7/21/08

Final List of

Learning Objectives

That will be used in EEI Units

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California's
Environmental Principles and Concepts

The environmental principles examine the interactions and interdependence of human societies and natural systems. The nature of these interactions is summarized in the environmental principles and concepts that are presented below.

Principle I
The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services. As a basis for understanding this principle:

- **Concept a.** Students need to know that the goods produced by natural systems are essential to human life and to the functioning of our economies and cultures.
- **Concept b.** Students need to know that the ecosystem services provided by natural systems are essential to human life and to the functioning of our economies and cultures.
- **Concept c.** Students need to know that the quality, quantity and reliability of the goods and ecosystem services provided by natural systems are directly affected by the health of those systems.

Principle II
The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies. As a basis for understanding this principle:

- **Concept a.** Students need to know that direct and indirect changes to natural systems due to the growth of human populations and their consumption rates influence the geographic extent, composition, biological diversity, and viability of natural systems.
- **Concept b.** Students need to know that methods used to extract, harvest, transport and consume natural resources influence the geographic extent, composition, biological diversity, and viability of natural systems.
- **Concept c.** Students need to know that the expansion and operation of human communities influences the geographic extent, composition, biological diversity, and viability of natural systems.
- **Concept d.** Students need to know that the legal, economic and political systems that govern the use and management of natural systems directly influence the geographic extent, composition, biological diversity, and viability of natural systems.

Principle III
Natural systems proceed through cycles that humans depend upon, benefit from and can alter. As a basis for understanding this principle:

- **Concept a.** Students need to know that natural systems proceed through cycles and processes that are required for their functioning.
- **Concept b.** Students need to know that human practices depend upon and benefit from the cycles and processes that operate within natural systems.
- **Concept c.** Students need to know that human practices can alter the cycles and processes that operate within natural systems.

Principle IV
The exchange of matter between natural systems and human societies affects the long-term functioning of both. As a basis for understanding this principle:

- **Concept a.** Students need to know that the effects of human activities on natural systems are directly related to the quantities of resources consumed and to the quantity and characteristics of the resulting byproducts.
- **Concept b.** Students need to know that the byproducts of human activity are not readily prevented from entering natural systems and may be beneficial, neutral, or detrimental in their effect.
- **Concept c.** Students need to know that the capacity of natural systems to adjust to human-caused alterations depends on the nature of the system as well as the scope, scale, and duration of the activity and the nature of its byproducts.

Principle V
Decisions affecting resources and natural systems are based on a wide range of considerations and decision-making processes. As a basis for understanding this principle:

- **Concept a**. Students need to know the spectrum of what is considered in making decisions about resources and natural systems and how those factors influence decisions.
- **Concept b.** Students need to know the process of making decisions about resources and natural systems, and how the assessment of social, economic, political, and environmental factors has changed over time.

Kindergarten — California Science and History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Science

Academic Content Standards	
Earth Sciences 3. Earth is composed of land, air, and water. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
a. Students know characteristics of mountains, rivers, oceans, valleys, deserts, and local landforms.	• List different habitats (ecosystems) that are found in mountains, rivers, oceans, valleys, deserts, and in their local area. • Name some of the plants and animals that live in their local area.
c. Students know how to identify resources from Earth that are used in everyday life and understand that many resources can be conserved.	• Identify resources (goods and ecosystem services) that people use in everyday life (e.g., food, air, water, clothing). • Describe the origins of everyday resources (e.g., food comes from plants and animals, air comes from the atmosphere, water from lakes and rivers). • Recognize that all of the everyday resources they use come from natural systems. • Provide examples of how these resources are gathered, harvested or extracted from natural systems. • List ways these resources can be conserved.

History/Social Science

Academic Content Standards	
4. Students compare and contrast the locations of people, places, and environments and describe their characteristics.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
5. Demonstrate familiarity with the school's layout, environs, and the jobs people do there. Combined K.4.5. and K.6.3.	• Recognize that the environment surrounding the school today is most likely different from what it was when the school was built. • List jobs at the school related to the use and maintenance of any natural systems at the school (e.g., school gardens, green spaces).

6. Students understand that history relates to events, people, and places of other times.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
3. Understand how people lived in earlier times and how their lives would be different today (e.g., getting water from a well, growing food, making clothing, having fun, forming organizations, living by rules and laws). Combined K.4.5. and K.6.3.	• Recognize that people in earlier times used many of the same goods and ecosystem services as we do today (e.g., timber, clean water, food). • Identify that in earlier times people more directly consumed the goods and ecosystem services from natural systems rather than obtaining them from secondary sources (e.g., food markets, lumber yards). • Explain that the quantity of goods consumed by people increases as human communities grow (e.g., water and energy consumption).

First Grade — California Science and History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Science

Academic Content Standards	
Life Sciences 2. Plants and animals meet their needs in different ways. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
a. Students know different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.	• Recognize that natural systems (environments) provide the resources (goods and ecosystem services) for survival for plants and animals. • Provide examples of the external features of plants and animals that help them live in a particular environment and obtain the resources they need to survive there. • Describe human activities that can influence the functioning of natural systems and the availability of resources for plants and animals. • Explain that if there are significant changes to natural systems (environments) plants and animals may not be able to survive in those areas.
c. Students know animals eat plants or other animals for food and may also use plants or even other animals for shelter and nesting.	• Identify the different type of food that animals eat and categorize the sources of those foods as plants or animals. • Recognize that natural systems produce all the food that animals eat. • List examples of the materials that animals use to make shelter and nests and categorize the sources of those materials as plants or animals. • Recognize that natural systems produce all the materials animals use to make shelter and nests. • Provide examples of things that humans do that can influence the availability of materials animals (including humans) use for food, shelter, and nesting. • Explain that humans also rely on natural systems for their supplies of materials for food and shelter.
d. Students know how to infer what animals eat from the shapes of their teeth (e.g., sharp teeth: eats meat; flat teeth: eats plants).	• Provide examples of the shapes of specialized animals' teeth or beaks and the foods they eat (e.g., sharp teeth: eats meat; flat teeth: eats plants). • Recognize that if the food that an animal needs is not available, it may not be able to survive because many animals cannot change their diets (e.g., the main diet of Pandas is bamboo). • Provide examples of human activities that could change the supplies of food for animals and make it difficult for them to survive.

First Grade — California Science and History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

History/Social Science

Academic Content Standards	
2. Students compare and contrast the absolute and relative locations of places and people and describe the physical and/or human characteristics of places.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
4. Describe how location, weather, and physical environment affect the way people live, including the effects on their food, clothing, shelter, transportation, and recreation.	• Describe how location, weather, and the physical environment interact to create specific conditions that determine what humans use for food, clothing, shelter, transportation, and recreation. • Recognize that human communities are generally located in close proximity to the natural systems (e.g., forests, farmland, bodies of water) that provide the goods and ecosystem services upon which humans depend. • Explain that human activities and naturally-occurring events can change natural systems. • Provide examples of how changes to natural systems can affect how people live.

4. Students compare and contrast everyday life in different times and places around the world and recognize that some aspects of people, places, and things change over time while others stay the same.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
2. Study transportation methods of earlier days.	• Recognize that transportation methods in the past relied on the goods and ecosystem services provided by natural systems, just as we do today. • Identify, using photographs and other primary sources, that transportation methods have changed over time • Recognize that the distances people traveled in the past were often shorter than distances traveled routinely today with the growth and expansion of human communities and development of transportation systems. • Compare transportation systems used in the past with those used today. • Recognize the differences between the types and quantities of energy used by transportation systems in the past with those used today.

Second Grade — California Science and History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Science

Academic Content Standards	
Life Sciences 2. Plants and animals have predictable life cycles. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
a. Students know that organisms reproduce offspring of their own kind and that the offspring resemble their parents and one another. Combined with 2.2.b.	• Recognize that reproduction is essential to the survival of a species. • Identify reproduction as a process that maintains plant and animal populations in natural systems. • Describe the reproduction of plants and animals as a process that provides humans with food and other goods and ecosystem services. • Explain why plant and animal reproduction is important in providing resources necessary for human survival.
b. Students know the sequential stages of life cycles are different for different animals, such as butterflies, frogs, and mice. Combined with 2.2a.	• Identify reproductive cycles for different animals such as butterflies, frogs, and mice. • Explain that, in order to reproduce, different animals such as butterflies, frogs, and mice have different needs met by the natural systems where they live (e.g., monarch butterflies need milkweed).
c. Students know many characteristics of an organism are inherited from the parents. Some characteristics are caused or influenced by the environment. Combined with 2.2.c.	• Identify some of the characteristics that organisms inherit from their parents. • Recognize that some of these characteristics are essential to the survival of the organisms. • Provide examples of inherited characteristics that are caused or influenced by the environment.
d. Students know there is variation among individuals of one kind within a population. Combined with 2.2.d.	• Recognize that there is variation among individuals within a population. • Provide examples of variations among individuals within a population that are caused or influenced by the environment. • Provide examples of the effects of human-caused changes to the environment on the characteristics or variations among individuals within a population.
e. Students know light, gravity, touch, or environmental stress can affect the germination, growth, and development of plants. Combined with 2.2.f.	• Recognize that changes to conditions in the environment (e.g., light, water, environmental stress) may affect the germination, growth and development of plants. • Explain how the environment may affect a plant's ability to reproduce. • Predict what happens to a plant when a specific change in the environment occurs (e.g., there is suddenly no water).
f. Students know flowers and fruits are associated with reproduction in plants. Combined with 2.2.e.	• Identify flowers and fruits as part of the reproductive process in some plants. • Explain that, in order to reproduce, plants have different needs (e.g., soil, nutrients, water) met by the natural systems in which they live. • Identify plant reproduction as an important function for humans because it provides food sources, building materials and other resource materials for use by humans and other animals. • Provide examples of environmental stresses to plants that can result from human activities.

