

Education in Action’s “Capitol Rocks” – Discover Texas Field Trips
4th Grade Social Studies and Science Curriculum Guide by Strand

Fourth grade students will travel to Austin on Education in Action’s “Capitol Rocks” program and explore Inner Space Cavern and the Texas State Capitol. Students will learn about Texas history and government with a focus on early explorers, the Texas Revolution, and the legislative process. Participants continue their day at the Inner Space Cavern in Georgetown, where they actively experience the physical properties of the Earth’s crust including minerals, rocks and soils.

§113.15. Social Studies, Grade 4.

(a) Introduction.

(1) In Grade 4, students examine the history of Texas from the early beginnings to the present within the context of influences of North America. Historical content focuses on Texas history, including the Texas Revolution, establishment of the Republic of Texas, and subsequent annexation to the United States. Students discuss important issues, events, and individuals of the 19th, 20th, and 21st centuries. Students conduct a thorough study of regions in Texas and North America resulting from human activity and from physical features. The location, distribution, and patterns of economic activities and settlement in Texas further enhance the concept of regions. Students describe how early American Indians in Texas and North America met their basic economic needs. Students identify motivations for European exploration and colonization and reasons for the establishment of Spanish settlements and missions. Students explain how American Indians governed themselves and identify characteristics of Spanish colonial and Mexican governments in Texas. Students recite and explain the meaning of the Pledge to the Texas Flag. Students identify the contributions of people of various racial, ethnic, and religious groups to Texas and describe the impact of science and technology on life in the state. Students use critical-thinking skills to identify cause-and-effect relationships, compare and contrast, and make generalizations and predictions.

(2) To support the teaching of the essential knowledge and skills, the use of a variety of rich primary and secondary source material such as documents, biographies, novels, speeches, letters, poetry, songs, and artworks is encouraged. Where appropriate, local topics should be included. Motivating resources are available from museums, historical sites, presidential libraries, and local and state preservation societies.

(5) Throughout social studies in Kindergarten-Grade 12, students build a foundation in history; geography; economics; government; citizenship; culture; science, technology, and society; and social studies skills. The content, as appropriate for the grade level or course, enables students to understand the importance of patriotism, function in a free enterprise society, and appreciate the basic democratic values of our state and nation as referenced in the Texas Education Code (TEC), §28.002(h).

**Education in Action’s “Capitol Rocks” – Discover Texas Field Trips
4th Grade Social Studies and Science Curriculum Guide by Strand**

Name of Activity	TEKS Knowledge and Skills
<ul style="list-style-type: none"> • State Capitol • Bus Activities 	<p>(2) History. The student understands the causes and effects of European exploration and colonization of Texas. The student is expected to:</p> <ul style="list-style-type: none"> (C) explain when, where, and why the Spanish established settlements and Catholic missions in Texas as well as important individuals; (E) identify the accomplishments and explain the economic motivations and impact of significant empresarios, including Stephen F. Austin and Martín de León, on the settlement of Texas. <p>(3) History. The student understands the importance of the Texas Revolution, the Republic of Texas, and the annexation of Texas to the United States. The student is expected to:</p> <ul style="list-style-type: none"> (A) analyze the causes, major events, and effects of the Texas Revolution, including the Battle of the Alamo, the Texas Declaration of Independence, the Runaway Scrape, and the Battle of San Jacinto; (B) summarize the significant contributions of individuals such as William B. Travis, James Bowie, David Crockett, Juan N. Seguín, Plácido Benavides, José Francisco Ruiz, Antonio López de Santa Anna, Susanna Dickinson, and Enrique Esparza; (C) identify leaders important to the founding of Texas as a republic and state, including José Antonio Navarro, Sam Houston, Mirabeau Lamar, and Anson Jones; (D) describe the successes, problems, and organizations of the Republic of Texas such as the establishment of a constitution, economic struggles, relations with American Indians, and the Texas Rangers; and (E) explain the events that led to the annexation of Texas to the United States and the impact of the U.S.-Mexican War. <p>(13) Government. The student understands important ideas in historical documents of Texas and the United States. The student is expected to:</p> <ul style="list-style-type: none"> (A) identify the purposes and explain the importance of the Texas Declaration of Independence and the Texas Constitution; (B) identify and explain the basic functions of the three branches of government according to the Texas Constitution. <p>(14) Citizenship. The student understands important customs, symbols, and celebrations of Texas. The student is expected to:</p> <ul style="list-style-type: none"> (A) explain the meaning of various patriotic symbols and landmarks of Texas, including the six flags that flew over Texas, the Alamo, and the San Jacinto Monument. <p>(15) Citizenship. The student understands the importance of active individual participation in the democratic process. The student is expected to:</p> <ul style="list-style-type: none"> (C) explain the duty of the individual in state and local elections such as being informed and voting; (D) identify the importance of historical figures and important individuals who modeled active participation in the democratic process such as Sam Houston, Barbara Jordan, Lorenzo de Zavala, Ann Richards, Henry B. González, Wallace Jefferson, and other local individuals. <p>(16) Citizenship. The student understands the importance of effective leadership in a constitutional republic. The student is expected to:</p>

