <p>RST.11.4-Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.</p> <p>RST.11.8-Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p>	How do scientists classify living things?	<ul style="list-style-type: none"> Systematics and phylogeny Kingdoms and domains Cladistic Analysis 	<ul style="list-style-type: none"> Explain how living things are classified. Explain how evolutionary relationships are important in classification. Make and interpret a cladogram. 	<p>Textbook and Teacher Resources: <u>Biology Concepts and Connections</u>, Campbell, Reece</p>
S e p t e m b e r	Viruses and Prokaryotes				
	Standards	Essential Questions	Content	Skills	Resources
	<p>BIO.A.1.1.1-Describe the characteristics of life shared by all prokaryotic and eukaryotic organisms.</p> <p>BIO.A.1.2-Describe relationships between structure and function at biological levels of organization.</p> <p>BIO.A.1.2.1-Compare cellular structures and their functions in prokaryotic and eukaryotic cells.</p> <p>BIO.A.1.2.2-Describe and interpret relationships between structure and function at various levels of biological organization (i.e., organelles, cells, tissues, organs, organ systems, and multicellular</p>	What is the difference between viruses and cells like bacteria?	<ul style="list-style-type: none"> Structure of viruses Viral Life Cycles Emerging viruses Structure of prokaryotes Classification of prokaryotes Reproductive strategies and gene transfer 	<ul style="list-style-type: none"> Describe the basic structure of a virus. Explain how viruses cause disease. Describe the structural features of the major groups of 	<p>Textbook and teacher resources: <u>Biology, Concepts and Connections</u>, Campbell and Reece</p>

<p>organisms).</p> <p>RST.11.1-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.11.2-Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>RST.11.3-Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p>RST.11.5-Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>WHST.11-12.1.d-Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</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>		<ul style="list-style-type: none"> Helpful and harmful bacteria 	<p>bacteria.</p> <ul style="list-style-type: none"> Explain the life cycles of the major groups of bacteria. Explain how bacteria benefit the ecosystem. Explain how some bacteria cause disease. 	
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O c t o b e r

Immune System and Protists

Standards	Essential Questions	Content	Skills	Resources
RST.11.2-Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.	<p>How does the body fight against invading organisms that may disrupt homeostasis?</p> <p>How do protists affect</p>	<ul style="list-style-type: none"> Koch's postulates Nonspecific defenses Specific defenses Disorders of the immune system 	<ul style="list-style-type: none"> Explain how the human immune system functions. Describe the 	Textbook and teacher resources: <u>Biology, Concepts and Connections</u> ,

<p>RST.11.3-Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p>RST.11.4-Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.</p> <p>RST.11.5-Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11.8-Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p>BIO.A.4.2-Explain mechanisms that permit organisms to maintain biological balance between their internal and external environments.</p>	<p>the homeostasis of other organisms and ecosystems?</p>	<ul style="list-style-type: none"> • Evolution of eukaryotes • Classification of protists • Major structural features of protists • Life cycles of protists 	<p>structural features of the major groups of protists.</p> <ul style="list-style-type: none"> • Describe the life cycles of the major groups of protists. • Identify several protists that cause disease. 	<p>Campbell and Reece</p>
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N o v e m b e r

Fungi

Standards	Essential Questions	Content	Skills	Resources
<p>BIO.A.4.2-Explain mechanisms that permit organisms to maintain biological balance between their internal and external environments.</p> <p>BIO.A.4.2.1-Explain how organisms maintain homeostasis (e.g., thermoregulation, water regulation, oxygen regulation).</p> <p>WHST.11-12.2-Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>RST.11.2-Determine the central ideas or</p>	<p>How do fungi affect the homeostasis of other organisms and ecosystems?</p>	<ul style="list-style-type: none"> • Classification of fungi • Structural features of the major groups of fungi • Life Cycles of fungi • Helpful and harmful fungi 	<ul style="list-style-type: none"> • Describe the structural features of the major groups of fungi. • Describe the life cycles of the major groups of fungi. • Explain the role of fungi in the 	<p>Textbook and teacher resources: <u>Biology, Concepts and Connections</u>, Campbell and Reece</p>

conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. RST.11.3-Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.			ecosystem. • Explain how fungi can cause disease in plants and animals.	
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D e c e m b e r