Earth Sciences 3. Earth is made of materials that have distinct properties and provide resources for human activities. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
a. Students know how to compare the physical properties of different kinds of rocks and know that rock is composed of different combinations of minerals. Combined with 2.3.b.	• Identify rocks and minerals as important components of natural systems. • Provide examples of rocks and minerals that are used directly by humans and human communities. • Provide examples of rocks and minerals that are used by humans and human communities to manufacture other products.
b. Students know smaller rocks come from the breakage and weathering of larger rocks. Combined with 2.3.a.	• Recognize examples of the importance of small rocks and sand to natural systems (e.g., the spawning of salmon in streams).

Second Grade — California Science and History/Social Science Learning Objectives In the Context of California's Environmental Principles and Concepts

History/Social Science

Academic Content Standards	
2. Students demonstrate map skills by describing the absolute and relative locations of people, places, and environments.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
4. Compare and contrast basic land use in urban, suburban, and rural environments in California.	• List different types of land use in urban, suburban, and rural environments in California. • Recognize that land use patterns in California have changed over time. • Compare how different types of land use affect natural systems in urban, suburban, and rural environments. • Recognize that as urban and suburban areas expand, natural systems are converted due to human activity. • Explain that more people have moved into urban and suburban settings as populations grew and economies have changed.

4. Students understand basic economic concepts and their individual roles in the economy and demonstrate basic economic reasoning skills.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
1. Describe food production and consumption long ago and today, including the roles of farmers, processors, distributors, weather, and land and water resources.	• Identify the role of land and water resources in food production. • Provide examples of how natural processes such as climate and weather affect the quality, quantity, and reliability of food resources. • List jobs associated with the production and consumption of food. • Recognize that more food must be produced to support growing human populations. • Provide examples of farming or ranching practices that have changed over the past century. • Describe some of the effects of food production and consumption on natural systems.
2. Understand the role and interdependence of buyers (consumers) and sellers (producers) of goods and services. Combine with 2.4.3.	• Understand the role and interdependence of buyers (consumers) and sellers (producers) of goods and services.
3. Understand how limits on resources affect production and consumption (what to produce and what to consume). Combine with 2.4.2.	• Recognize that food production depends on the availability of natural resources (goods and ecosystems services) from natural systems (e.g., water, air, light, soil nutrients). • Explain that natural systems contain limited supplies of natural resources (e.g., water, soil nutrients). • Identify that limits on natural resources can influence food production. • Provide examples of how decisions about what to produce and what to consume can be affected by the quality, quantity and reliability of the resources provided by natural systems.

Third Grade — California Science and History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Science

Academic Content Standards	
Life Sciences 3. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
a. Students know plants and animals have structures that serve different functions in growth, survival, and reproduction.	• Identify that plants and animals have different structures that allow them to grow, survive, and reproduce by using/consuming the goods and ecosystem services provided by natural systems. • Recognize that growth, survival, and reproduction are necessary for the survival of plants and animals, as well as the survival of humans and human communities. • Provide examples of how the functioning of structures plants and animals (including humans) have for growth, survival, and reproduction depends on the health of those plants and animals and the health of natural systems. • Explain that the growth, survival, and reproduction of plants and animals processes can be influenced by human activities.
c. Students know living things cause changes in the environment in which they live: some of these changes are detrimental to the organism or other organisms, and some are beneficial. Combine 3.3.c. and 3.3.d.	• Identify how living things (including humans) can cause changes in the environments in which they live. • Provide examples of changes to the environment caused by living things that are beneficial, detrimental or neutral in their effects on other organisms. • Explain how changes to the environment, brought about by an organism, may harm that organism or other organisms. • Provide examples of large-scale changes to ecosystems that result from human activities and natural events.
d. Students know when the environment changes, some plants and animals survive and reproduce; others die or move to new locations. Combine 3.3.c. and 3.3.d.	• Recognize that when the environment changes, some plants and animals will die or move to new locations because the natural system can no longer meet their needs. • Explain that not all organisms respond to environmental changes in the same way. • Provide examples of animals or plants that have not survived as the result of a change to their environment. • Describe habitat restoration as a process that can sometimes be used to make it possible for plants and animals to survive and reproduce in areas where they once could not.

Third Grade — California Science and History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

History/Social Science

Academic Content Standards	
1. Students describe the physical and human geography and use maps, tables, graphs, photographs, and charts to organize information about people, places, and environments in a spatial context.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
1. Identify geographical features in their local region (e.g., deserts, mountains, valleys, hills, coastal areas, oceans, lakes). Combine 3.1.1. and 3.1.2.	• Locate the deserts, mountains, valleys, hills, coastal areas, oceans, and lakes in their local region on a map. • Identify the ecosystems (natural systems) that are found in the deserts, mountains, valleys, hills, coastal areas, oceans, and lakes in their local region. • List the resources (goods and ecosystem services) that are provided by the ecosystems (natural systems) in their local region.
2. Trace the ways in which people have used the resources of the local region and modified the physical environment (e.g., a dam constructed upstream changed a river or coastline). Combine 3.1.1. and 3.1.2.	• Recognize the ways that people use the resources (goods and ecosystem services) that are provided by the ecosystems (natural systems) in their local region. • Identify the ways humans have changed the natural systems (physical and living environment) in their local region to extract, harvest, transport and consume natural resources (goods and ecosystem services). • Provide examples of how the extraction, harvesting, transportation and consumption of natural resources have influenced the natural systems in the local region. • Explain that some changes to the natural systems are detrimental while others may be beneficial or neutral in their effects.

2. Students describe the American Indian nations in their local region long ago and in the recent past.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
2. Discuss the ways in which physical geography, including climate, influenced how the local Indian nations adapted to their natural environment (e.g., how they obtained food, clothing, tools).	• Provide examples of goods and ecosystem services that were used by specific American Indian nations. • Explain how local Indian nations adapted to their natural environment so that they could extract, harvest, transport and consume natural resources (goods and ecosystem services). • Describe how physical geography, including climate, affected the natural resources (goods and ecosystem services) upon which American Indian nations depended. • Explain how the American Indian nations affected the natural systems where they lived.
5. Students demonstrate basic economic reasoning skills and an understanding of the economy of the local region.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
1. Describe the ways in which local producers have used and are using natural resources, human resources, and capital resources to produce goods and services in the past and the present. Combine 3.5.2. and 3.5.3.	• Provide examples of the natural resources (goods and ecosystem services) used by local producers in the past and the present. • Compare the costs and benefits of methods used by local producers to extract, harvest, transport and consume natural resources in the past and present.
2. Understand that some goods are made locally, some elsewhere in the United States, and some abroad. Combine 3.5.1. and 3.5.3.	• Identify the availability of natural resources (goods and ecosystem services) as the reason that some goods are made locally, some elsewhere in the United States, and some abroad.
3. Understand that individual economic choices involve trade-offs and the evaluation of benefits and costs. Combine 3.5.1. and 3.5.2.	• Recognize the wide spectrum of considerations (e.g., economic, legal, environmental, public health, and socio-cultural) that can be involved in making economic choices. • Describe the importance of considering the full spectrum of factors in evaluating the benefits, costs and trade-offs of individual economic choices.