**Education in Action’s “Capitol Rocks” – Discover Texas Field Trips
4th Grade Social Studies and Science Curriculum Guide by Strand**

	<p>(A) identify leaders in state, local, and national governments, including the governor, local members of the Texas Legislature, the local mayor, U.S. senators, local U.S. representatives, and Texans who have been president of the United States; and</p> <p>(B) identify leadership qualities of state and local leaders, past and present.</p> <p>(19) Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:</p> <p>(A) differentiate between, locate, and use valid primary and secondary sources such as technology; interviews; biographies; oral, print, and visual material; documents; and artifacts to acquire information about Texas;</p> <p>(B) analyze information by applying absolute and relative chronology through sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions.</p>
<ul style="list-style-type: none"> • General 	<p>(21) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:</p> <p>(A) use social studies terminology correctly;</p> <p>(B) incorporate main and supporting ideas in verbal and written communication;</p> <p>(C) express ideas orally based on research and experiences; and</p> <p>(D) create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies.</p> <p>(22) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others. The student is expected to use problem-solving and decisionmaking processes to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution.</p>

§112.15. Science, Grade 4.

(a) Introduction.

(1) In Grade 4, investigations are used to learn about the natural world. Students should understand that certain types of questions can be answered by investigations and that methods, models, and conclusions built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. They have limitations and, based on new discoveries, are constantly being modified to more closely reflect the natural world.

(B) Within the natural environment, students know that earth materials have properties that are constantly changing due to Earth's forces. The students learn that the natural world consists of resources, including renewable and nonrenewable, and their responsibility to conserve our natural resources for future generations. They will also explore Sun, Earth, and Moon relationships. The students will recognize that our major source of energy is the Sun.

**Education in Action’s “Capitol Rocks” – Discover Texas Field Trips
4th Grade Social Studies and Science Curriculum Guide by Strand**

(C) Within the living environment, students know and understand that living organisms within an ecosystem interact with one another and with their environment. The students will recognize that plants and animals have basic needs, and they are met through a flow of energy known as food webs. Students will explore how all living organisms go through a life cycle and have structures that enable organisms to survive in their ecosystem.

Name of Activity	TEKS Knowledge and Skills
<ul style="list-style-type: none"> • Cavern Activities • Bus Activities 	<p>(5) Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:</p> <p style="padding-left: 40px;">(A) measure, compare, and contrast physical properties of matter, including mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float.</p> <p>(7) Earth and space. The students know that Earth consists of useful resources and its surface is constantly changing. The student is expected to:</p> <p style="padding-left: 40px;">(B) observe and identify slow changes to Earth's surface caused by weathering, erosion, and deposition from water, wind, and ice</p> <p>(8) Earth and space. The student knows that there are recognizable patterns in the natural world and among the Sun, Earth, and Moon system. The student is expected to:</p> <p style="padding-left: 40px;">(B) describe and illustrate the continuous movement of water above and on the surface of Earth through the water cycle and explain the role of the Sun as a major source of energy in this process.</p> <p>(9) Organisms and environments. The student knows and understands that living organisms within an ecosystem interact with one another and with their environment. The student is expected to::</p> <p style="padding-left: 40px;">(A) investigate that most producers need sunlight, water, and carbon dioxide to make their own food, while consumers are dependent on other organisms for food; and</p> <p style="padding-left: 40px;">(B) describe the flow of energy through food webs, beginning with the Sun, and predict how changes in the ecosystem affect the food web.</p>

**Education in Action’s “Capitol Rocks” – Discover Texas Field Trips
5th Grade Social Studies and Science Curriculum Guide by Strand**

Fifth grade students will travel to Austin on Education in Action’s “Capitol Rocks” program and explore Inner Space Cavern and the Texas State Capitol. Students will learn about Texas history and government with a focus on early explorers, the Texas Revolution, and the legislative process. Participants continue their day at the Inner Space Cavern in Georgetown, where they actively experience the physical properties of the Earth’s crust including minerals, rocks and soils.

§113.16. Social Studies, Grade 5.

(a) Introduction.