Plants

Standards	Essential Questions	Content	Skills	Resources
<p>BIO.A.1.1-Explain the characteristics common to all organisms.</p> <p>BIO.A.1.1.1-Describe the characteristics of life shared by all prokaryotic and eukaryotic organisms.</p> <p>BIO.A.1.2-Describe relationships between structure and function at biological levels of organization.</p> <p>BIO.A.1.2.2-Describe and interpret relationships between structure and function at various levels of biological organization (i.e., organelles, cells, tissues, organs, organ systems, and multicellular organisms).</p> <p>BIO.A.2.1-Describe how the unique properties of water support life on Earth.</p> <p>BIO.A.2.1.1-Describe the unique properties of water and how these properties support life on Earth (e.g., freezing point, high specific heat, cohesion).</p> <p>BIO.A.4.1-Identify and describe the cell structures involved in transport of materials into, out of, and throughout a cell.</p> <p>BIO.A.4.2-Explain mechanisms that permit organisms to maintain biological balance between</p>	<ul style="list-style-type: none"> • How have the four major groups of plants adapted to life on land? • How are the major systems organized to carry out the basic functions of seed plants? • How do changes in the environment affect the reproduction, development, and growth of plants? 	<ul style="list-style-type: none"> • Plant evolution and adaptation to life on land • Structural features of the major groups of plants • Alternation of generations life cycle • Reproduction and development • Nutrient uptake and transport • Nutrient deficiencies • Control systems 	<ul style="list-style-type: none"> • Describe how plants have adapted to life on land. • Explain the alternation of generations life cycle. • Explain how plants take up and transport nutrients. • Explain how primary and secondary growth occur. • Explain how plant hormones regulate growth responses. 	<p>Textbook and teacher resources: <u>Biology, Concepts and Connections</u>, Campbell and Reece</p>

their internal and external environments.

BIO.A.4.2.1-Explain how organisms maintain homeostasis (e.g., thermoregulation, water regulation, oxygen regulation).

RST.11.2-Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.

RST.11.3-Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

RST.11.4-Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

RST.11.5-Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.

RST.11.6-Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.

RST.11.8-Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.

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).

Plants Continued

Standards	Essential Questions	Content	Skills	Resources
<p>BIO.A.1.1-Explain the characteristics common to all organisms.</p> <p>BIO.A.1.1.1-Describe the characteristics of life shared by all prokaryotic and eukaryotic organisms.</p> <p>BIO.A.1.2-Describe relationships between structure and function at biological levels of organization.</p> <p>BIO.A.1.2.2-Describe and interpret relationships between structure and function at various levels of biological organization (i.e., organelles, cells, tissues, organs, organ systems, and multicellular organisms).</p> <p>BIO.A.2.1-Describe how the unique properties of water support life on Earth.</p> <p>BIO.A.2.1.1-Describe the unique properties of water and how these properties support life on Earth (e.g., freezing point, high specific heat, cohesion).</p> <p>BIO.A.4.1-Identify and describe the cell structures involved in transport of materials into, out of, and throughout a cell.</p> <p>BIO.A.4.2-Explain mechanisms that permit organisms to maintain biological balance between their internal and external environments.</p> <p>BIO.A.4.2.1-Explain how organisms maintain homeostasis (e.g., thermoregulation, water regulation, oxygen regulation).</p> <p>RST.11.2-Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>RST.11.3-Follow precisely a complex multistep</p>	<ul style="list-style-type: none"> • How have the four major groups of plants adapted to life on land? • How are the major systems organized to carry out the basic functions of seed plants? • How do changes in the environment affect the reproduction, development, and growth of plants? 	<ul style="list-style-type: none"> • Plant evolution and adaptation to life on land • Structural features of the major groups of plants • Alternation of generations life cycle • Reproduction and development • Nutrient uptake and transport • Nutrient deficiencies • Control systems 	<ul style="list-style-type: none"> • Describe how plants have adapted to life on land. • Explain the alternation of generations life cycle. • Explain how plants take up and transport nutrients. • Explain how primary and secondary growth occurs. • Explain how plant hormones regulate growth responses. 	<p>Textbook and teacher resources: <u>Biology, Concepts and Connections</u>, Campbell and Reece</p>

<p>procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p>RST.11.4-Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.</p> <p>RST.11.5-Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11.6-Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.</p> <p>RST.11.8-Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</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>				
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Animals

Standards	Essential Questions	Content	Skills	Resources
BIO.A.1.1-Explain the characteristics common to all organisms.	• What traits define animals?	• Classification of invertebrates	• Describe the structural features of the major groups of animals.	Textbook and teacher resources:
BIO.A.1.2-Describe relationships between structure and function at biological levels of organization.	• How do the structures of animals allow them to exchange materials with their	• Structural features of the major groups of invertebrates	• Describe the life	<u>Biology, Concepts and Connections</u> , Campbell and Reece
BIO.A.1.2.2-Describe and interpret relationships		• Life cycles of the		

