

Main Criteria: Tennessee Academic Standards

Secondary Criteria: Virtual Field Trips

Subjects: Science, Social Studies

Grade: 9

Correlation Options: Show Correlated

Tennessee Academic Standards

Science

Grade: 9 - Adopted: 2008

STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.Inq.	Inquiry: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.Inq.	What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
LEARNING EXPECTATION	CLE 3210.Inq.	Course Level Expectations
INDICATOR	CLE 3210.Inq.1.	Recognize that science is a progressive endeavor that reevaluates and extends what is already accepted. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.Inq.	Inquiry: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.Inq.	What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
LEARNING EXPECTATION	3210.Inq.	Checks for Understanding
INDICATOR	3210.Inq.1.	Trace the historical development of a scientific principle or theory, such as cell theory, evolution, or DNA structure. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3210.T/E.	Course Level Expectations
INDICATOR	CLE 3210.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3210.T/E.	Checks for Understanding
INDICATOR	3210.T/E.3.	Explore how the unintended consequences of new technologies can impact human and non-human communities.

		<u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	SPI 3210.T/E.	State Performance Indicators
INDICATOR	SPI 3210.T/E.3.	Evaluate the overall benefit to cost ratio of a new technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.2.	Interdependence: All life is interdependent and interacts with the environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.2.	How do living things interact with one another and with the non-living elements of their environment?
LEARNING EXPECTATION	CLE 3210.2.	Course Level Expectations
INDICATOR	CLE 3210.2.1.	Investigate how the dynamic equilibrium of an ecological community is associated with interactions among its organisms. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3210.2.2.	Analyze and interpret population data, graphs, or diagrams. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	CLE 3210.2.3.	Predict how global climate change, human activity, geologic events, and the introduction of non-native species impact an ecosystem. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3210.2.4.	Describe the sequence of events associated with biological succession. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.2.	Interdependence: All life is interdependent and interacts with the environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.2.	How do living things interact with one another and with the non-living elements of their environment?
LEARNING EXPECTATION	3210.2.	Checks for Understanding
INDICATOR	3210.2.3.	Monitor and evaluate changes in a yeast population. <u>Virtual Field Trips</u>

		La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3210.2.4.	Investigate an outdoor habitat to identify the abiotic and biotic factors, plant and animal populations, producers, consumers, and decomposers. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3210.2.5.	Conduct research on how human influences have changed an ecosystem and communicate findings through written or oral presentations. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3210.2.6.	Describe a sequence of events that illustrates biological succession. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.2.	Interdependence: All life is interdependent and interacts with the environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.2.	How do living things interact with one another and with the non-living elements of their environment?
LEARNING EXPECTATION	SPI 3210.2.	State Performance Indicators
INDICATOR	SPI 3210.2.1.	Predict how population changes of organisms at different trophic levels affect an ecosystem. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	SPI 3210.2.2.	Interpret the relationship between environmental factors and fluctuations in population size. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	SPI 3210.2.4.	Predict how various types of human activities affect the environment. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	SPI 3210.2.5.	Make inferences about how a specific environmental change can affect the amount of biodiversity. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol

		La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	SPI 3210.2.6.	Predict how a specific environmental change may lead to the extinction of a particular species. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	SPI 3210.2.7.	Analyze factors responsible for the changes associated with biological succession. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.3.	Flow of Matter and Energy: Matter cycles and energy flows through the biosphere.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.3.	What are the scientific explanations for how matter cycles and energy flows through the biosphere?
LEARNING EXPECTATION	CLE 3210.3.	Course Level Expectations
INDICATOR	CLE 3210.3.1.	Analyze energy flow through an ecosystem. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	CLE 3210.3.4.	Describe the events which occur during the major biogeochemical cycles. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.3.	Flow of Matter and Energy: Matter cycles and energy flows through the biosphere.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.3.	What are the scientific explanations for how matter cycles and energy flows through the biosphere?
LEARNING EXPECTATION	3210.3.	Checks for Understanding
INDICATOR	3210.3.1.	Track energy flow through an ecosystem. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3210.3.5.	Construct models of the carbon, oxygen, nitrogen, phosphorous, and water cycles. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.3.	Flow of Matter and Energy: Matter cycles and energy flows through the biosphere.

GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.3.	What are the scientific explanations for how matter cycles and energy flows through the biosphere?
LEARNING EXPECTATION	SPI 3210.3.	State Performance Indicators
INDICATOR	SPI 3210.3.1.	Interpret a diagram that illustrates energy flow in an ecosystem. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	SPI 3210.3.4.	Predict how changes in a biogeochemical cycle can affect an ecosystem. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.4.	Heredity: Organisms reproduce and transmit hereditary information.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.4.	What are the principal mechanisms by which living things reproduce and transmit hereditary information from parents to offspring?
LEARNING EXPECTATION	3210.4.	Checks for Understanding
INDICATOR	3210.4.2.	Complete and interpret genetic problems that illustrate sex linkage, co-dominance, incomplete dominance, multiple alleles, and polygenic inheritance. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii The Amazon Rainforest - Part 1 - Older Grades
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.5.	Biodiversity and Change: A rich variety and complexity of organisms have developed in response to changes in the environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.5.	How does natural selection explain how organisms have changed over time?
LEARNING EXPECTATION	CLE 3210.5.	Course Level Expectations
INDICATOR	CLE 3210.5.1.	Associate structural, functional, and behavioral adaptations with the ability of organisms to survive under various environmental conditions. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3210.5.2.	Analyze the relationship between form and function in living things. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3210.5.3.	Explain how genetic variation in a population and changing environmental conditions are associated with adaptation and the

		emergence of new species. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	CLE 3210.5.5.	Explain how evolution contributes to the amount of biodiversity. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.5.	Biodiversity and Change: A rich variety and complexity of organisms have developed in response to changes in the environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.5.	How does natural selection explain how organisms have changed over time?
LEARNING EXPECTATION	3210.5.	Checks for Understanding
INDICATOR	3210.5.2.	Explain how natural selection operates in the development of a new species. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3210.	Biology I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3210.5.	Biodiversity and Change: A rich variety and complexity of organisms have developed in response to changes in the environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3210.5.	How does natural selection explain how organisms have changed over time?
LEARNING EXPECTATION	SPI 3210.5.	State Performance Indicators
INDICATOR	SPI 3210.5.1.	Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	SPI 3210.5.2.	Recognize the relationship between form and function in living things. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	SPI 3210.5.3.	Recognize the relationships among environmental change, genetic variation, natural selection, and the emergence of a new species. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	SPI 3210.5.6.	Infer relatedness among different organisms using modern classification systems. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3216.	Biology II

CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.Inq.	Inquiry: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.Inq.	What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
LEARNING EXPECTATION	CLE 3216.Inq.	Course Level Expectations
INDICATOR	CLE 3216.Inq.1.	Recognize that science is a progressive endeavor that reevaluates and extends what is already accepted. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.Inq.	Inquiry: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.Inq.	What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
LEARNING EXPECTATION	3216.Inq.	Checks for Understanding
INDICATOR	3216.Inq.1.	Trace the historical development of a scientific principle or theory, such as cell theory, evolution, or DNA structure. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3216.T/E.	Course Level Expectations
INDICATOR	CLE 3216.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3216.T/E.	Checks for Understanding
INDICATOR	3216.T/E.4.	Explore how the unintended consequences of new technologies can impact human and non-human communities. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3216.T/E.5.	Evaluate the overall benefit to cost ratio of a new technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.2.	Interdependence: All life is interdependent and interacts with the environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.2.	How do living things interact with one another and with the non-living elements of their environment?