Fourth Grade — California Science and History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Science

Academic Content Standards	
Life Sciences 2. All organisms need energy and matter to live and grow. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
a. Students know plants are the primary source of matter and energy entering most food chains.	• Recognize that living things have needs that must be met for survival (including energy). • Recognize that plants are the primary source of energy for living things in an ecosystem. • Explain how living things meet their needs and survive by using resources (e.g., matter and energy) from their environment. • Identify that humans are living things and therefore have needs essential to their survival. • Identify that the needs of humans are met by using resources (goods and ecosystem services) from natural systems (e.g., matter and energy). • Recognize that everything humans need was originally derived from a natural system including the matter and energy that plants produce.
b. Students know producers and consumers (herbivores, carnivores, omnivores, and decomposers) are related in food chains and food webs and may compete with each other for resources in an ecosystem.	• Recognize that plants and animals, including humans, can be classified by the sources of energy and matter (food) they consume. • Classify organisms from a terrestrial, freshwater, coastal or marine ecosystem as producers and consumers and explain their roles in that system. • Define ecosystems as interacting assemblages of organisms, non-living components that support those organisms and the interactions among them. • Recognize that some resources within an ecosystem, including those upon which humans depend, are readily available and others are limited in supply. • Describe how organisms compete for limited resources. • Explain potential consequences when a component of an ecosystem is changed or eliminated (e.g., when components of a food chain or food web are affected by competition for resources or other changes, whether natural or human-caused). • Describe factors that can adversely affect the health of an ecosystem (e.g., loss of organisms, disruption of food webs).
c. Students know decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals.	• Give examples of organisms that are decomposers. • Explain the role of decomposers in an ecosystem. • Recognize that the cycles and processes involving recycling of matter and transfer of energy among organisms are essential to the functioning of natural systems (ecosystem). • Provide examples of human practices that directly depend on the cycles and processes involving decomposers in terrestrial, freshwater, coastal and marine ecosystems (e.g., their role in food production and waste management). • Describe the dependence of human practices on the cycles and processes that occur in terrestrial, freshwater, coastal and marine ecosystems (e.g., the role of decomposers in: food production through soil formation and fertility; waste management through the decay of waste products).

3. Living organisms depend on one another and on their environment for survival. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**

d. Students know that most microorganisms do not cause disease and that many are beneficial.	• Give examples of microorganisms. • Describe the roles of microorganisms in natural systems including the human body. • Recognize that microorganisms are involved in many natural system processes that are used by humans and human communities and that such processes are considered "ecosystem services" (e.g., processes involving microorganisms such as fermentation, decomposition, etc.). • Describe the role of ecosystem services involving microorganisms in human communities and societies (e.g., food production, waste treatment, production of pharmaceuticals). • Recognize that some microorganisms can cause changes to living things that may be harmful.

History/Social Science

Academic Content Standards	
1. Students demonstrate an understanding of the physical and human geographic features that define places and regions in California**.**	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
3. Identify the state capital and describe the various regions of California, including how their characteristics and physical environments (e.g., water, landforms, vegetation, climate) affect human activity. Combine 4.1.3. and 4.1.5.	• Describe the differences among the various regions of California, providing examples of landforms, bodies of water, vegetation and climate in each. • Give examples of the variety of ecosystems in California. • Provide examples of how water, landforms, vegetation and climate affect human activity in California. • Identify that the needs of humans in California are met by using goods and ecosystem services from natural systems.
5. Use maps, charts, and pictures to describe how communities in California vary in land use, vegetation, wildlife, climate, population density, architecture, services, and transportation. Combine 4.1.3. and 4.1.5	• Use maps, charts, and pictures to identify and locate the different types of land use, vegetation, wildlife, and climatic zones in California. • Use charts and pictures to provide examples and describe the diverse architectural styles and transportation systems in various California communities and show how they are influenced by local natural systems. • Use maps, charts, and pictures to compare human population density in different areas of California (e.g., urban, suburban, rural, agricultural, undeveloped). • Use maps, charts, and pictures to compare areas representing different population density with areas of varying types of land use, vegetation, wildlife and climate.

2. Students describe the social, political, cultural, and economic life and interactions among people of California from the pre-Columbian societies to the Spanish mission and Mexican rancho periods.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
1. Discuss the major nations of California Indians, including their geographic distribution, economic activities, legends, and religious beliefs; and describe how they depended on, adapted to, and modified the physical environment by cultivation of land and use of sea resources.	• Identify the goods and ecosystem services that were essential to the lives, economies, and cultures of each of the major nations of California Indians. • Describe how the regions where different California Indian nations lived supplied them with different natural resources, goods and ecosystem services and resulted in different land use patterns and economic activities in each region. • Identify that California Indian nations developed different methods to extract, harvest, transport and consume natural resources. • Provide examples of how the extraction, harvesting, transporting and consuming of goods and use of ecosystem services by California Indians influenced the geographic extent, composition, biological diversity, and viability of the natural systems they inhabited. • Explain how the California Indian nations modified their physical environment by cultivation of land and use of sea resources.

6. Discuss the role of the Franciscans in changing the economy of California from a hunter-gatherer economy to an agricultural economy.	• Identify the differences between hunter-gatherer and agricultural economies. • Describe how the daily lives of native and nonnative people changed as the result of shifting from a hunter-gatherer economy to an agricultural economy (e.g., human communities became rooted to one location and had greater influence on local natural systems). • Discuss the role of the Franciscans in changing the economy of California from a hunter-gatherer economy to an agricultural economy. • Provide examples of how changing the economy of California from a hunter-gatherer economy to an agricultural economy influenced the natural systems in different regions of California. • Describe how these changes to California's natural systems in turn affected the daily lives of native and nonnative people.

3. Students explain the economic, social, and political life in California from the establishment of the Bear Flag Republic through the Mexican-American War, the Gold Rush, and the granting of statehood.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
3. Analyze the effects of the Gold Rush on settlements, daily life, politics, and the physical environment (e.g., using biographies of John Sutter, Mariano Guadalupe Vallejo, Louise Clapp).	• Identify how the methods used to extract, harvest and transport gold in California influenced the natural systems where the gold was being sought. • Using the biographies of John Sutter, Mariano Guadalupe Vallejo, and Louise Clapp, describe how the quest for gold influenced the growth, development and operation of new communities in various parts of California. • Describe how the changing resource production and consumption patterns in California during the Gold Rush resulted in the need for new laws, policies, and incentives regarding resource use and management. • Identify byproducts of the Gold Rush communities, and the mining and extraction practices that influenced the health of the natural systems in the surrounding areas (e.g., the use of mercury in the refining process). • Examine how political and economic decisions made during the Gold Rush influenced the social, economic, political, and legal systems in local communities and in California as a whole.

Fifth Grade — California History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Science

Academic Content Standards	
Earth Sciences 3. Water on Earth moves between the oceans and land through the processes of evaporation and condensation. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
a. Students know most of Earth's water is present as salt water in the oceans, which cover most of Earth's surface.	• Identify that humans are living things and clean fresh water is essential to their survival. • Recognize that because most of Earth's water is salt water located in the oceans, the vast majority of water is not available for human consumption. • Describe freshwater, coastal and marine ecosystems and compare the chemical characteristics of the water in these systems. • Provide examples of the goods that are produced by freshwater, coastal and marine ecosystems (e.g., clean fresh water, oxygen, food, energy resources). • Explain how humans and human communities can influence the quantity, distribution and chemical characteristics of the water in freshwater, coastal and marine ecosystems (e.g., global climate change, water management practices).
b. Students know when liquid water evaporates, it turns into water vapor in the air and can reappear as a liquid when cooled or as a solid if cooled below the freezing point of water.	• Describe the roles of evaporation, liquefaction and freezing in the water cycle. • Describe the role of the water cycle, evaporation, liquefaction and freezing in the functioning of natural systems. • Provide examples of the roles these cycles and processes play in human life and human communities.
c. Students know water vapor in the air moves from one place to another and can form fog or clouds, which are tiny droplets of water or ice, and can fall to Earth as rain, hail, sleet, or snow.	• Identify the role of precipitation (rain, hail, sleet, or snow) in terrestrial, freshwater, coastal and marine ecosystems). • Provide examples of how humans and human communities directly and indirectly depend on precipitation (rain, hail, sleet, or snow) and the water cycle (e.g., agricultural systems, water delivery systems). • Provide examples of how human activities can influence the quantity, distribution and chemical characteristics of precipitation.
d. Students know that the amount of fresh water located in rivers, lakes, underground sources, and glaciers is limited and that its availability can be extended by recycling and decreasing the use of water.	• Identify sources of fresh water and describe the reservoirs of Earth's water. • Recognize that water moves from one reservoir to another over time. • Describe the ways in which humans, human communities and their practices use water. • Recognize that the supply of fresh water is limited at any given time and discuss how some resources within an ecosystem are finite in supply while others are less limited. • Describe the methods by which wastewater can be treated and cycled back into the environment. • Provide examples of how water use can be decreased by humans and human communities. • Explain potential consequences when the quantity, distribution or chemical characteristics of water are changed (e.g., contamination of an aquifer can compromise the use of the groundwater supply by humans and other organisms). • Describe how changes to the quantity, distribution and chemical characteristics of water in natural systems can influence the functioning of terrestrial, freshwater, coastal and marine ecosystems (e.g., acid precipitation affecting the growth of trees).