<p>between structure and function at various levels of biological organization (i.e., organelles, cells, tissues, organs, organ systems, and multicellular organisms).</p> <p>BIO.A.3.2-Identify and describe how organisms obtain and transform energy for their life processes.</p> <p>BIO.A.4.2-Explain mechanisms that permit organisms to maintain biological balance between their internal and external environments.</p> <p>BIO.A.4.2.1-Explain how organisms maintain homeostasis (e.g., thermoregulation, water regulation, oxygen regulation).</p> <p>RST.11.1-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.11.2-Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>RST.11.3-Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p>RST.11.4-Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.</p> <p>RST.11.5-Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11.6-Analyze the author's purpose in</p>	<p>environment?</p>	<p>major groups of invertebrates</p> <ul style="list-style-type: none"> • Classification of vertebrates • Structural features of the major groups of vertebrates • Life cycles of the major groups of vertebrates 	<p>cycles of the major groups of animals.</p> <ul style="list-style-type: none"> • Explain how digestion, respiration, circulation, excretion, response, movement and reproduction occur in the major groups of animals. 	
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<p>providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.</p> <p>RST.11.7-Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</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.11-12.9-Draw evidence from informational texts to support analysis, reflection, and research.</p>				
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M a r c h Animals Continued

Standards	Essential Questions	Content	Skills	Resources
<p>BIO.A.1.1-Explain the characteristics common to all organisms.</p> <p>BIO.A.1.2-Describe relationships between structure and function at biological levels of organization.</p> <p>BIO.A.1.2.2-Describe and interpret relationships between structure and function at various levels of biological organization (i.e., organelles, cells, tissues, organs, organ systems, and multicellular organisms).</p> <p>BIO.A.3.2-Identify and describe how organisms obtain and transform energy for their life processes.</p> <p>BIO.A.4.2-Explain mechanisms that permit organisms to maintain biological balance between their internal and external environments.</p> <p>BIO.A.4.2.1-Explain how organisms maintain homeostasis (e.g., thermoregulation, water regulation, oxygen regulation).</p>	<ul style="list-style-type: none"> • What traits define animals? • How do the structures of animals allow them to exchange materials with their environment? 	<ul style="list-style-type: none"> • Classification of invertebrates • Structural features of the major groups of invertebrates • Life cycles of the major groups of invertebrates • Classification of vertebrates • Structural features of the major groups of vertebrates • Life cycles of the major groups of vertebrates 	<ul style="list-style-type: none"> • Describe the structural features of the major groups of animals. • Describe the life cycles of the major groups of animals. • Explain how digestion, respiration, circulation, excretion, response, movement and reproduction occur in the major groups of 	<p>Textbook and teacher resources: <u>Biology, Concepts and Connections</u>, Campbell and Reece</p>

<p>RST.11.1-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.11.2-Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>RST.11.3-Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p>RST.11.4-Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.</p> <p>RST.11.5-Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11.6-Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.</p> <p>RST.11.7-Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</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.11-12.9-Draw evidence from informational</p>			animals.	
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	texts to support analysis, reflection, and research.				
A p p r i l	Ecology				
	Standards	Essential Questions	Content	Skills	Resources
	<p>BIO.B.4.1-Describe ecological levels of organization in the biosphere.</p> <p>BIO.B.4.1.1-Describe the levels of ecological organization (i.e., organism, population, community, ecosystem, biome, and biosphere).</p> <p>BIO.B.4.1.2-Describe characteristic biotic and abiotic components of aquatic and terrestrial ecosystems.</p> <p>BIO.B.4.2.3-Describe how matter recycles through an ecosystem (i.e., water cycle, carbon cycle, oxygen cycle, and nitrogen cycle).</p> <p>BIO.B.4.2.4-Describe how ecosystems change in response to natural and human disturbances (e.g., climate changes, introduction of nonnative species, pollution, fires).</p> <p>BIO.B.4.2.5-Describe the effects of limiting factors on population dynamics and potential species extinction.</p> <p>RST.11.1-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.11.2-Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>RST.11.3-Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p>	<ul style="list-style-type: none"> How do abiotic and biotic factors shape ecosystems? 	<ul style="list-style-type: none"> Population growth Population density Life histories Structural features of communities Energy flow in the ecosystem Nutrient cycles Types of learning in animals Biological rhythms Social behavior 	<ul style="list-style-type: none"> Describe how populations change. Explain the structural features of communities, such as competition, predation, and symbioses lead to diverse adaptations in organisms. Explain ecosystem dynamics such as energy flow and nutrient cycling. Differentiate between different types of learning in animal populations. Explain how social behavior benefits animal populations. 	<p>Textbook and teacher resources: <u>Biology, Concepts and Connections</u>, Campbell and Reece</p>