LEARNING EXPECTATION	CLE 3216.2.	Course Level Expectations
INDICATOR	CLE 3216.2.1.	Describe how the stability of an ecosystem is maintained. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3216.2.2.	Investigate the major factors that influence population size and age distribution. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	CLE 3216.2.3.	Describe the varying degrees to which individual organisms are able to accommodate changes in the environment. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.2.	Interdependence: All life is interdependent and interacts with the environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.2.	How do living things interact with one another and with the non-living elements of their environment?
LEARNING EXPECTATION	3216.2.	Checks for Understanding
INDICATOR	3216.2.1.	Analyze the ecological impact of a change in climate, human activity, introduction of non-native species, and changes in population size over time. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3216.2.2.	Investigate how fluctuations in population size in an ecosystem are determined by the relative rates of birth, death, immigration, and emigration. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3216.2.3.	Investigate how human changes to the environment have led populations to adapt, migrate, or become extinct. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades

STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.3.	Flow of Matter and Energy: Matter cycles and energy flows through the biosphere.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.3.	What are the scientific explanations for how matter cycles and energy flows through the biosphere?
LEARNING EXPECTATION	CLE 3216.3.	Course Level Expectations
INDICATOR	CLE 3216.3.1.	Describe the role of biotic and abiotic factors in the cycling of matter in the ecosystem. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.3.	Flow of Matter and Energy: Matter cycles and energy flows through the biosphere.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.3.	What are the scientific explanations for how matter cycles and energy flows through the biosphere?
LEARNING EXPECTATION	3216.3.	Checks for Understanding
INDICATOR	3216.3.1.	Describe how water, carbon, oxygen, and nitrogen cycle between the biotic and abiotic elements of the environment. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3216.3.3.	Design an experiment to separate plant leaf pigments. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.5.	Biodiversity and Change: A rich variety and complexity of organisms have developed in response to changes in the environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.5.	How does natural selection explain how organisms have changed over time?
LEARNING EXPECTATION	3216.5.	Checks for Understanding
INDICATOR	3216.5.3.	Describe how reproductive and geographic isolation affect speciation. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3216.5.5.	Explain how amount of biodiversity is affected by habitat alteration. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.6.	Comparative Anatomy and Physiology: All living organisms are both alike and different.

GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.6.	In what ways are all living organisms similar and what makes a species unique?
LEARNING EXPECTATION	CLE 3216.6.	Course Level Expectations
INDICATOR	CLE 3216.6.1.	Investigate the unity and the diversity among living things. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks West - Nevada, California The Amazon Rainforest - Part 1 - Older Grades
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.6.	Comparative Anatomy and Physiology: All living organisms are both alike and different.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.6.	In what ways are all living organisms similar and what makes a species unique?
LEARNING EXPECTATION	3216.6.	Checks for Understanding
INDICATOR	3216.6.1.	Describe how the activities of major body systems help to maintain homeostasis. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks West - Nevada, California
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.7.	Botany: Plants are essential for life to exist.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.7.	What conditions are needed for plants to grow and reproduce?
LEARNING EXPECTATION	CLE 3216.7.	Course Level Expectations
INDICATOR	CLE 3216.7.2.	Investigate the relationship between form and function for the major plant structures. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3216.7.3.	Examine the anatomical and physiological differences between plants and their growth, reproduction, survival, and co-evolution. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3216.7.4.	Describe the difference between plants and fungi. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3216.7.5.	Investigate the impact of plants on humans. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3216.	Biology II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3216.7.	Botany: Plants are essential for life to exist.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3216.7.	What conditions are needed for plants to grow and reproduce?
LEARNING EXPECTATION	3216.7.	Checks for Understanding

INDICATOR	3216.7.4.	Investigate the significance of structural and physiological adaptations of plants. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3216.7.7.	Prepare a presentation about plants that are harmful or beneficial to humans. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3216.7.8.	Describe co-evolution among various plant and animal species. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
STRAND / STANDARD / COURSE	TN.3221.	Chemistry I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3221.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3221.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3221.T/E.	Course Level Expectations
INDICATOR	CLE 3221.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3221.	Chemistry I
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3221.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3221.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	SPI 3221.T/E.	State Performance Indicators
INDICATOR	SPI 3221.T/E.3.	Evaluate the overall benefit to cost ratio of a new technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3222.	Chemistry II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3222.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3222.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3222.T/E.	Course Level Expectations
INDICATOR	CLE 3222.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades

STRAND / STANDARD / COURSE	TN.3222.	Chemistry II
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3222.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3222.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3222.T/E.	Checks for Understanding
INDICATOR	3222.T/E.5.	Evaluate the overall benefit to cost ratio of a new technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3237.	Physical World Concepts
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3237.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3237.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3237.T/E.	Course Level Expectations
INDICATOR	CLE 3237.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3237.T/E.3.	Explain the relationship between the properties of a material and the use of the material in the application of a technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3237.	Physical World Concepts
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3237.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3237.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3237.T/E.	Checks For Understanding
INDICATOR	3237.T/E.3.	Explore how the unintended consequences of new technologies can impact human and non-human communities. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3237.T/E.4.	Present research on current engineering technologies that contribute to improvements in our daily lives. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3237.	Physical World Concepts
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3237.Math.	Embedded Mathematics: Physics applies mathematics to investigate questions, solve problems, and communicate findings.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3237.Math.	What mathematical skills and understandings are needed to successfully investigate conceptual physics?
LEARNING EXPECTATION	CLE 3237.Math.	Course Level Expectations
INDICATOR	CLE 3237.Math.2.	Utilize appropriate mathematical equations and processes to solve basic physics problems.

		<u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3237.	Physical World Concepts
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3237.Math.	Embedded Mathematics: Physics applies mathematics to investigate questions, solve problems, and communicate findings.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3237.Math.	What mathematical skills and understandings are needed to successfully investigate conceptual physics?
LEARNING EXPECTATION	3237.Math.	Checks For Understanding
INDICATOR	3237.Math.6.	Model real-world phenomena using functions and graphs. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
INDICATOR	3237.Math.17.	Demonstrate an understanding of rates and other derived and indirect measurements (e.g., velocity, miles per hour, revolutions per minute, and cost per unit). <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3237.	Physical World Concepts
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3237.1.	Mechanics: The laws and properties of mechanics provide the foundations of Conceptual Physics.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3237.1.	How do the laws and properties of mechanics govern the basic understanding of physics concepts?
LEARNING EXPECTATION	3237.1.	Checks For Understanding
INDICATOR	3237.1.1.	Investigate, measure, and calculate position, displacement, velocity and acceleration. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3204.	Earth Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3204.Inq.	Inquiry: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3204.Inq.	What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
LEARNING EXPECTATION	3204.Inq.	Checks for Understanding
INDICATOR	3204.Inq.1.	Trace the historical development of a scientific principle or theory, such as plate tectonics, evolution of the cosmos, and global change. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
STRAND / STANDARD / COURSE	TN.3204.	Earth Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3204.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3204.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3204.T/E.	Course Level Expectations
INDICATOR	CLE 3204.T/E.1.	Explore the impact of technology on social, political, and economic systems.