(2) To support the teaching of the essential knowledge and skills, the use of a variety of rich primary and secondary source material such as documents, biographies, novels, speeches, letters, poetry, songs, and artworks is encouraged. Motivating resources are available from museums, historical sites, presidential libraries, and local and state preservation societies.

(5) Throughout social studies in Kindergarten-Grade 12, students build a foundation in history; geography; economics; government; citizenship; culture; science, technology, and society; and social studies skills. The content, as appropriate for the grade level or course, enables students to understand the importance of patriotism, function in a free enterprise society, and appreciate the basic democratic values of our state and nation as referenced in the Texas Education Code (TEC), §28.002(h).

Name of Activity	TEKS Knowledge and Skills
<ul style="list-style-type: none"> • State Capitol • Bus Activities 	<p>(15) Government. The student understands the framework of government created by the U.S. Constitution of 1787. The student is expected to:</p> <ul style="list-style-type: none"> (A) identify and explain the basic functions of the three branches of government; (C) distinguish between national and state governments and compare their responsibilities in the U.S. federal system. <p>(23) Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:</p> <ul style="list-style-type: none"> (E) identify the historical context of an event. <p>(26) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others. The student is expected to use problem-solving and decision making processes to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution.</p>

**Education in Action’s “Capitol Rocks” – Discover Texas Field Trips
5th Grade Social Studies and Science Curriculum Guide by Strand**

§112.16. Science, Grade 5.

(a) Introduction.

(1) In Grade 5, scientific investigations are used to learn about the natural world. Students should understand that certain types of questions can be answered by investigations and that methods, models, and conclusions built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. They have limitations and based on new discoveries are constantly being modified to more closely reflect the natural world.

(B) Within the natural environment, students learn how changes occur on Earth's surface and that predictable patterns occur in the sky. Students learn that the natural world consists of resources, including nonrenewable and renewable.

(C) Within the living environment, students learn that structure and function of organisms can improve the survival of members of a species. Students learn to differentiate between inherited traits and learned behaviors.

(4) Scientific investigation and reasoning. The student knows how to use a variety of tools and methods to conduct science inquiry. The student is expected to

collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices; and materials to support observations of habitats or organisms such as terrariums and aquariums.

Name of Activity	TEKS Knowledge and Skills
<ul style="list-style-type: none"> • Cavern Activities • Bus Activities 	<p>(1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and environmentally appropriate and ethical practices. The student is expected to:</p> <p style="padding-left: 40px;">(B) make informed choices in the conservation, disposal, and recycling of materials.</p> <p>(3) Scientific investigation and reasoning. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:</p> <p style="padding-left: 40px;">(B) draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon system and formation of sedimentary rock works or looks.</p>

**Education in Action’s “Capitol Rocks” – Discover Texas Field Trips
5th Grade Social Studies and Science Curriculum Guide by Strand**

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| | <p>(7) Earth and space. The student knows Earth’s surface is constantly changing and consists of useful resources. The student is expected to:</p> <ul style="list-style-type: none">(A) explore the processes that led to the formation of sedimentary rocks and fossil fuels; and(B) recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, or ice. <p>(9) Organisms and environment. The student knows that there are relationships, systems, and cycles within environments. The student is expected to:</p> <ul style="list-style-type: none">(A) observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving components;(B) describe the flow of energy within a food web, including the roles of the Sun, producers, consumers, and decomposers;(C) predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways; and(D) identify fossils as evidence of past living organisms and the nature of the environments at the time using model. |
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Education in Action’s “Capitol Rocks!” – Discover Texas Field Trips 7th Grade Social Studies and Science Curriculum Guide by Strand

Seventh grade students will travel to Austin on Education in Action’s “Capitol Rocks!” program and explore the Texas State Capitol and the Natural Bridges Cavern or the Inner Space Cavern. Students will learn about Texas government and science with a focus on the Texas Revolution, the legislative process, and the rock cycle.

§113.19. Social Studies, Grade 7.

(1) In Grade 7, students study the history of Texas from early times to the present. Content is presented with more depth and breadth than in Grade 4. Students examine the full scope of Texas history, including Natural Texas and its People; Age of Contact; Spanish Colonial; Mexican National; Revolution and Republic; Early Statehood; Texas in the Civil War and Reconstruction; Cotton, Cattle, and Railroads; Age of Oil; Texas in the Great Depression and World War II; Civil Rights and Conservatism; and Contemporary Texas eras. The focus in each era is on key individuals, events, and issues and their impact. Students identify regions of Texas and the distribution of population within and among the regions and explain the factors that caused Texas to change from an agrarian to an urban society. Students describe the structure and functions of municipal, county, and state governments, explain the influence of the U.S. Constitution on the Texas Constitution, and examine the rights and responsibilities of Texas citizens. Students use primary and secondary sources to examine the rich and diverse cultural background of Texas as they identify the different racial and ethnic groups that settled in Texas to build a republic and then a state. Students analyze the impact of scientific discoveries and technological innovations on the development of Texas in various industries such as agricultural, energy, medical, computer, and aerospace. Students use primary and secondary sources to acquire information about Texas.