History Social/Science

Academic Content Standards	
4. Students understand the political, religious, social, and economic institutions that evolved in the colonial era.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**

Fifth Grade — California History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

1. Understand the influence of location and physical setting on the founding of the original 13 colonies, and identify on a map the locations of the colonies and of the American Indian nations already inhabiting these areas.	• Identify the goods and ecosystem services provided by natural systems that were necessary for the settlement of the 13 colonies. • Provide examples of the physical settings that were important factors in making decisions to locate and develop settlements on the eastern seaboard of North America. • Explain why the physical geography and the natural resources (goods and ecosystem services) on the eastern seaboard of North America made colonization attractive and settlement possible. • Recognize how the role of the goods and ecosystem services provided by natural systems in the original 13 colonies influenced the development of their economic systems. • Identify on a map the locations of the 13 colonies and of the American Indian nations already inhabiting these areas.
8. Students trace the colonization, immigration, and settlement patterns of the American people from 1789 to the mid-1800s, with emphasis on the role of economic incentives, effects of the physical and political geography, and transportation systems.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
4. Discuss the experiences of settlers on the overland trails to the West (e.g., location of the routes; purpose of the journeys; the influence of the terrain, rivers, vegetation, and climate; life in the territories at the end of these trails).	• Identify reasons that the settlers moved to the West (e.g., population growth in the Eastern United States, the availability of untapped sources of natural resources in the West). • Recognize that the natural systems in the American territories west of the Mississippi and Missouri Rivers influenced the experiences of settlers as they traversed the overland trails to the West (e.g., the influence of the terrain, rivers, vegetation, and climate). • Describe how the cycles and processes that operate within natural systems influenced the experiences of settlers as they traversed the overland trails to the West (e.g., the choice and location of the routes, seasons to travel, and length of journey). • Provide examples of the factors that influenced the settlers' decisions to migrate and settle in particular areas (e.g., availability of natural resources, character of the region's natural systems). • Explain how life in the territories at the end of the overland trails was different from life in the regions from which these settlers had originally come.

Sixth Grade — California Science and History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Science

Academic Content Standards	
Shaping Earth's Surfaces 2. Topography is reshaped by the weathering of rock and soil and by the transportation and deposition of sediment. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
b. Students know rivers and streams are dynamic systems that erode, transport sediment, change course, and flood their banks in natural and recurring patterns.	• Identify how humans and human communities benefit from the dynamic nature of rivers and streams in ways that are essential to human life and to the functioning of our economies and cultures (e.g., deposition of fertile sediment). • Describe how humans and human communities are influenced by soil erosion, sediment transport, course changes and flooding of rivers and streams (e.g., food production, housing construction). • Provide examples of how human activities can influence the flow of rivers and streams. • Describe how changes to the flow of rivers and streams can influence the functioning of terrestrial, freshwater, coastal and marine ecosystems (e.g., spawning of salmon).

Ecology (Life Science) 5. Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
c. Students know populations of organisms can be categorized by the functions they serve in an ecosystem.	• Define a population. • Give examples of the functions (producer, consumer, and decomposer) populations of organisms serve in an ecosystem. • Explain how energy is transferred in an ecosystem and how the amount of available energy varies at the level of consumption (primary, secondary and tertiary consumers). • Identify humans as consumers within ecosystems. • Identify and describe byproducts generated by the human consumption of goods (matter) produced by natural systems (ecosystems). • Describe the effects of human practices on the transfer of matter through natural systems. • Provide examples of how the quantities of resources consumed, and the quantity and characteristics of the resulting byproducts can affect natural systems.
d. Students know different kinds of organisms may play similar ecological roles in similar biomes.	• Recognize different biomes. • Identify the characteristics of various biomes. • Provide examples of different organisms playing similar ecological roles (herbivores, carnivores, omnivores, and decomposers) in similar biomes. • Explain how human practices make use of and/or have similar effects on organisms that play similar roles in different biomes. • Describe the effects of human practices on the transfer of matter through natural systems (e.g., the effects of agriculture and forestry on organisms with similar ecological roles are comparable in similar biomes).

Resources 6. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**

a. Students know the utility of energy sources is determined by factors that are involved in converting these sources to useful forms and the consequences of the conversion process.	• Identify the various forms and uses of energy in students' communities. • Describe different methods of producing energy (including using fuel, converting solar energy to electricity, using hydro or wind power). • Recognize that when fuel is used (consumed) most of the energy released becomes heat, a byproduct that transfers to the surrounding environment. • Describe other byproducts of energy production and consumption (e.g., liquids, gases and solids that may have varied effects). • Provide examples of how the byproducts of converting energy sources into useful forms enter natural systems. • Describe how the quantities of energy resources consumed, and the quantity and characteristics of the resulting byproducts, affect natural systems. • Explain that the "usefulness" of energy sources is determined by weighing the benefits of their use against the costs of conversion and the generation and release of byproducts.
b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and know how to classify them as renewable or nonrenewable.	• Identify different energy and material resources (e.g. air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests) that are provided by natural systems. • Explain that: renewable resources are replaced over a relatively short time period (e.g., fresh water, hydroelectric power, or living resources); non-renewable resources accumulate over such a long period of time that they must be considered as fixed (e.g., minerals or fossil fuels); and, inexhaustible resources have no practical limits (e.g., solar or hydrothermal energy). • Classify energy and material resources as renewable, non-renewable, or inexhaustible. • Identify energy and material resources that are essential to human life. • Provide examples of how human practices and rates of consumption can affect the availability (quality, quantity and reliability) of energy and material resources that are essential to human life.
c. Students know the natural origin of the materials used to make common objects.	• Identify the natural origin of the materials used to make common objects. • Provide examples of the goods that are produced by natural systems that are used to make common objects used by humans. • Explain the methods used to make common objects (useable products) from natural resources. • Describe the methods used to extract, harvest and transport the materials used to make common objects from natural resources. • Provide examples of how the methods used to extract, harvest and transport natural resources, and consume them (or make useable products) affect natural systems.

History Social/Science

Academic Content Standards	
1. Students describe what is known through archaeological studies of the early physical and cultural development of humankind from the Paleolithic era to the agricultural revolution.	**Standards-based Learning Objectives in the Context of the EP&C**
1. Describe the hunter-gatherer societies, including the development of tools and the use of fire.	• Recognize how hunter-gatherer societies met their needs (i.e., they depended upon the goods and ecosystem services that they obtained from natural systems). • Identify the purpose of the development of tools and use of fire by hunter-gatherer societies (i.e., helping them extract, harvest, transport, and consume goods and use ecosystem services from the natural systems where they lived). • Explain that even though humans today may use different tools and practices, they require the same goods and ecosystem services as those of hunter-gatherer societies to assure their survival. • Describe how the expansion and operation of hunter-gatherer societies influenced the geographic extent, composition, biological diversity, and viability of natural systems (e.g., the extinction of mastodons, flightless birds, and other large animals).

2. Identify the locations of human communities that populated the major regions of the world and describe how humans adapted to a variety of environments.	• Identify the locations of early human communities that populated the major regions of the world. • Provide examples of the factors that influenced the settlement of early human communities in a variety of environments in each of the major regions of the world. • Compare the methods used by different early human communities to extract, harvest, transport and consume natural resources in the major regions of the world. • Describe how humans adapted their practices to the goods and ecosystem services, as well as to the cycles and processes that operated in the natural systems that they inhabited.

2. Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of Mesopotamia, Egypt, and Kush.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
1. Locate and describe the major river systems and discuss the physical settings that supported permanent settlement and early civilizations.	• Identify the importance of water and major river systems to human life and social systems (economic, political, legal, cultural, and religious) to the early civilizations of Mesopotamia, Egypt, and Kush. • Compare the uses of water and major river systems from early civilizations to today. • Describe the role of the major river systems and their physical settings in the choice of locations for permanent settlement in these early civilizations. • Provide examples of seasonal cycles in the major river systems that benefited humans and the permanent settlement of early civilizations. • Map the locations and describe the major river systems that were important to the early civilizations of Mesopotamia, Egypt, and Kush and discuss the physical settings of those river systems.
2. Trace the development of agricultural techniques that permitted the production of economic surplus and the emergence of cities as centers of culture and power.	• Recognize changes to and the development of agricultural techniques over time (e.g., domestication of plants and animals). • Identify the factors that influenced changes to and the development of agricultural techniques in early civilizations (i.e., as humans learned more about natural systems, resources and cycles, they applied their knowledge to the development of agricultural techniques). • Describe how the development of agricultural techniques produced more goods from the natural systems inhabited by the early civilizations. • Describe how improvements to agricultural practices increased supplies of food and other agricultural products (sometimes surpluses), which in turn resulted in the growth of human populations and the development of larger settlements and cities. • Explain that as humans settled in cities and the population grew, they needed to import agricultural products such as food from farther and farther away. • Provide examples of the direct and indirect influences of agricultural techniques on the natural systems inhabited by the early civilizations (e.g., loss of natural habitat, changes to local water distribution). • Trace the development of agricultural techniques that permitted the production of economic surplus and the emergence of cities as centers of culture and power.
6. Describe the role of Egyptian trade in the eastern Mediterranean and Nile Valley. Combine 6.2.6. and 6.2.8.	• Identify that the Nile River and Valley provided the natural resources necessary to establish the region's agricultural economy. • Explain the effect of Egypt's improved agricultural methods and practices on the civilization and its borders (i.e., they produced surplus goods [e.g., food and textiles] that allowed the civilization to grow and expand its borders). • Provide examples of the goods that played a role in Egyptian trade in the eastern Mediterranean and Nile Valley. • Provide examples of the direct and indirect influences of Egyptian trade in the eastern Mediterranean and Nile Valley on the natural systems in the region. • Describe the influence of Egyptian trade on the development of laws, policies, and incentives that were created to govern the use and management of the natural resources in the eastern Mediterranean and Nile Valley.

8. Identify the location of the Kush civilization and describe its political, commercial, and cultural relations with Egypt. Combine 6.2.6. and 6.2.8.	• Recognize that the Nile River and Valley were the basis for the natural resources used by the Kush civilization to establish an agricultural economy. • Describe the similarities and differences between the Kush and Egyptian civilizations (e.g., agricultural practices, economic, political and religious systems). • Describe the Kush's political, commercial, and cultural relations with Egypt. • Explain the reasons each Egyptian dynasty had a policy related to control of the Kush to ensure access to the goods and ecosystem services provided by the Nile River. • Locate the Kush civilization on a map.

5. Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of India.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
1. Locate and describe the major river system and discuss the physical setting that supported the rise of this civilization. Combine 6.5.1. and 6.6.1.	• Identify the importance of water and India's major river systems to human life and social systems (economic, political, legal, cultural, and religious). • Provide examples of the natural resources (goods and ecosystem services) upon which early Indian civilizations relied. • Compare the uses of water and major river systems with other early civilizations. • Describe the factors that influenced the settlement of Indian communities (e.g., the role of the major river systems and other physical settings in providing goods and ecosystem services). • Provide examples of seasonal cycles in the major river systems that benefited humans and the permanent settlement of early Indian civilizations. • Map the locations and describe the major river systems that were important to the early civilizations of India and discuss their physical settings.

6. Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of China.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
1. Locate and describe the origins of Chinese civilization in the Huang-He Valley during the Shang Dynasty. Combine 6.5.1. and 6.6.1.	• Identify the importance of water and the major river system of the Huang-He Valley to the origin of Chinese civilization and social systems (economic, political, legal, cultural, and religious). • Provide examples of the natural resources (goods and ecosystem services) upon which the early Chinese civilizations relied. • Provide examples of the influence of the Huang-He Valley on the development of the Shang Dynasty. • Map the location of the major river systems in the Huang-He Valley.

Seventh Grade — California Science and History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Science

Evolution 3. Biological evolution accounts for the diversity of species developed through gradual processes over many generations. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C**
a. Students know both genetic variation and environmental factors are causes of evolution and diversity of organisms.	• Define evolution and identify its causes. • Describe the influence of genetic variation on the evolution and diversity of organisms. • Identify the role of environmental factors on the evolution and diversity of organisms, and the long-term functioning and health of natural systems. • Provide examples of how human population growth and human activities (e.g., expansion of communities, production and consumption of natural resources, the operation and expansion of human communities, and generation of byproducts) can affect both genetic variation and environmental factors). • Describe how human activities can affect reproductive cycles and genetic diversity, and thus, the evolution and diversity of species.
e. Students know that extinction of a species occurs when the environment changes and that the adaptive characteristics of a species are insufficient for its survival.	• Define and give examples of adaptation in living things. • Explain the effects of changing environmental factors in a natural system on species (e.g., changing biotic and abiotic factors including the availability of resources). • Identify factors that can cause extinction of a species and explain that some extinctions are natural while others are human-induced. • Recognize that throughout the history of life on Earth, some plants and animal species have died out completely in response to environmental changes. • Provide examples of how human population growth and expansion of communities, production and consumption of natural resources, and the operation and expansion of human communities can influence rates of extinction. • Describe how the capacity of natural systems to adjust to human-caused alterations depends on the scope, scale, and duration of the activity, and on the nature and health of the natural system. • Identify that in cases where species cannot respond to the degree of change, extinction may occur.

Earth and Life History (Earth Science) 4. Evidence from rocks allows us to understand the evolution of life on Earth. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
g. Students know how to explain significant developments and extinctions of plant and animal life on the geologic time scale.	• Identify changes to biotic and abiotic factors in natural systems that can result in the extinction of species. • Explain how extinction occurs. • Give examples of extinctions on Earth in geologic time. • Describe how natural systems can change gradually on a geologic time scale or rapidly (e.g., changes to biogeochemical cycles, system processes, species composition, and capacity to yield goods and ecosystem services). • Provide examples of human activities, and the resulting byproducts, that can cause rapid and/or significant changes to plant and animal life that might result in extinction. • Describe the effects when natural systems cannot adjust to human-caused alterations and how these effects are influenced by the nature of the system as well as the scope, scale, duration and byproducts of the activity.

History/Social Science

Academic Content Standards	
2. Students analyze the geographic, political, economic, religious, and social structures of the civilizations of Islam in the Middle Ages.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**

5. Describe the growth of cities and the establishment of trade routes among Asia, Africa, and Europe, the products and inventions that traveled along these routes (e.g., spices, textiles, paper, steel, new crops), and the role of merchants in Arab society.	• Describe how improvements to agricultural practices on the Arabian Peninsula increased supplies of food and other agricultural products (sometimes creating surpluses) which led to the growth of trade. • Describe how the growth of human populations and cities led to the establishment of trade routes among Asia, Africa, and Europe to import various goods and products (e.g., agricultural products). • Provide examples of the goods, products and inventions that were transported along these routes (e.g., spices, textiles, paper, steel, new crops). • Describe how towns were settled along well-known routes, thus allowing Arab society to take advantage of raw materials from locations that were even more distant from the region. • Provide examples of the direct and indirect influences of trade routes on the natural systems that were the sources of the goods and products that were being transported.

3. Students analyze the geographic, political, economic, religious, and social structures of the civilizations of China in the Middle Ages.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
5. Trace the historic influence of such discoveries as tea, the manufacture of paper, wood-block printing, the compass, and gunpowder.	• Identify the sources of the natural resources that were involved in discoveries such as tea, the manufacture of paper, wood-block printing, the compass, and gunpowder. • Recognize how discoveries such as tea and gunpowder, and the processes involved in their production, influenced worldwide natural resource production practices and consumption patterns. • Provide examples of the methods used to extract, harvest, transport and consume natural resources associated with the production of tea, the manufacture of paper, wood-block printing, the compass, and gunpowder. • Describe the effects of the methods used to extract, harvest, transport and consume natural resources associated with these discoveries. • Trace the historic influence of these discoveries on human social systems (economic, political, legal, cultural, and religious).

6. Students analyze the geographic, political, economic, religious, and social structures of the civilizations of Medieval Europe.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
3. Understand the development of feudalism, its role in the medieval European economy, the way in which it was influenced by physical geography (the role of the manor and the growth of towns), and how feudal relationships provided the foundation of political order.	• Identify the development of feudalism in medieval Europe as a mechanism for producing and controlling goods and ecosystem services. • Recognize how feudal relationships, because they controlled the production of goods and ecosystem services (e.g., agricultural products) influenced the medieval European economy. • Explain the influence of feudalism on the distribution of goods and services. • Describe how feudalism's role in the economy of medieval European provided the foundation for the development of the political order. • Provide examples of ways by which development of feudalism was influenced by physical geography (e.g., the role of manors, growth of towns).