		<u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3204.T/E.3.	Explain the relationship between the properties of a material and the use of the material in the application of a technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3204.	Earth Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3204.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3204.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3204.T/E.	Checks for Understanding
INDICATOR	3204.T/E.4.	Explore how the unintended consequences of new technologies can impact human and non-human communities. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3204.T/E.5.	Evaluate the overall benefit to cost ratio of a new technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3204.	Earth Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3204.1.	The Universe: The cosmos is vast and explored well enough to know its basic structure and operational principles.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3204.1.	What big ideas guide human understanding about the origin and structure of the universe, Earth's place in the cosmos, and observable motions and patterns in the sky?
LEARNING EXPECTATION	3204.1.	Checks for Understanding
INDICATOR	3204.1.6.	Explore the role of astronomical events in the earth's history: asteroid/meteor impacts, solar flares, and comets. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3204.	Earth Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3204.2.	Energy in the Earth System: Energy cycles drive the earth system.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3204.2.	What are the scientific explanations for how energy cycles through the earth system?
LEARNING EXPECTATION	3204.2.	Checks For Understanding
INDICATOR	3204.2.4.	Distinguish between renewable and nonrenewable resources in terms of resource conservation. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3204.2.8.	Describe the energy transfer associated with different geologic events: mantle convection, rock cycle, wind, and ocean currents. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3204.2.9.	Describe the human impact of large scale energy transfer events: hurricanes, photosynthesis, earthquakes, volcanoes, and tsunamis. <u>Virtual Field Trips</u>

		National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah
INDICATOR	3204.2.11.	Compare energy sources and heat transfer over geologic time to current patterns of global change. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks of the Western Region - Part 1
STRAND / STANDARD / COURSE	TN.3204.	Earth Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3204.3.	Cycles in the Earth System: The earth system consists of interrelated subcycles that act over extended periods of geologic time.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3204.3.	What are the subcycles of the earth system and how do they interact?
LEARNING EXPECTATION	CLE 3204.3.	Course Level Expectations
INDICATOR	CLE 3204.3.1.	Explain the components of the tectonic cycle. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	CLE 3204.3.5.	Differentiate among the geochemical cycles. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3204.3.6.	Evaluate the impact of living organisms on earth system cycles. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3204.	Earth Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3204.3.	Cycles in the Earth System: The earth system consists of interrelated subcycles that act over extended periods of geologic time.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3204.3.	What are the subcycles of the earth system and how do they interact?
LEARNING EXPECTATION	3204.3.	Checks for Understanding
INDICATOR	3204.3.1.	Use models to explain the theory of plate tectonics. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	3204.3.3.	Explain and map the relationship between plate tectonics and mountain building, volcanoes, and earthquakes. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks West - Nevada, California National Parks West - Wyoming, Utah
INDICATOR	3204.3.4.	Distinguish between minerals and rocks. <u>Virtual Field Trips</u> National Parks West - Wyoming, Utah
INDICATOR	3204.3.9.	Distinguish between mechanical and chemical weathering. <u>Virtual Field Trips</u> National Parks West - Wyoming, Utah

INDICATOR	3204.3.10.	Describe the impact of water on the evolution of landforms. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	3204.3.13.	Explain the oxygen/carbon dioxide, nitrogen, and carbon biogeochemical cycles. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3204.3.14.	Recognize the connection between geologic processes such as floods, earthquakes, volcanoes, acid rain, global warming and human activities. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	3204.3.15.	Construct a geological cycle for a physiographic region or geologic time period in Tennessee. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3204.	Earth Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3204.4.	Geologic History: The earth has changed over a long period and global change is a continuation of this evolutionary process.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3204.4.	What is the scientific evidence for the evolution of earth and life on earth?
LEARNING EXPECTATION	CLE 3204.4.	Course Level Expectations
INDICATOR	CLE 3204.4.2.	Investigate the evolution of the earth. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	CLE 3204.4.4.	Demonstrate the impact of environmental change on the origin and extinction of plant and animal species. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3204.	Earth Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3204.4.	Geologic History: The earth has changed over a long period and global change is a continuation of this evolutionary process.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3204.4.	What is the scientific evidence for the evolution of earth and life on earth?
LEARNING EXPECTATION	3204.4.	Checks for Understanding
INDICATOR	3204.4.5.	Interpret evidence for plate tectonics such as the fossil record, mountain range formation, rock strata, paleomagnetism, paleoclimates, and configuration of the continents. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California

		National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	3204.4.9.	Predict how an environmental change might influence the development of new species or cause the extinction of an existing species. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.Inq.	Inquiry: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.Inq.	What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
LEARNING EXPECTATION	CLE 3255.Inq.	Course Level Expectations
INDICATOR	CLE 3255.Inq.1.	Recognize that science is a progressive endeavor that reevaluates and extends what is already accepted. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255. T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255. T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3255.T/E.	Course Level Expectations
INDICATOR	CLE 3255.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3255.T/E.3.	Explain the relationship between the properties of a material and the use of the material in the application of a technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255. T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255. T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3255. T/E.	Checks for Understanding
INDICATOR	3255. T/E.3.	Explore how the unintended consequences of new technologies can impact human and non-human communities. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.1.	Individuals: The individual organism is the basic unit of ecology.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.1.	What determines the survival of individuals in a population?

LEARNING EXPECTATION	CLE 3255.1.	Course Level Expectations
INDICATOR	CLE 3255.1.1.	Analyze strategies for classifying organisms. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	CLE 3255.1.2.	Identify organisms based on how they obtain energy. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3255.1.3.	Relate specific animal behaviors and plant tropisms to survival. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks West - Wyoming, Utah The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3255.1.4.	Investigate various approaches to maintain biodiversity. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.1.	Individuals: The individual organism is the basic unit of ecology.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.1.	What determines the survival of individuals in a population?
LEARNING EXPECTATION	3255.1.	Checks for Understanding
INDICATOR	3255.1.1.	Develop a visual aid to illustrate the major characteristics of the six kingdoms. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3255.1.4.	Distinguish among herbivores, carnivores, and omnivores. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3255.1.6.	Investigate animal behavior by observing common invertebrates: termites, isopods, mealworms or bess beetles. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks West - Wyoming, Utah The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3255.1.8.	Investigate techniques and findings of the All Taxa Biodiversity Inventories (ATBI) underway in the Great Smoky Mountains National Park and Tennessee State Parks. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii

		National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.2.	Populations: A population is composed of a single species within a specified area.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.2.	What are some characteristics of populations?
LEARNING EXPECTATION	CLE 3255.2.	Course Level Expectations
INDICATOR	CLE 3255.2.2.	Explain population growth patterns and rates. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.2.	Populations: A population is composed of a single species within a specified area.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.2.	What are some characteristics of populations?
LEARNING EXPECTATION	3255.2.	Checks for Understanding
INDICATOR	3255.2.1.	Define population and describe several examples of populations in different ecosystems. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3255.2.2.	Identify distribution patterns (random, uniform, clumped with groups random) and populations that exhibit each of these patterns. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3255.2.3.	Using a population of yeast, duckweed or other suitable species, design and conduct an experiment to evaluate population growth and carrying capacity. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3255.2.5.	Evaluate populations based on age structure, distribution, and density. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3255.2.6.	Draw and/or label population growth curves representing exponential growth, logistic growth and carrying capacity. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3255.2.7.	Illustrate the type of survivorship curves created by r-strategists and K-strategists. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3255.2.8.	Research case studies (Tasmanian sheep, St. Matthew's Island reindeer, Isle Royale) to illustrate the consequences of logistic and exponential growth.