(2) To support the teaching of the essential knowledge and skills, the use of a variety of rich primary and secondary source material such as biographies, autobiographies, novels, speeches, letters, diaries, poetry, songs, and images is encouraged. Motivating resources are available from museums, historical sites, presidential libraries, and local and state preservation societies.

(3) The eight strands of the essential knowledge and skills for social studies are intended to be integrated for instructional purposes. Skills listed in the social studies skills strand in subsection (c) of this section should be incorporated into the teaching of all essential knowledge and skills for social studies. A greater depth of understanding of complex content material can be attained when integrated social studies content from the various disciplines and critical-thinking skills are taught together. Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(5) Throughout social studies in Kindergarten-Grade 12, students build a foundation in history; geography; economics; government; citizenship; culture; science, technology, and society; and social studies skills. The content, as appropriate for the grade level or course, enables students to understand the importance of patriotism, function in a free enterprise society, and appreciate the basic democratic values of our state and nation as referenced in the Texas Education Code (TEC), §28.002(h).

(6) Students understand that a constitutional republic is a representative form of government whose representatives derive their authority from the consent of the governed, serve for an established tenure, and are sworn to uphold the constitution.

(8) Students discuss how and whether the actions of U.S. citizens and the local, state, and federal governments have achieved the ideals espoused in the founding documents.

**Education in Action’s “Capitol Rocks!” – Discover Texas Field Trips
7th Grade Social Studies and Science Curriculum Guide by Strand**

Name of Activity	TEKS Knowledge and Skills
<ul style="list-style-type: none"> • State Capitol • Bus Activities 	<p>2) History. The student understands how individuals, events, and issues through the Mexican National Era shaped the history of Texas. The student is expected to:</p> <p>(A) identify the contributions of significant individuals, including Moses Austin, Stephen F. Austin, Erasmo Seguín, Martín De León, and Green DeWitt, during the Mexican settlement of Texas; and</p> <p>(3) History. The student understands how individuals, events, and issues related to the Texas Revolution shaped the history of Texas. The student is expected to:</p> <p>(A) explain the roles played by significant individuals during the Texas Revolution, including George Childress, Lorenzo de Zavala, James Fannin, Sam Houston, Antonio López de Santa Anna, Juan N. Seguín, and William B. Travis; and</p> <p>(B) explain the issues surrounding significant events of the Texas Revolution, including the Battle of Gonzales; the siege of the Alamo, William B. Travis's letter "To the People of Texas and All Americans in the World," and the heroism of the diverse defenders who gave their lives there; the Constitutional Convention of 1836; Fannin's surrender at Goliad; and the Battle of San Jacinto.</p> <p>(13) Government. The student understands the basic principles reflected in the Texas Constitution. The student is expected to:</p> <p>(A) identify how the Texas Constitution reflects the principles of limited government, republicanism, checks and balances, federalism, separation of powers, popular sovereignty, and individual rights; and</p> <p>(14) Government. The student understands the structure and functions of government created by the Texas Constitution. The student is expected to:</p> <p>(A) describe the structure and functions of government at municipal, county, and state levels; and</p> <p>(15) Citizenship. The student understands the rights and responsibilities of Texas citizens in a democratic society. The student is expected to:</p> <p>(A) explain rights of Texas citizens; and</p> <p>(B) explain civic responsibilities of Texas citizens and the importance of civic participation.</p> <p>(16) Citizenship. The student understands the importance of the expression of different points of view in a democratic society. The student is expected to:</p> <p>(A) identify different points of view of political parties and interest groups on important Texas issues, past and present; and</p> <p>(B) describe the importance of free speech and press in a democratic society.</p> <p>(17) Citizenship. The student understands the importance of effective leadership in a democratic society. The student is expected to:</p> <p>(A) identify the leadership qualities of elected and appointed leaders of Texas, past and present, including Texans who have been president of the United States; and</p> <p>(B) identify the contributions of Texas leaders such as Lawrence Sullivan "Sul" Ross, John Nance Garner ("Cactus Jack"),</p>

**Education in Action’s “Capitol Rocks!” – Discover Texas Field Trips
7th Grade Social Studies and Science Curriculum Guide by Strand**

James A. Baker III, Henry B. González, Kay Bailey Hutchison, Barbara Jordan, Raymond L. Telles, Sam Rayburn, and Raul A. Gonzalez Jr.