7. Students compare and contrast the geographic, political, economic, religious, and social structures of the Meso-American and Andean civilizations.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
1. Study the locations, landforms, and climates of Mexico, Central America, and South America and their effects on Mayan, Aztec, and Incan economies, trade, and development of urban societies.	• Use a map to identify the locations of Mexico, Central America, and South America and identify the location of major landforms in the region. • Differentiate among the climatic zones throughout Mexico, Central America, and South America. • Describe the dependence of the Mayan, Aztec, and Incan civilizations on the goods and ecosystem services provide by the local natural systems. • Provide examples of the goods and ecosystems services that were the basis of the Mayan, Aztec, and Incan economies and trading systems. • Discuss the role of physical geography, climate and the availability of natural resources in the development of Mayan, Aztec, and Incan urban societies. • Explain the factors involved in making decisions regarding the supply and use of natural resources and how such decisions were made in the Mayan, Aztec, and Incan cultures.
3. Explain how and where each empire arose and how the Aztec and Incan empires were defeated by the Spanish.	• Recognize the dependence of the Aztec and Incan empires on goods, ecosystem services, natural systems and physical geography of Central and South America. • Use a map to identify the locations of the Aztec and Incan empires and describe how each empire arose. • Compare the factors taken into account by the Aztecs, Incas and the Spanish, and the decisions-making processes they used in relation to natural resources management. • Explain how the introduction of European diseases played an important part in the defeat of the Aztecs and Incas and had devastating effects on their populations.

Eighth Grade — California Science and History/Social Science Learning Objectives In the Context of California's Environmental Principles and Concepts

Science
None

History/Social Science

Academic Content Standards	
4. Students analyze the aspirations and ideals of the people of the new nation.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
1. Describe the country's physical landscapes, political divisions, and territorial expansion during the terms of the first four presidents.	• Identify the factors associated with the consumption of natural resources that led to territorial expansion during the terms of the first four presidents. • Describe how the country's physical landscapes and natural systems influenced territorial expansion. • Provide examples of the spectrum of factors that influenced the development of federal laws, policies, and incentives developed to regulate natural resource use and management during the terms of the first four presidents. • Recognize the influences of these natural resource use and management laws, policies, and incentives on natural systems.

6. Students analyze the divergent paths of the American people from 1800 to the mid-1800s and the challenges they faced, with emphasis on the Northeast.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
3. List the reasons for the wave of immigration from Northern Europe to the United States and describe the growth in the number, size, and spatial arrangements of cities (e.g., Irish immigrants and the Great Irish Famine).	• Identify changes to Northern Europe's natural systems and natural resources that played a role in the wave of immigration from Northern Europe to the United States. • Recognize how natural systems (the availability of goods and ecosystem services) played a role in the wave of immigration from Northern Europe to the United States during the 1800s. • Explain that the wave of immigration from Northern Europe caused the population of the United States, as well as its individual communities, to grow, thereby increasing the demand for natural resources and directly affecting the natural systems around them. • Discuss how decisions to migrate and settle in particular areas were influenced by a variety of factors, including the availability of resources and the character of the region's natural systems, and frequently by the similarities of the natural systems and resources in the immigrants' countries of origin.

8. Students analyze the divergent paths of the American people in the West from 1800 to the mid-1800s and the challenges they faced.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
4. Examine the importance of the great rivers and the struggle over water rights.	• Identify the role that the great rivers and water resources played in the West from 1800 to the mid-1800s (e.g., the location of towns, farming and ranching). • Describe the role of scientific and technological knowledge in the establishment of water rights. • Provide examples of the economic, political, legal, and cultural factors that played a role in decisions about water rights in the West. • Describe how the great river systems and struggles over water rights influenced the development of economic, political, and legal systems in the West. • Compare the issues related to water use and management in the West with other parts of the United States.

12. Students analyze the transformation of the American economy and the changing social and political conditions in the United States in response to the Industrial Revolution.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
1. Trace patterns of agricultural and industrial development as they relate to climate, use of natural resources, markets, and trade and locate such development on a map.	• Recognize patterns of agricultural and industrial development as they relate to climate, use of natural resources (i.e., goods and ecosystem services) and availability of markets. • Describe the role of scientific and technological knowledge in agricultural and industrial development. • Describe how technological advances in industry and agriculture during the late nineteenth and twentieth centuries influenced the growth of human populations and communities. • Provide examples of how the technological advances in industry and agriculture during the late nineteenth and twentieth centuries affected the natural systems where this development was taking place. • Explain how political, economic, cultural and environmental factors affected technological advances in industry and agriculture during the late nineteenth and early twentieth centuries.
5. Examine the location and effects of urbanization, renewed immigration, and industrialization (e.g., the effects on social fabric of cities, wealth and economic opportunity, the conservation movement).	• Describe the role of the growing population in the United States on the growth of cities and consumption of natural resources. • Recognize the factors that were considered in decisions regarding the growth and urbanization of cities (e.g., choice of areas and materials for construction, transportation systems). • Provide examples of how the growth of cities resulted in increasing demands for goods and ecosystem services from natural systems (e.g., agricultural products, forestry products) that placed greater demands on farmland (soils, water) and forests (timber). • Describe the direct and indirect effects of urbanization on the surrounding natural systems. • Explain the role of the Industrial Revolution in the development of the conservation movement. • Describe the role of scientific and technological knowledge in urbanization, renewed immigration, and industrialization, wealth and economic opportunity, and the conservation movement.

Earth Science High School — California Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Earth Science — High School

Academic Content Standards	
Energy in the Earth System 4. Energy enters the Earth system primarily as solar radiation and eventually escapes as heat. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
c. Students know the different atmospheric gases that absorb the Earth's thermal radiation and the mechanism and significance of the greenhouse effect.	• Identify the role of different atmospheric gases in the functioning of natural systems, human life and human communities. • Recognize the roles of natural systems and human communities in the production and absorption of atmospheric gases. • Describe the possible effects of human activities on the accumulation and dissipation of greenhouse gases. • Provide examples of the influences of the greenhouse effect and possible global climate change on natural systems and recognize that the effects depend on the characteristics of the particular natural system and the scope, scale, and duration of the changes. • Describe the spectrum of considerations that are involved in decisions about global climate change. • Describe the factors that limit knowledge about the scope and potential environmental impacts of global climate change. • Describe the role of scientific knowledge on making policy and management decisions about human activity related to global climate change.

5. Heating of Earth's surface and atmosphere by the sun drives convection within the atmosphere and oceans, producing winds and ocean currents. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
d. Students know properties of ocean water, such as temperature and salinity, can be used to explain the layered structure of the oceans, the generation of horizontal and vertical ocean currents, and the geographic distribution of marine organisms.	• Identify the properties of ocean water that can affect the geographic distribution of coastal and marine organisms. • Describe how the layered structure of the oceans and, horizontal and vertical ocean currents influence the geographic distribution of coastal and marine organisms. • Explain the importance of coastal and marine organisms to human lives and communities. • Provide examples of human practices that can locally influence the layered structure of the oceans or horizontal and vertical ocean currents. • Explain how changes to the geographic distribution of marine organisms can influence coastal and marine ecosystems, and human communities and economies. • Describe the role of scientific knowledge on making policy and management decisions about human activity related to coastal and marine ecosystems.
e. Students know rain forests and deserts on Earth are distributed in bands at specific latitudes.	• Describe the properties of rain forests and map their locations on Earth. • Describe the properties of deserts and map their locations on Earth. • Identify factors that affect the geographic distribution of rain forests and desert ecosystems on Earth. • Explain the importance of rain forests and desert ecosystems to human lives and communities. • Provide examples of human practices that can influence the functioning or geographic distribution of rain forests and desert ecosystems. • Explain how changes to the geographic distribution of rain forests and desert ecosystems can influence humans and human communities, economies and cultures. • Describe the role of scientific knowledge on making policy and management decisions about human activity related to rain forests and desert ecosystems.

Biogeochemical Cycles 7. Each element on Earth moves among reservoirs, which exist in the solid earth, in oceans, in the atmosphere, and within and among organisms as part of biogeochemical cycles. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
b. Students know the global carbon cycle: the different physical and chemical forms of carbon in the atmosphere, oceans, biomass, fossil fuels, and the movement of carbon among these reservoirs.	• Recognize that carbon is used by natural systems and organisms in a variety of physical and chemical forms. • Identify how the global carbon cycle is essential to all natural systems and organisms and to the functioning of human communities, economies and culture. • Provide examples of various carbon reservoirs (e.g., atmosphere, oceans, organisms/biomass, coal and oil deposits). • Describe how the movement of carbon among its various reservoirs (atmosphere, oceans, biomass, coal and oil deposits, and the atmosphere) is central to the flow of energy and matter within and between natural systems and human communities. • Provide examples of human practices that can influence the global carbon cycle (e.g., the movement of carbon among its various reservoirs).