		<u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3255.2.9.	Compare case studies of evolution such as Galapagos finches, peppered moths, and salamanders in the Smoky Mountains. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.3.	Communities: Communities are groups of interacting populations.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.3.	How do populations interact to produce stable communities?
LEARNING EXPECTATION	CLE 3255.3.	Course Level Expectations
INDICATOR	CLE 3255.3.2.	Relate species interactions such as competition, predation and symbiosis to coevolution. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.3.	Communities: Communities are groups of interacting populations.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.3.	How do populations interact to produce stable communities?
LEARNING EXPECTATION	3255.3.	Checks for Understanding
INDICATOR	3255.3.3.	Distinguish among the following roles and cite Tennessee examples of each: native species, non-native species, invasive species, indicator species, "keystone" species. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3255.3.4.	Discuss how competition and predation regulate population size. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3255.3.6.	Distinguish among the three forms of symbiotic relationships. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3255.3.7.	Describe structural and behavioral adaptations for survival used by predators and prey. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.4.	Ecosystems: An ecosystem is a community that interacts with the physical environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.4.	How do ecosystems change over time?
LEARNING EXPECTATION	CLE 3255.4.	Course Level Expectations

INDICATOR	CLE 3255.4.2.	Describe how matter cycles through various biogeochemical cycles. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3255.4.3.	Evaluate the process of succession. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	CLE 3255.4.4.	Summarize the human impact on ecosystems. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3255.4.5.	Describe how biodiversity relates to stability of an ecosystem. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks West - Nevada, California The Amazon Rainforest - Part 1 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.4.	Ecosystems: An ecosystem is a community that interacts with the physical environment.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.4.	How do ecosystems change over time?
LEARNING EXPECTATION	3255.4.	Checks for Understanding
INDICATOR	3255.4.2.	Illustrate each of the following biogeochemical cycles: water, carbon, nitrogen, and phosphorus. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3255.4.3.	Distinguish between primary and secondary biological succession. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3255.4.4.	Explore a local area and examine the abiotic and biotic factors relating to succession and ecosystem structure. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3255.4.5.	Summarize how disturbance contributes to succession and ecosystem stability. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California

		National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.5.	Biomes: A biome is a region of the earth with characteristic types of natural ecological communities.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.5.	How are earth's biomes distributed?
LEARNING EXPECTATION	CLE 3255.5.	Course Level Expectations
INDICATOR	CLE 3255.5.1.	Explain how climate influences terrestrial biomes. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3255.5.2.	Compare and contrast the major terrestrial biomes: deserts, temperate grasslands, temperate forests, tropical grasslands, tropical forests, taiga and tundra. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3255.5.3.	Examine the major marine and freshwater biomes. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3255.5.5.	Identify how humans impact biomes. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.5.	Biomes: A biome is a region of the earth with characteristic types of natural ecological communities.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.5.	How are earth's biomes distributed?
LEARNING EXPECTATION	3255.5.	Checks for Understanding
INDICATOR	3255.5.1.	Illustrate how temperature, precipitation, latitude, and altitude influence terrestrial biomes.

		<u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3255.5.2.	Research and create a visual to summarize the climate, soil, location, plant adaptations, animal adaptations, and human threats to each of the major terrestrial biomes. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3255.5.3.	Research and create a visual to summarize abiotic factors, location, plant adaptations, animal adaptations, and human threats to marine and freshwater biomes. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3255.5.5.	Compare two or more ecological equivalents and how they are specifically adapted to their particular biome (black/grizzly bears, Asian/African elephants, snowshoe/cottontail/jack rabbit). <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.6.	Humans and Sustainability: Human activities have reduced the earth's biodiversity .
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.6.	What can individuals do to sustain biodiversity locally and globally?
LEARNING EXPECTATION	CLE 3255.6.	Course Level Expectations
INDICATOR	CLE 3255.6.1.	Investigate the role of public lands in sustaining biodiversity. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3255.6.2.	Examine state, national, and international efforts to sustain native species and ecosystems. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California

		National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3255.6.3.	Evaluate the impact of personal actions on the environment. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3255.	Ecology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3255.6.	Humans and Sustainability: Human activities have reduced the earth's biodiversity .
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3255.6.	What can individuals do to sustain biodiversity locally and globally?
LEARNING EXPECTATION	3255.6.	Checks for Understanding
INDICATOR	3255.6.1.	Differentiate the purposes of State and National Parks, Wildlife Refuges, and Forests. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3255.6.2.	Design a vacation brochure, poster, slide show presentation or commercial advertisement that extols the virtues of a given area (e.g., state or national parks/forests) and ecotourism opportunities that may be found there. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3255.6.3.	Research and paraphrase local, national, and international environmental legislation enacted to sustain biodiversity (e.g., The Lacy Act, Endangered Species Act, National Marine Fisheries Act, TWRA Hunting and Fishing Regulations, CITES). <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3255.6.4.	Develop a timeline that illustrates major local, national and international environmental legislation enacted to sustain biodiversity. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah

		National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3255.6.6.	Research issues surrounding the adoption of environmentally and socially responsible behaviors (e.g., proper waste disposal, using fuel efficient transportation, planting native species, purchasing locally grown food, reducing/eliminating dependence on 'one use' products). <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3255.6.7.	Create a list of the "Five Biggest Threats to the Global Environment." <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.Inq.	Inquiry: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.Inq.	What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
LEARNING EXPECTATION	CLE 3260.Inq.	Course Level Expectations
INDICATOR	CLE 3260.Inq.1.	Recognize that science is a progressive endeavor that reevaluates and extends what is already accepted. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260. T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260. T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3260.T/E.	Course Level Expectations
INDICATOR	CLE 3260.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3260.T/E.3.	Explain the relationship between the properties of a material and the use of the material in the application of a technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science

CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260. T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260. T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3260. T/E.	Checks for Understanding
INDICATOR	3260. T/E.3.	Explore how the unintended consequences of new technologies can impact human and non-human communities. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.1.	Earth System: Abiotic factors exert a profound influence on the global ecosystem.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.1.	How do abiotic factors sustain life on earth?
LEARNING EXPECTATION	CLE 3260.1.	Course Level Expectations
INDICATOR	CLE 3260.1.1.	Explain how earth's position in the solar system creates global climate patterns. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks West - Nevada, California The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3260.1.2.	Use the theory of plate tectonics to explain the occurrence of earthquakes, volcanoes, and tsunamis. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.2.	The Living World: The global ecosystem involves interactions between biotic and abiotic factors.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.2.	How do living things interact with each other and the abiotic components of the environment?
LEARNING EXPECTATION	CLE 3260.2.	Course Level Expectations
INDICATOR	CLE 3260.2.2.	Discuss the roles of biodiversity and coevolution in ecosystems. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks West - Nevada, California The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	CLE 3260.2.3.	Using temperature, latitude and altitude, infer the types of animal and plant life found in each of earth's major biomes. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3260.2.4.	Distinguish between primary and secondary biological succession using common plants and animals.