(18) Culture. The student understands the concept of diversity within unity in Texas. The student is expected to:

(D) identify contributions to the arts by Texans such as Roy Bedichek, Diane Gonzales Bertrand, J. Frank Dobie, Scott Joplin, [Elisabet Ney](#), [Amado Peña Jr.](#), [Walter Prescott Webb](#), and [Horton Foote](#).

(8) Geography. The student understands the location and characteristics of places and regions of Texas. The student is expected to:

(A) locate and compare the Mountains and Basins, Great Plains, North Central Plains, and Coastal Plains regions;

(B) locate and compare places of importance in Texas in terms of physical and human characteristics such as major cities, waterways, natural and historic landmarks, political and cultural regions, and local points of interest; and

(C) analyze the effects of physical and human factors such as climate, weather, landforms, irrigation, transportation, and communication on major events in Texas.

(9) Geography. The student understands the effects of the interaction between humans and the environment in Texas. The student is expected to:

(A) identify ways in which Texans have adapted to and modified the environment and explain the positive and negative consequences of the modifications; and

(B) explain ways in which geographic factors such as the Galveston Hurricane of 1900, the Dust Bowl, limited water resources, and alternative energy sources have affected the political, economic, and social development of Texas.

**Education in Action’s “Capitol Rocks!” – Discover Texas Field Trips
7th Grade Social Studies and Science Curriculum Guide by Strand**

<ul style="list-style-type: none">• General	<p>(20) Social studies skills. The student applies critical-thinking skills to organize and use information acquired through established research methodologies from a variety of valid sources, including technology. The student is expected to:</p> <ul style="list-style-type: none">(A) differentiate between, locate, and use valid primary and secondary sources such as media and news services, biographies, interviews, and artifacts to acquire information about Texas;(B) analyze information by applying absolute and relative chronology through sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;(C) organize and interpret information from outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;(D) identify bias and points of view from the historical context surrounding an event that influenced the participants; <p>(22) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:</p> <ul style="list-style-type: none">(A) use social studies terminology correctly; <p>(23) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others. The student is expected to:</p> <ul style="list-style-type: none">(A) describe governmental and democratic processes such as voting, due process, and caucuses using simulations and models; and(C) use problem-solving and decision-making processes to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution.
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**Education in Action’s “Capitol Rocks!” – Discover Texas Field Trips
7th Grade Social Studies and Science Curriculum Guide by Strand**

§112.27. Science, Grade 7.

(1) In Grades 6 through 8 Science, content is organized into recurring strands. The concepts within each grade level build on prior knowledge, prepare students for the next grade level, and establish a foundation for high school courses. In Grade 7, the following concepts will be addressed in each strand.

- (D) Earth and space. Students explore characteristics and organization of objects and the role of gravity within our solar system. Earth has a specific set of characteristics that allows life to exist. Students further their understanding of the geosphere by illustrating how Earth's features change over time through tectonic movement. Students investigate how humans depend on and affect the hydrosphere.

- (E) Organisms and environments. Students further their understanding of organisms as systems made up of cells organized into tissues, tissues into organs, and organs into organ systems by identifying the main functions of the organs within the human body. During both sexual and asexual reproduction, traits are passed on to the next generation. Students understand how traits in populations can change through the processes of natural and artificial selection. Students analyze how energy flows through trophic levels and how biodiversity impacts an ecosystem's sustainability. Students gain an understanding of the taxonomic classifications of organisms and how characteristics determine their classification.

<ul style="list-style-type: none"> • Natural Bridges Cavern or Inner Space Cavern 	<p>(b) Knowledge and skills.</p> <p>(10) Earth and space. The student understands the causes and effects of plate tectonics. The student is expected to:</p> <ul style="list-style-type: none"> (A) describe the evidence that supports that Earth has changed over time, including fossil evidence, plate tectonics, and superposition; and <p>(11) Earth and space. The student understands how human activity can impact the hydrosphere. The student is expected to:</p> <ul style="list-style-type: none"> (A) analyze the beneficial and harmful influences of human activity on groundwater and surface water in a watershed; and (A) describe human dependence and influence on ocean systems and explain how human activities impact these systems. <p>(14) Organisms and environments. The student knows how the taxonomic system is used to describe relationships between organisms. The student is expected to:</p> <ul style="list-style-type: none"> (B) describe the characteristics of the recognized kingdoms and their importance in ecosystems such as bacteria aiding digestion or fungi decomposing organic matter.
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