Structure and Composition of the Atmosphere 8. Life has changed Earth's atmosphere, and changes in the atmosphere affect conditions for life. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
c. Students know the location of the ozone layer in the upper atmosphere, its role in absorbing ultraviolet radiation, and the way in which this layer varies both naturally and in response to human activities.	• Identify the significance of ozone and the ozone layer to natural systems and organisms, human life and to the functioning of human communities, economies and culture (e.g., role of the ozone layer in absorbing UV radiation). • Provide examples of how natural systems and human communities can affect Earth's ozone layer. • Describe how human activities and practices influence the ozone layer (e.g., refrigerants, aerosol propellants, fire extinguishers). • Describe the factors that limit knowledge about the scope and potential environmental impacts resulting from changes to the ozone layer. • Describe the role of scientific knowledge on making policy and management decisions about human activity related to atmospheric change.

California Geology 9. The geology of California underlies the state's wealth of natural resources as well as its natural hazards. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
c. Students know the importance of water to society, the origins of California's fresh water, and the relationship between supply and need.	• List major uses of water in California and describe their importance to society. • Identify the sources and locations of major water supplies in California (e.g., surface water, reservoirs, and aquifers). • Describe the methods used to collect, transport and consume water in California. • Provide examples of the direct and indirect effects of the growing human demand for water on the geographic extent, composition, biological diversity, and viability of natural systems. • Describe the spectrum of considerations that are involved in decisions about California's supplies of fresh water. • Describe the factors that limit knowledge about the scope and potential environmental impacts of water resource policies (e.g., economics, environmental costs and benefits, public health, historical and cultural implications, and personal views). • Describe the role of scientific knowledge on making policy and management decisions about human activity related to California's water supply.

Biology High School — California Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Biology/Life Science — High School

Academic Content Standards	
5. The genetic composition of cells can be altered by incorporation of exogenous DNA into the cells. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
c. Students know how genetic engineering (biotechnology) is used to produce novel biomedical and agricultural products.	• Recognize the importance of the genetic resources that are available from natural systems in the production of novel biomedical and agricultural products (e.g., pharmaceuticals, new crops). • Identify the ways the production and use of genetically engineered agricultural products may influence the composition, biological diversity, and viability of natural systems, as well as human health. • Identify the ways the production and use of biomedical products may influence the composition, biological diversity, and viability of natural systems, as well as human health. • Explain that genetically engineered agricultural products cannot be readily prevented from entering natural systems and may have beneficial, neutral or detrimental effects on those natural systems. • Identify the spectrum of factors that should be considered in making decisions regarding the introduction of genetically engineered products into natural systems.

Ecology 6. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
a. Students know biodiversity is the sum total of different kinds of organisms and is affected by alterations of habitats.	• Define biodiversity (biological diversity) as a measure of the different kinds of organisms in an ecosystem. • Explain the importance of biodiversity to human lives, communities and societies in terms of the goods and ecosystem services natural systems provide. • List the direct and indirect changes to natural systems that can affect biodiversity (e.g., alterations of habitats). • Describe the implications of loss of biodiversity to natural systems and human societies. • Provide examples of human activity that can influence the biodiversity of natural systems (e.g., methods used extract, harvest, transport and consume natural resources; expansion and operation of human communities; and, laws, regulations, policies, and incentives that govern management of natural resources). • Explain the influence of human activities on biodiversity is directly related to population growth, the quantities of resources consumed and the quantity and characteristics of the byproducts of those activities.
b. Students know how to analyze changes in an ecosystem resulting from changes in climate, human activity, introduction of nonnative species, or changes in population size.	• List variables that can cause changes to ecosystems (e.g., climate change and human activities such as the introduction of nonnative species and the conversion of land [loss of habitat]). • Provide examples of how each of these variables can lead to changes in ecosystems. • Categorize the effects on ecosystems as short-term, long-term or not determined • Determine if these variables have cumulative and/or synergistic effects on ecosystems. • Catalog the factors that influence the scope, scale and duration of these effects on ecosystems. • Explain the spectrum of factors and the processes that are involved in analysis and decision-making regarding the management of ecosystems.

8. Evolution is the result of genetic changes that occur in constantly changing environments. As a basis for understanding this concept:	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
a. Students know how natural selection determines the differential survival of groups of organisms.	• Identify the natural factors that can influence the rates at which environments change. • Recognize the natural factors that can influence the differential survival of groups of organisms. • Describe human activities that can influence the rates at which environments change. • Provide examples of human activities that can influence the differential survival of groups of organisms.
b. Students know a great diversity of species increases the chance that at least some organisms survive major changes in the environment.	• Recognize that biological diversity worldwide varies greatly in different biomes. • Identify those biomes characterized by high biological diversity and those biomes characterized by low biological diversity. • Explain why the geographic extent and biological diversity of ecosystems varies in different biomes. • Describe naturally-occurring factors as well as human activities and practices that can influence the species composition and geographic extent of an ecosystem. • Explain that high biological diversity increases the chance that at least some organisms survive major changes in the environment. • Recognize that the capacity of natural systems to adjust to human-caused alterations depends on the nature of the system as well as the scope, scale, and duration of the activity and the nature of its byproducts. • Explain how human-caused alterations to natural systems can influence the biological diversity of different biomes worldwide.
d. Students know reproductive or geographic isolation affects speciation.	• Describe human activities and practices that can influence the geographic isolation of populations of organisms (e.g., the expansion of human communities). • Provide cases studies in which the introduction of non-native species into ecosystems has caused the reproductive or geographic isolation of native organisms. • Explain the factors that cause increased susceptibility of island-dwelling organisms to rapid environmental changes.

Tenth Grade — California History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Tenth Grade History/Social Science

Academic Content Standards	
3. Students analyze the effects of the Industrial Revolution in England, France, Germany, Japan, and the United States.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
1. Analyze why England was the first country to industrialize. Combined with 10.3.5.	• Recognize that the growth in human populations and human communities in England placed greater demands on natural systems. • Describe how these increased demands provided an economic opportunity for the English to improve the methods they used to extract, harvest, transport, and produce goods from the natural resources that were available.
3. Describe the growth of population, rural to urban migration, and growth of cities associated with the Industrial Revolution.	• Identify the relation between the Industrial Revolution and the growth in human populations in urban areas (e.g., migration from rural to urban areas for new jobs). • Describe how the urbanization of the population that resulted from the Industrial Revolution influenced the natural systems surrounding the cities and towns directly and indirectly (e.g., the development of new housing and transportation systems, energy transmission systems). • Provide examples of changes to laws, policies, and incentives associated with natural resource use and management that resulted from the growth of population, rural to urban migration, and growth of cities associated with the Industrial Revolution.
5. Understand the connections among natural resources, entrepreneurship, labor, and capital in an industrial economy. Combined with 10.3.1.	• Recognize natural systems and the resources they provide (goods and ecosystem services) as the basic capital for the development of an industrial economy. • Provide examples of the major connections between natural systems and resources, and entrepreneurship, labor, and capital in industrial economies (e.g., the labor necessary to extract, harvest, transport, and produce goods and ecosystem services for human communities).

4. Students analyze patterns of global change in the era of New Imperialism in at least two of the following regions or countries: Africa, Southeast Asia, China, India, Latin America, and the Philippines.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
1. Describe the rise of industrial economies and their link to imperialism and colonialism (e.g., the role played by national security and strategic advantage; moral issues raised by the search for national hegemony, Social Darwinism, and the missionary impulse; material issues such as land, resources, and technology).	• Identify the role of natural resources (goods and ecosystem services)—most of which were supplied by the colonial possessions in Africa, Southeast Asia, China, India, Latin America, and the Philippines)—in the rise of industrial economies. • Describe how the practices of resource extraction, transport and consumption affected the natural systems and economies in the colonies. • Explain the role, in decisions about the control and use of natural resources, played by national security and strategic advantage; moral issues raised by the search for national hegemony, Social Darwinism, and the missionary impulse; material issues such as land, resources, and technology. • Provide examples of the laws, policies and practices developed by the colonial powers as they related to control of supplies of natural resources and energy in the colonies.
3. Explain imperialism from the perspective of the colonizers and the colonized and the varied immediate and long-term responses by the people under colonial rule.	• Explain that decisions to colonize certain areas of the world were made primarily on the basis on the need to acquire certain natural resources, raw materials and energy for the colonial powers. • Provide examples of the natural systems in the colonies that were the sources of these natural resources. • Describe imperialism from the perspective of local control and economic benefit from natural resources versus control and economic benefits gained by the colonial powers. • Provide examples of how control over the natural resources influenced the immediate and long-term responses by the people under colonial rule.