		<u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	CLE.3260.2.5.	Explain biogeochemical cycling in ecosystems. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.2.	The Living World: The global ecosystem involves interactions between biotic and abiotic factors.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.2.	How do living things interact with each other and the abiotic components of the environment?
LEARNING EXPECTATION	3260.2.	Checks for Understanding
INDICATOR	3260.2.4.	Describe how species biodiversity relates to ecosystem stability. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks West - Nevada, California The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3260.2.5.	Describe plant and animal adaptations found in each of earth's major biomes. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.2.6.	Identify the locations of earth's major biomes using a globe or map. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.2.7.	Develop a visual display to compare and contrast primary and secondary biological succession in one of earth's major biomes or aquatic habitats. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3260.2.8.	Explain how human activities such as lawn mowing, gardening, farming, logging, planting trees, mining, and urban development advance, halt, or slow succession. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks West - Nevada, California The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.2.9.	Draw and explain diagrams illustrating each of the following biogeochemical cycles: water, carbon, nitrogen and phosphorus. <u>Virtual Field Trips</u>

		La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.3.	Human Population: Worldwide, human population is growing exponentially.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.3.	What factors affect human population growth?
LEARNING EXPECTATION	CLE 3260.3.	Course Level Expectations
INDICATOR	CLE 3260.3.1.	Demonstrate how human population growth over time has been affected by improved food production, healthcare, sanitation and industrial advances. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.4.	Water and Land Resources: Humans use natural resources in a variety of ways.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.4.	How can natural resources be sustainably managed for the benefit of all living things?
LEARNING EXPECTATION	CLE 3260.4.	Course Level Expectations
INDICATOR	CLE 3260.4.1.	Examine common resource use practices in agriculture, forestry, urban/suburban development, mining, and fishing. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3260.4.2.	Explore best management practices related to water and soil resources. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3260.4.3.	Compare and contrast preservation and conservation. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3260.4.4.	Evaluate the impact of human activities on natural resources. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.4.	Water and Land Resources: Humans use natural resources in a variety of ways.

GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.4.	How can natural resources be sustainably managed for the benefit of all living things?
LEARNING EXPECTATION	3260.4.	Checks for Understanding
INDICATOR	3260.4.1.	Differentiate between renewable and nonrenewable resources. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.4.2.	Summarize how environmental problems (e.g., erosion, desertification, acid deposition, simplified ecosystems, and soil salinization) are associated with farming practices and soil conservation practices. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.4.3.	Investigate the impact of the green revolution on world food production and on the environment. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.4.5.	Summarize the ecological services and economic benefits provided by forests. <u>Virtual Field Trips</u> National Parks West - Nevada, California The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.4.6.	Summarize the environmental impact of extracting, processing, and using mineral resources. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
INDICATOR	3260.4.8.	Use an environmentally significant case study (e.g., oil exploration in the Alaskan Wildlife Refuge) to explain the difference between preservation and conservation. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.4.9.	Summarize the roles of various public and private organizations (e.g., Nature Conservancy, Sierra Club, National Wildlife Federation, World Wildlife Fund, U.S. Forest Service, U.S. Fish and Wildlife, Bureau of Land Management, Department of Interior, Tennessee Wildlife resource Agency, Tennessee Department of Environment and Conservation) involved in natural resource protection and use. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.4.10.	Research a Tennessee city, such as Chattanooga. Incorporate green design features into a plan for sustainable development in your community. <u>Virtual Field Trips</u>

		Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.4.11.	Research and summarize U.S. environmental laws related to natural resources (e.g., Resource Conservation and Recovery Act, Surface Mining Control and Reclamation Act, Food Quality Protection Act, Endangered Species Act, Soil Conservation Act, and National Park Service Act). <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.5.	Energy Resources and Consumption: Humans use both renewable and nonrenewable sources of energy.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.5.	What are the environmental consequences of energy use?
LEARNING EXPECTATION	3260.5.	Checks for Understanding
INDICATOR	3260.5.3.	Summarize renewable and nonrenewable energy use and consumption through time. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.6.	Waste Production and Pollution: Many human activities result in pollution.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.6.	How can we mimic nature to provide goods and services for the growing human population in ways that do not pollute the environment?
LEARNING EXPECTATION	CLE 3260.6.	Course Level Expectations
INDICATOR	CLE 3260.6.1.	Investigate the causes, environmental effects, and methods for controlling/preventing land, air and water pollution. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3260.6.4.	Research local and national environmental legislation related to protecting land, air and water resources. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.6.	Waste Production and Pollution: Many human activities result in pollution.

GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.6.	How can we mimic nature to provide goods and services for the growing human population in ways that do not pollute the environment?
LEARNING EXPECTATION	3260.6.	Checks for Understanding
INDICATOR	3260.6.5.	<p>Research major U.S. Environmental Legislation such as National Environmental Policy Act of 1969 (NEPA), The Clean Air Act, The Clean Water Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), The Oil Pollution Act of 1990 (OPA), The Pollution Prevention Act (PPA), The Resource Conservation and Recovery Act (RCRA), The Safe Drinking Water Act (SWDA), The Toxic Substances Control Act (TSCA).</p> <p><u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades</p>
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.7.	Global Change And Civic Responsibility: Human interaction with the local environment has global consequences.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.7.	How do the decisions of one generation create opportunities and impose limitations for future generations?
LEARNING EXPECTATION	CLE 3260.7.	Course Level Expectations
INDICATOR	CLE 3260.7.2.	<p>Compare and contrast methods used by various governments to protect biodiversity.</p> <p><u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades</p>
INDICATOR	CLE 3260.7.3.	<p>Explain how human activity is related to ozone depletion and climate change.</p> <p><u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks of the Western Region - Part 1</p>
INDICATOR	CLE 3260.7.4.	<p>Summarize the scientific explanation for average global temperature increase.</p> <p><u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks of the Western Region - Part 1</p>
STRAND / STANDARD / COURSE	TN.3260.	Environmental Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3260.7.	Global Change And Civic Responsibility: Human interaction with the local environment has global consequences.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3260.7.	How do the decisions of one generation create opportunities and impose limitations for future generations?
LEARNING EXPECTATION	3260.7.	Checks for Understanding
INDICATOR	3260.7.1.	<p>Interview a senior citizen about past use and disposal of resources and compare with common practices today.</p> <p><u>Virtual Field Trips</u> Galapagos Islands - Espagnol</p>

		National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.7.2.	Compare and contrast industrial agriculture and sustainable agriculture. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.7.3.	Identify how environmental protection can be carried out on a local level and explain choices that can be made to lessen the impact on the environment. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.7.4.	Choose three endangered species and predict how their removal would affect the ecosystems in which they live. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.7.5.	Research the effectiveness of the U.S. Endangered Species Act. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.7.6.	Research major international environmental issues and how they are addressed by international agreements (Kyoto, Montreal, CITES, etc.). <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3260.7.9.	Explain the trend in atmospheric CO2 levels indicated by ice core data and CO2 measurements recorded at Mauna Loa since 1958. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks of the Western Region - Part 1
STRAND / STANDARD / COURSE	TN.3205.	Geology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.Inq.	Inquiry: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.Inq.	What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
LEARNING EXPECTATION	3205.Inq.	Checks for Understanding

INDICATOR	3205.Inq.1.	Trace the historical development of a scientific principle or theory, such as plate tectonics, evolution of landforms, and global climate change. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
STRAND / STANDARD / COURSE	TN.3205.	Geology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3205.T/E.	Course Level Expectations
INDICATOR	CLE 3205.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3205.	Geology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3205.T/E.	Checks for Understanding
INDICATOR	3205.T/E.4.	Explore how the unintended consequences of new technologies can impact human and non-human communities. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3205.T/E.5.	Evaluate the overall benefit to cost ratio of a new technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3205.	Geology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.2.	Matter and Minerals: Minerals are naturally occurring substances formed through geological processes that have characteristic physical and chemical properties.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.2.	How do minerals form and what are their unique characteristics?
LEARNING EXPECTATION	CLE 3205.2.	Course Level Expectations
INDICATOR	CLE 3205.2.3.	Describe the geologic processes that result in mineral formation. <u>Virtual Field Trips</u> National Parks West - Wyoming, Utah
STRAND / STANDARD / COURSE	TN.3205.	Geology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.2.	Matter and Minerals: Minerals are naturally occurring substances formed through geological processes that have characteristic physical and chemical properties.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.2.	How do minerals form and what are their unique characteristics?