<p>RST.11.4-Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.</p> <p>RST.11.5-Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11.6-Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.</p> <p>RST.11.7-Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p>RST.11.8-Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p>WHST.11-12.9-Draw evidence from informational texts to support analysis, reflection, and research.</p>				
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May Ecology Continued

Standards	Essential Questions	Content	Skills	Resources
<p>BIO.B.4.1-Describe ecological levels of organization in the biosphere.</p> <p>BIO.B.4.1.1-Describe the levels of ecological organization (i.e., organism, population, community, ecosystem, biome, and biosphere).</p> <p>BIO.B.4.1.2-Describe characteristic biotic and abiotic components of aquatic and terrestrial ecosystems.</p> <p>BIO.B.4.2.3-Describe how matter recycles through</p>	<ul style="list-style-type: none"> How do abiotic and biotic factors shape ecosystems? 	<ul style="list-style-type: none"> Population growth Population density Life histories Structural features of communities Energy flow in the ecosystem Nutrient cycles Types of learning in 	<ul style="list-style-type: none"> Describe how populations change. Explain the structural features of communities, such as competition, 	<p>Textbook and teacher resources: <u>Biology, Concepts and Connections</u>, Campbell and Reece</p>

<p>an ecosystem (i.e., water cycle, carbon cycle, oxygen cycle, and nitrogen cycle).</p> <p>BIO.B.4.2.4-Describe how ecosystems change in response to natural and human disturbances (e.g., climate changes, introduction of nonnative species, pollution, fires).</p> <p>BIO.B.4.2.5-Describe the effects of limiting factors on population dynamics and potential species extinction.</p> <p>RST.11.1-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.11.2-Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p>RST.11.3-Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p>RST.11.4-Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.</p> <p>RST.11.5-Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.11.6-Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.</p> <p>RST.11.7-Integrate and evaluate multiple sources</p>		<p>animals</p> <ul style="list-style-type: none"> • Biological rhythms • Social behavior 	<p>predation, and symbioses lead to diverse adaptations in organisms.</p> <ul style="list-style-type: none"> • Explain ecosystem dynamics such as energy flow and nutrient cycling. • Differentiate between different types of learning in animal populations. • Explain how social behavior benefits animal populations. 	
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<p>of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p>RST.11.8-Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p>WHST.11-12.9-Draw evidence from informational texts to support analysis, reflection, and research.</p>				
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ASSESSMENTS

Suggested Formative Assessments: The teacher will develop and use standards-based assessments throughout the course.

- Pre-Assessments of prior knowledge (e.g. entrance cards or KWL chart)
- Labs/lab reports
- Bell ringers/Problems of the Day(PODs)
- Discussions
- Teacher observation/Questioning
- Graphic organizers (e.g. Venn diagrams, word mapping, webbing, KWL chart, etc.)
- Summarizing
- Retelling
- Notetaking
- Problem-based learning modules
- Authentic assessment
- Oral presentations
- Outlining
- Journaling
- Student presentations/projects
- Open-ended response
- Classroom Performance System (CPS)

Suggested Summative Assessments:

- Essays
- Open-Ended Responses
- Projects
- Quizzes/tests

- Student presentations
- Portfolios
- Lab Practical
- Lab Reports

District Approved Assessment Instruments

- Any district approved assessment instrument

Portfolio Assessment: _____ Yes X No

District-wide Final Examination Required: _____ Yes X No

Course Challenge Assessment (Describe):

WRITING TEAM: WCSD Biology Teachers

WCSD STUDENT DATA SYSTEM INFORMATION

1. Is there a required final examination? X Yes _____ No
2. Does this course issue a mark/grade for the report card?
 X Yes _____ No
3. Does this course issue a Pass/Fail mark? _____ Yes X No
4. Is the course mark/grade part of the GPA calculation?
 X Yes _____ No
5. Is the course eligible for Honor Roll calculation? X Yes _____ No
6. What is the academic weight of the course?
 _____ No weight/Non credit _____ Standard weight
 X Enhanced weight (Describe) As per current school board policy