Eleventh Grade — California History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Eleventh Grade History/Social Science

Academic Content Standards	
5. Students analyze the major political, social, economic, technological, and cultural developments of the 1920s.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
7. Discuss the rise of mass production techniques, the growth of cities, the impact of new technologies (e.g., the automobile, electricity), and the resulting prosperity and effect on the American landscape. Used tires	• Identify the relationship between mass production techniques and: the consumption of natural resources; the rates of consumption of manufactured goods; and the production of byproducts that may have detrimental, beneficial or neutral effects on natural systems. • Describe the direct and indirect influences of growing cities on the American landscape and the associated natural systems. • Provide examples of the direct and indirect effects of new technologies (e.g., automobiles, electricity) on natural systems (e.g., consumption of land for transportation systems, release of toxic and non-toxic byproducts and waste materials).

8. Students analyze the economic boom and social transformation of post-World War II America.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
6. Discuss the diverse environmental regions of North America, their relationship to local economies, and the origins and prospects of environmental problems in those regions.	• Identify the major ecosystems and environmental regions in North America. • Provide examples of the goods and ecosystem services provided to the human communities and local economies by major ecosystems across the environmental regions of North America. • Describe the methods used by human communities to extract, harvest, transport, manufacture products and consume goods and ecosystem services from the major ecosystems in their regions. • Explain the relationship between the methods used to extract, harvest, transport, manufacture products and consume goods and ecosystem services and the prospects for environmental problems in these regions. • Provide examples of how, as a result of environmental problems in these regions, the assessment of social, economic, political, and environmental factors has changed over time and influenced decisions about processes used to extract, harvest, transport, and manufacture products and consume goods and ecosystem services.

9. Students analyze U.S. foreign policy since World War II.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
7. Examine relations between the United States and Mexico in the twentieth century, including key economic, political, immigration, and environmental issues.	• Identify key environmental issues that influence the relations between the United States and Mexico. • Describe the differences between the two countries in terms of how each assesses and balances social, economic, political, and environmental factors in its decisions about the use and management of natural systems and the goods and ecosystem services they produce. • Recognize the influence of growing human populations in the United States and Mexico on the relationships between the countries and their decisions about the use and management of natural systems and the goods and ecosystem services they produce. • Identify treaties and conventions that regulate environmental issues shared by both the United States and Mexico. • Provide examples of environmental impacts that are not contained by the political boundaries between the United States and Mexico.

11. Students analyze the major social problems and domestic policy issues in contemporary American society.	**Standards-based Learning Objectives in the Context of the EP&C Students will:**
5. Trace the impact of, need for, and controversies associated with environmental conservation, expansion of the national park system, and the development of environmental protection laws, with particular attention to the interaction between environmental protection advocates and property rights advocates.	• Recognize the spectrum of factors considered in making decisions about resources and natural systems and how those factors influence decisions. • Identify the benefits and costs associated with the establishment and maintenance of the national park, national wildlife refuge and national forest systems. • Provide examples of the social, economic, and political considerations that lead to controversies associated with environmental conservation and the development of environmental protection laws.

	• Provide examples of laws, policies and regulations related to the use and management of natural systems and resources that influence individual property rights and liberties. • Identify the role of environmental protection advocates and property rights advocates in generating the controversies associated with environmental conservation and the enforcement of environmental protection laws.

Twelfth Grade — California History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Twelfth Grade History/Social Science

Principles of American Democracy	
2. Students evaluate and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
2. Explain how economic rights are secured and their importance to the individual and to society (e.g., the right to acquire, use, transfer, and dispose of property; right to choose one's work; right to join or not join labor unions; copyright and patent). Combine with 12.2.2. AD and 12.2.5. AD	• Describe how laws, regulations and policies affecting land use and land ownership can have a major influence on the growth of human populations and communities. • Describe how laws, regulations and policies also directly affect the extraction, harvest, transportation, and consumption of natural resources, as well as management of the resulting byproducts.
5. Describe the reciprocity between rights and obligations; that is, why enjoyment of one's rights entails respect for the rights of others. Combine with 12.2.2. AD and 12.2.5. AD Environmental justice	• Identify the spectrum of factors considered in making decisions about resources and natural systems, how those factors influence decisions, and how the enjoyment of one's rights in relation to the environment entails respect for the rights of others. • Provide examples of how decisions related to the use and management of natural systems and resources can result in the need to establish a balance between individual rights and liberties and choices related to the "common good."
3. Students evaluate and take and defend positions on what the fundamental values and principles of civil society are (i.e., the autonomous sphere of voluntary personal, social, and economic relations that are not part of government), their interdependence, and the meaning and importance of those values and principles for a free society.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
2. Explain how civil society makes it possible for people, individually or in association with others, to bring their influence to bear on government in ways other than voting and elections.	• Identify examples of how civil society makes it possible for people, individually or in association, to influence the factors considered in making decisions about natural systems, resources, and environmental management and, in turn affect how those factors influence decisions. • Provide specific examples of how people, individually and in association, have influenced decisions about natural systems, resources and environmental management.
7. Students analyze and compare the powers and procedures of the national, state, tribal, and local governments.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
6. Compare the processes of lawmaking at each of the three levels of government, including the role of lobbying and the media. Green chemistry and superfund	• Identify the major responsibilities of state and local governments in: controlling and mitigating environmental pollution; managing water, energy and air resources; establishing and managing park, wildlife refuge and forest systems; and other key environmental concerns. • Describe the jurisdiction of federal, state (e.g., California), and local courts and the interrelationships among them regarding decisions about ownership, management and use of natural systems and resources, and responsibilities for environmental management issues. • Describe how public policy is formed, including the setting of the public agenda and implementation of it through regulations and executive orders, using a historical environmental issue as an example. • Compare the processes of lawmaking at each of the three levels of government, including the role of lobbying and the media, using a historical environmental issue as an example. • Provide examples of laws, regulations, policies and incentives developed by the State of California to govern the use and management of natural systems and resources. • Provide specific examples of the role of the State of California in controlling and mitigating environmental pollution; managing water, energy and air resources; establishing and managing park, wildlife refuge and forest systems; and other key environmental concerns. • Explain the scope of presidential power and decision-making through examination of case studies related to the establishment of the national park, national wildlife refuge and national forest systems.

Twelfth Grade — California History/Social Science Learning Objectives
In the Context of California's Environmental Principles and Concepts

Principles of Economics 1. Students understand common economic terms and concepts and economic reasoning.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
4. Evaluate the role of private property as an incentive in conserving and improving scarce resources, including renewable and nonrenewable natural resources.	• Recognize the causal relationship between scarcity of the goods and ecosystem services provided by natural systems and the need for choices. • Identify and analyze examples of conservation and the improvement of scarce resources that have been achieved through ownership of private property. • Identify and analyze examples of renewable and nonrenewable natural resources that are managed through the system of private property ownership. • Explain how incentive systems are used to encourage specific management practices that conserve natural resources (e.g., endangered species, coal, timber, oil). • Provide examples of how the quality, quantity and reliability of the goods and ecosystem services provided by natural systems are directly affected by the health of those systems.

2. Students analyze the elements of America's market economy in a global setting.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
2. Discuss the effects of changes in supply and/or demand on the relative scarcity, price, and quantity of particular products. Combine with 12.2.2. E and 12.2.7. E sustainability	• Provide contemporary examples of the effects of changes in supply and/or demand on the relative scarcity, price, and quantity of particular goods and ecosystems services that are provided by natural systems (e.g., oil, hydroelectric power, water, agricultural products). • Describe the direct and indirect effects on natural systems of changes in supply and/or demand for specific goods and ecosystem services (e.g., changing water flow to obtain either water supplies or hydroelectric power). • Provide examples of laws, policies, and incentives that have been developed to regulate changes in supply and/or demand on the relative scarcity, price, and quantity of particular products (e.g., hydroelectric power, water, agricultural products).
7. Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products. Combine with 12.2.2. E and 12.2.7. E	• Identify examples of how domestic and international competition in a market economy affects the rates of extraction, harvest, transportation, and consumption of natural resources as well as the management of the resulting byproducts. • Describe the direct and indirect effects of increased rates of extraction, harvest, transportation, and consumption of natural resources. • Explain how greater quantities of the resulting byproducts influence the quality, quantity and reliability of the goods and ecosystem services provided by natural systems and the health of those systems.

3. Students analyze the influence of the federal government on the American economy.	**Standards-based Learning Objectives in the Context of the EP&C** **Students will:**
1. Understand how the role of government in a market economy often includes providing for national defense, addressing environmental concerns, defining and enforcing property rights, attempting to make markets more competitive, and protecting consumers' rights. e-waste	• Describe examples of environmental laws, regulations, policies and incentives that influence the market economy. • Explain the effects of these environmental laws, regulations, policies and incentives on making markets more or less competitive; and, protecting consumers' rights, as well as environmental and human health. • Describe a government fiscal policy (taxation, borrowing, spending) that is used to encourage or discourage the extraction, harvest, transportation, or consumption of natural resources and/or the management of the byproducts that result from these processes. (moved from 12.3.3. E)