LEARNING EXPECTATION	3205.2.	Checks for Understanding
INDICATOR	3205.2.8.	Construct models of the six major crystal systems. <u>Virtual Field Trips</u> National Parks West - Wyoming, Utah
INDICATOR	3205.2.10.	Create a presentation for a mineral that includes its physical properties, an illustration, mining technique, occurrence, and use. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah
INDICATOR	3205.2.12.	Create a brochure on the mineral resources of Tennessee. <u>Virtual Field Trips</u> National Parks West - Wyoming, Utah
STRAND / STANDARD / COURSE	TN.3205.	Geology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.4.	Geologic History: The earth has changed over a long period and global change is a continuation of that evolutionary process.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.4.	What is the scientific evidence for the evolution of earth and life on earth?
LEARNING EXPECTATION	CLE 3205.4.	Course Level Expectations
INDICATOR	CLE 3205.4.2.	Investigate the evolution of earth. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	CLE 3205.4.5.	Demonstrate the impact of environmental change on the origin and extinction of plant and animal species. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3205.	Geology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.4.	Geologic History: The earth has changed over a long period and global change is a continuation of that evolutionary process.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.4.	What is the scientific evidence for the evolution of earth and life on earth?
LEARNING EXPECTATION	3205.4.	Checks for Understanding
INDICATOR	3205.4.9.	Describe the evidence for plate tectonics such as fossil record, mountain ranges, rock strata, paleomagnetism, paleoclimates, and the configuration of continents. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	3205.4.12.	Predict how an environmental change will affect the development of new species or the extinction of an existing species. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3205.	Geology

CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.5.	Plate Tectonics: Plate tectonics is the grand unifying theory of geology.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.5.	How does the theory of plate tectonics connect all geologic processes and explain major geologic phenomena?
LEARNING EXPECTATION	CLE 3205.5.	Course Level Expectations
INDICATOR	CLE 3205.5.1.	Describe the major evidence to explain the theory of plate tectonics. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	CLE 3205.5.4.	Describe processes associated with volcanoes, earthquakes, and mountain building. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah
STRAND / STANDARD / COURSE	TN.3205.	Geology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.5.	Plate Tectonics: Plate tectonics is the grand unifying theory of geology.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.5.	How does the theory of plate tectonics connect all geologic processes and explain major geologic phenomena?
LEARNING EXPECTATION	3205.5.	Checks for Understanding
INDICATOR	3205.5.1.	Identify plate boundaries on a diagram. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3205.5.5.	Identify the evidence for plate tectonics such as paleomagnetism, fossil record, continental boundaries, and hot spots. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	3205.5.7.	Investigate the relationships among volcanoes, earthquake activity, and plate boundaries. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
INDICATOR	3205.5.9.	Distinguish between an anticline and a syncline. <u>Virtual Field Trips</u> National Parks West - Wyoming, Utah
INDICATOR	3205.5.10.	Correlate plate movement by plotting the movement of plates over hot spots. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah
STRAND / STANDARD / COURSE	TN.3205.	Geology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.6.	Landforms: Geologic processes sculpt the earth into landforms characterized by differences in topography.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.6.	How do earth's interacting systems produce a variety of landforms?

LEARNING EXPECTATION	CLE 3205.6.	Course Level Expectations
INDICATOR	CLE 3205.6.1.	Investigate the hydrosphere and how changes in the hydrosphere affect various landforms. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	CLE 3205.6.2.	Associate the surface processes responsible for various landforms. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
STRAND / STANDARD / COURSE	TN.3205.	Geology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3205.6.	Landforms: Geologic processes sculpt the earth into landforms characterized by differences in topography.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3205.6.	How do earth's interacting systems produce a variety of landforms?
LEARNING EXPECTATION	3205.6.	Checks for Understanding
INDICATOR	3205.6.1.	Recognize that the earth's landforms change over time. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	3205.6.3.	Compare the impact of water, wind, ice, and living things as agents of geologic change. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	3205.6.4.	Describe landforms associated with deserts, glaciers, shorelines, and rivers. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3205.6.6.	Illustrate stream discharge using the Tennessee River or a local stream system. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3205.6.7.	Describe the fluvial processes of erosion and deposition <u>Virtual Field Trips</u> Galapagos Islands - Espagnol

		National Parks - West - Alaska & Hawaii National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1
INDICATOR	3205.6.8.	Describe the characteristics of a river in terms of its velocity, channel shape, depth, and discharge. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3205.6.9.	Identify meanders, point bars, cut banks, and cutoffs on a map. <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 The Amazon Rainforest - Part 1 - Older Grades
INDICATOR	3205.6.10.	Explain the processes of grain suspension, saltation, and settling to produce sedimentary deposits. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks of the Western Region - Part 1
INDICATOR	3205.6.11.	Describe a floodplain and demonstrate how stream channels and natural levees function during flood conditions. <u>Virtual Field Trips</u> National Parks of the Western Region - Part 1
INDICATOR	3205.6.12.	Describe delta formation. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks of the Western Region - Part 1
STRAND / STANDARD / COURSE	TN.3251.	Human Anatomy and Physiology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3251.Inq.	Inquiry: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3251.Inq.	What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
LEARNING EXPECTATION	CLE 3251.Inq.	Course Level Expectations
INDICATOR	CLE 3251.Inq.1.	Recognize that science is a progressive endeavor that reevaluates and extends what is already accepted. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3251.	Human Anatomy and Physiology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3251.Inq.	Inquiry: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3251.Inq.	What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
LEARNING EXPECTATION	3251.Inq.	Checks for Understanding
INDICATOR	3251.Inq.1.	Trace the historical development of a scientific principle or theory, such as the cell theory, evolution, or DNA structure.

		<u>Virtual Field Trips</u> Galapagos Islands - Espagnol
STRAND / STANDARD / COURSE	TN.3251.	Human Anatomy and Physiology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3251.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3251.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3251.T/E.	Course Level Expectations
INDICATOR	CLE 3251.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3251.	Human Anatomy and Physiology
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3251.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3251.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3251.T/E.	Checks for Understanding
INDICATOR	3251.T/E.4.	Explore how the unintended consequences of new technologies can impact human and non-human communities. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3251.T/E.5.	Evaluate the overall benefit to cost ratio of a new technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3202.	Physical Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3202.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3202.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3202.T/E.	Course Level Expectations
INDICATOR	CLE 3202.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3202.	Physical Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3202.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3202.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3202.T/E.	Checks for Understanding
INDICATOR	3202.T/E.3.	Explore how the unintended consequences of new technologies can impact human and non-human communities. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades

INDICATOR	3202.T/E.4.	Present research on current engineering technologies that contribute to improvements in our daily lives. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3202.	Physical Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3202.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3202.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	SPI 3202.T/E.	State Performance Indicators
INDICATOR	SPI 3202.T/E.3.	Evaluate the overall benefit to cost ratio of a new technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3202.	Physical Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3202.Math.	Mathematics: Physical science applies mathematics to investigate questions, solve problems, and communicate findings.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3202.Math.	What mathematical skills and understandings are needed to successfully investigate physical science?
LEARNING EXPECTATION	CLE 3202.Math.	Course Level Expectations
INDICATOR	CLE 3202.Math.2.	Utilize appropriate mathematical equations and processes to solve basic physics problems. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3202.	Physical Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3202.Math.	Mathematics: Physical science applies mathematics to investigate questions, solve problems, and communicate findings.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3202.Math.	What mathematical skills and understandings are needed to successfully investigate physical science?
LEARNING EXPECTATION	3202.Math.	Checks for Understanding
INDICATOR	3202.Math.6.	Model real-world phenomena using functions and graphs. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3202.	Physical Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3202.Math.	Mathematics: Physical science applies mathematics to investigate questions, solve problems, and communicate findings.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3202.Math.	What mathematical skills and understandings are needed to successfully investigate physical science?
LEARNING EXPECTATION	SPI 3202.Math.	State Performance Indicators
INDICATOR	SPI 3202.Math.6.	Demonstrate an understanding of rates and other derived and indirect measurements (e.g., velocity, miles per hour, revolutions per minute, cost per unit). <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3202.	Physical Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3202.1.	Matter: The composition and structure of matter is known, and it behaves according to principles that are generally understood.

GUIDING QUESTION / LEARNING EXPECTATION	GQ.3202.1.	How does the structure of matter influence its physical and chemical behavior?
LEARNING EXPECTATION	SPI 3202.1.	State Performance Indicators
INDICATOR	SPI 3202.1.1.	Distinguish among states of matter in terms of energy, volume, shape, particle arrangement, and phase changes. <u>Virtual Field Trips</u> National Parks West - Nevada, California The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3202.	Physical Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3202.3.	Motion: Objects move in ways that can be observed, described, predicted, and measured.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3202.3.	What causes objects to move differently under different circumstances?
LEARNING EXPECTATION	CLE 3202.3.	Course Level Expectations
INDICATOR	CLE 3202.3.1.	Investigate the relationships among speed, position, time, velocity, and acceleration. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3202.	Physical Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3202.3.	Motion: Objects move in ways that can be observed, described, predicted, and measured.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3202.3.	What causes objects to move differently under different circumstances?
LEARNING EXPECTATION	3202.3.	Checks for Understanding
INDICATOR	3202.3.1.	Demonstrate the relationship between speed and velocity. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
INDICATOR	3202.3.7.	Solve problems related to velocity, acceleration, force, work, and power. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3202.	Physical Science
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3202.3.	Motion: Objects move in ways that can be observed, described, predicted, and measured.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3202.3.	What causes objects to move differently under different circumstances?
LEARNING EXPECTATION	SPI 3202.3.	State Performance Indicators
INDICATOR	SPI 3202.3.5.	Solve application problems related to velocity, acceleration, force, work, and power using appropriate units of measurement ($v=d/t$, $F=ma$, $W=Fd$, and $P=W/t$). <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3231.	Physics
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3231.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3231.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3231.T/E.	Course Level Expectations

INDICATOR	CLE.3231.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3231.	Physics
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3231.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3231.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3231.T/E.	Checks for Understanding
INDICATOR	3231.T/E.4.	Explore how the unintended consequences of new technologies can impact human and non-human communities. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3231.T/E.5.	Evaluate the overall benefit to cost ratio of a new technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3231.T/E.6.	Present research on current engineering technologies that contribute to improvements in our daily lives. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3231.	Physics
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3231.Math.	Mathematics: Physics applies mathematics to investigate questions, solve problems, and communicate findings.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3231.Math.	What mathematical skills and understandings are needed to successfully investigate physics?
LEARNING EXPECTATION	CLE.3231.Math.	Course Level Expectations
INDICATOR	CLE.3231.Math.5.	Utilize calculus to understand physics principles. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3231.	Physics
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3231.Math.	Mathematics: Physics applies mathematics to investigate questions, solve problems, and communicate findings.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3231.Math.	What mathematical skills and understandings are needed to successfully investigate physics?
LEARNING EXPECTATION	3231.Math.	Checks for Understanding
INDICATOR	3231.Math.13.	Find the derivative (velocity function) of a distance (displacement) function. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3231.	Physics
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3231.1.	Mechanics: Laws and properties of mechanics are the foundations of physics.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3231.1.	How do the laws and properties of mechanics govern the basic understanding of physics.
LEARNING EXPECTATION	3231.1.	Checks for Understanding

INDICATOR	3231.1.1.	Explore displacement, velocity, and acceleration [Average Velocity; Final Velocity; Final Velocity of Falling; Average Acceleration; Displacement; Displacement of Falling]. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
INDICATOR	3231.1.2.	Analyze vector diagrams and solve composition and resolution problems for force and momentum. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
INDICATOR	3231.1.7.	Apply mathematics to solve motion problems. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
INDICATOR	3231.1.10.	Utilize trigonometry and vector analysis to solve force and momentum problems [Sine, Cosine, Tangent Functions, Law of Sine, and Law of Cosine]. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
INDICATOR	3231.1.11.	Apply elementary calculus to solve motion problems [Velocity = derivative of and acceleration = derivative of velocity]. <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii
STRAND / STANDARD / COURSE	TN.3295.	Scientific Research
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3295.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3295.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	CLE 3295.T/E.	Course Level Expectations
INDICATOR	CLE 3295.T/E.1.	Explore the impact of technology on social, political, and economic systems. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	CLE 3295.T/E.3.	Explain the relationship between the properties of a material and the use of the material in the application of a technology. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3295.	Scientific Research
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3295.T/E.	Technology and Engineering: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3295.T/E.	How do science concepts, engineering skills, and applications of technology improve the quality of life?
LEARNING EXPECTATION	3295.T/E.	Checks for Understanding
INDICATOR	3295.T/E.4.	Explore how the unintended consequences of new technologies can impact human and non-human communities. <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
INDICATOR	3295.T/E.5.	Evaluate the overall benefit to cost ratio of a new technology.

		<u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.3295.	Scientific Research
CONCEPTUAL STRAND / GUIDING QUESTION	CS.3295.2.	Thinking Critically: Critical thinking skills are essential for identifying and solving scientific problems.
GUIDING QUESTION / LEARNING EXPECTATION	GQ.3295.2.	What critical thinking skills are needed to answer researchable questions?
LEARNING EXPECTATION	CLE 3295.2.	Course Level Expectations
INDICATOR	CLE 3295.2.1.	Analyze and study classic scientific problems. <u>Virtual Field Trips</u> Galapagos Islands - Espagnol National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1

**Tennessee Academic Standards
Social Studies**

Grade: 9 - Adopted: 2013

STRAND / STANDARD / COURSE	TN.AH.	Ancient History
CONCEPTUAL STRAND / GUIDING QUESTION		Human Origins and Early Civilizations, Prehistory to 1000 BC/BCE: The student will demonstrate knowledge of early development of humankind from the Paleolithic Era to the agricultural revolution. The student will demonstrate knowledge of ancient river valley civilizations, including those of Mesopotamia, Egypt, the Indus River Valley, and China, and the civilizations of the Ancient Israelites, Phoenicians, and Nubians.
GUIDING QUESTION / LEARNING EXPECTATION	AH.11.	Locate these civilizations in time and place. (G) <u>Virtual Field Trips</u> Jerusalem - Then and Now (Older Grades)
GUIDING QUESTION / LEARNING EXPECTATION	AH.12.	Describe the development of social, political, and economic patterns, including slavery. (C, E, P) <u>Virtual Field Trips</u> Jerusalem - Then and Now (Older Grades)
GUIDING QUESTION / LEARNING EXPECTATION	AH.13.	Explain the development of religious traditions. (C) <u>Virtual Field Trips</u> Jerusalem - Then and Now (Older Grades)
GUIDING QUESTION / LEARNING EXPECTATION	AH.14.	Describe the origins, beliefs, traditions, customs, and spread of Judaism from circa 1000 B.C./B.C.E. to 135 A.D./C.E. (C) <u>Virtual Field Trips</u> Jerusalem - Then and Now (Older Grades)
GUIDING QUESTION / LEARNING EXPECTATION	AH.15.	Cite the religious, social, and legal contributions of Judaism. (C, G) <u>Virtual Field Trips</u> Jerusalem - Then and Now (Older Grades)
STRAND / STANDARD / COURSE	TN.CI.	Contemporary Issues
CONCEPTUAL STRAND / GUIDING QUESTION		The Impact of History, Geography, Economics, and Politics on Contemporary Events: The student will analyze the relationship between history, geography, and politics and contemporary events and issues.

GUIDING QUESTION / LEARNING EXPECTATION	CI.16.	Identify and explain the connection between geography and issues of culture, economics, and politics. (C, E, G, H, P) <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
GUIDING QUESTION / LEARNING EXPECTATION	CI.19.	Identify popular perception of government revenues and expenditures. (E, P) <u>Virtual Field Trips</u> Barcelona - English Barcelona - Espagnol
STRAND / STANDARD / COURSE	TN.E.	Economics
CONCEPTUAL STRAND / GUIDING QUESTION		Money and the Role of Financial Institutions: Students will understand the role of money and financial institutions in a market economy.
GUIDING QUESTION / LEARNING EXPECTATION	E.49.	Explain the basic functions of money including its role as a medium of exchange, store of value, unit of account. (E) <u>Virtual Field Trips</u> Barcelona - English Barcelona - Espagnol
STRAND / STANDARD / COURSE	TN.S.	Sociology
CONCEPTUAL STRAND / GUIDING QUESTION		The Role of Culture for Individuals and Society: The student will analyze the nature of culture and the role it plays for the individual and society.
GUIDING QUESTION / LEARNING EXPECTATION	S.7.	Identify and apply the elements of culture. (C) <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
GUIDING QUESTION / LEARNING EXPECTATION	S.9.	Explain how the elements of culture form a whole culture. (C) <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.GC.	United States Government and Civics
CONCEPTUAL STRAND / GUIDING QUESTION		Principles of United States Government: Students explain the fundamental principles and moral values of the American government as expressed in the Constitution and other essential documents of American democracy.
GUIDING QUESTION / LEARNING EXPECTATION	GC.5.	Summarize (CC) with supporting evidence why the Founding Fathers established a constitutional system that limited the power of government. (H, P) <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
STRAND / STANDARD / COURSE	TN.GC.	United States Government and Civics
CONCEPTUAL STRAND / GUIDING QUESTION		Federal Power: Students analyze the scope and function of federal power.
GUIDING QUESTION / LEARNING EXPECTATION	GC.20.	Explain how conflicts between levels of government and branches of government are resolved (supremacy clause, checks and balances). (P)

		<u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
STRAND / STANDARD / COURSE	TN.US.	United States History and Geography: Post-Reconstruction to the Present
CONCEPTUAL STRAND / GUIDING QUESTION		Modern United States 1945-1979: Students analyze the economic boom and social transformation of post–World War II America. Students examine the origins, goals, key events, and accomplishments of Civil Rights movement in the United States, and important events and trends in the 1960s and 1970s.
GUIDING QUESTION / LEARNING EXPECTATION	US.90.	Examine the roles of civil rights advocates, including the following: (C, H, P, TN)
LEARNING EXPECTATION	US.90.1.	Martin Luther King, Jr. <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
LEARNING EXPECTATION	US.90.2.	Malcolm X <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
LEARNING EXPECTATION	US.90.3.	Thurgood Marshall <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
LEARNING EXPECTATION	US.90.4.	Rosa Parks <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
LEARNING EXPECTATION	US.90.5.	Stokely Carmichael <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
LEARNING EXPECTATION	US.90.6.	President John Kennedy <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
LEARNING EXPECTATION	US.90.7.	Robert Kennedy <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
LEARNING EXPECTATION	US.90.8.	President Lyndon Johnson <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
LEARNING EXPECTATION	US.90.9.	James Meredith <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
LEARNING EXPECTATION	US.90.10.	Jim Lawson <u>Virtual Field Trips</u> Washington, DC - Grades 6 - 12
STRAND / STANDARD / COURSE	TN.WG.	World Geography
CONCEPTUAL STRAND / GUIDING QUESTION		Physical and Ecological Processes: The student will analyze how selected physical and ecological processes shape the Earth's surface.
GUIDING QUESTION / LEARNING EXPECTATION	WG.10.	Identify regional climatic patterns and weather phenomena and their effects on people and places. (G)

		<u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades
GUIDING QUESTION / LEARNING EXPECTATION	WG.11.	Describe how humans influence the environment and are influenced by it. (C, E, G) <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.WG.	World Geography
CONCEPTUAL STRAND / GUIDING QUESTION		Regions: The student will apply the concept of a region.
GUIDING QUESTION / LEARNING EXPECTATION	WG.13.	Explain how characteristics of regions have led to regional labels. (C, E, G, H, P) <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
GUIDING QUESTION / LEARNING EXPECTATION	WG.14.	Explain how regional landscapes reflect the physical environment and the cultural characteristics of their inhabitants. (C, G) <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
GUIDING QUESTION / LEARNING EXPECTATION	WG.15.	Analyze how cultural characteristics, including the world's major languages, ethnicities, religions, and issues of gender link or divide regions. (C, G) <u>Virtual Field Trips</u> The Amazon Rainforest - Part 2 - Older Grades
GUIDING QUESTION / LEARNING EXPECTATION	WG.16.	Locate and analyze physical, economic, and cultural characteristics of world regions: Latin America and the Caribbean, Europe, United States and Canada, North Africa and Southwest Asia, Sub-Saharan Africa, Russia and Central Asia, South Asia, Southeast Asia, East Asia, Australia and the Pacific Islands, and Antarctica. (C, E, G, H, P) <u>Virtual Field Trips</u> National Parks - West - Alaska & Hawaii National Parks West - Nevada, California National Parks West - Wyoming, Utah National Parks of the Western Region - Part 1 Washington, DC - Grades 6 - 12
STRAND / STANDARD / COURSE	TN.WG.	World Geography
CONCEPTUAL STRAND / GUIDING QUESTION		Resources: The student will identify types of natural, human, and capital resources and explain their significance.
GUIDING QUESTION / LEARNING EXPECTATION	WG.21.	Evaluate perspectives and consequences regarding the use of resources. (E, G) <u>Virtual Field Trips</u> La Selva Amazonica - Pte 1 (En Espagnol) The Amazon Rainforest - Part 1 - Older Grades The Amazon Rainforest - Part 2 - Older Grades
STRAND / STANDARD / COURSE	TN.WG.	World Geography
CONCEPTUAL STRAND / GUIDING QUESTION		Urbanization: The student will analyze the patterns of urban development.
GUIDING QUESTION / LEARNING EXPECTATION	WG.29.	Apply the concepts of site and situation to major cities in each region. (G)

		<u>Virtual Field Trips</u> Barcelona - English Barcelona - Espagnol Paris - City of Light - Grades 6 - 12 Paris - La Ville Lumiere (En Francais)
GUIDING QUESTION / LEARNING EXPECTATION	WG.30.	Explain how the functions of towns and cities have changed over time. (G, H) <u>Virtual Field Trips</u> Barcelona - English Barcelona - Espagnol Paris - City of Light - Grades 6 - 12 Paris - La Ville Lumiere (En Francais)
GUIDING QUESTION / LEARNING EXPECTATION	WG.31.	Describe the unique influence of urban areas and some challenges they face. (C, E, G) <u>Virtual Field Trips</u> Barcelona - English Barcelona - Espagnol Paris - City of Light - Grades 6 - 12 Paris - La Ville Lumiere (En Francais)