# TEKS INDEX

## ELEMENTARY SCHOOL

### Kindergarten Science

| Texas Essential Knowledge and Skills | | Lesson Title (Category) |
|---|---|---|
| K.2 (A) | Ask questions about organisms, objects and events observed in the natural world. | You Are My Sunshine (Energy) |
| K.2 (B) | Plan and conduct simple descriptive investigations. | You Are My Sunshine (Energy) |
| K.2 (C) | Collect data and make observations using simple tools. | You Are My Sunshine (Energy) |
| K.2 (D) | Record and organize data and observations using pictures, numbers and words. | You Are My Sunshine (Energy) |
| K.2 (E) | Communicate observations about simple descriptive investigations. | You Are My Sunshine (Energy) |
| K.5 (B) | Observe, record and discuss how materials can be changed by heating or cooling. | You Are My Sunshine (Energy) |

### Kindergarten Math

| | | |
|---|---|---|
| K.8 (A) | Collect, sort and organize data into two or three categories. | You Are My Sunshine (Energy) |

### Kindergarten Art

| | | |
|---|---|---|
| K.1 (B) | Identify the elements of art, including line, shape, color, texture and form, and the principles of design, including repetition/pattern and balance, in the environment. | You Are My Sunshine (Energy) |

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| | | |
|---|---|---|
| K.2 (A) | Create artworks using a variety of lines, shapes, colors, textures and forms. | You Are My Sunshine (Energy) |

## 1st Grade Science

| | | |
|---|---|---|
| 1.2 (A) | Ask questions about organisms, objects and events observed in the natural world. | You Are My Sunshine (Energy) |
| 1.2 (B) | Plan and conduct simple descriptive investigations. | You Are My Sunshine (Energy) |
| 1.2 (C) | Collect data and make observations using simple tools. | You Are My Sunshine (Energy) |
| 1.2 (D) | Record and organize data using pictures, numbers and words. | You Are My Sunshine (Energy) |
| 1.2 (E) | Communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations. | You Are My Sunshine (Energy) |
| 1.5 (B) | Predict and identify changes in materials caused by heating and cooling. | You Are My Sunshine (Energy) |

## 1st Grade Math

| | | |
|---|---|---|
| 1.8 (A) | Collect, sort and organize data in up to three categories using models/representations such as tally marks or T-charts. | You Are My Sunshine (Energy) |

## 1st Grade Social Studies

| | | |
|---|---|---|
| 1.15 (B) | Explain the way folktales and legends such as Aesop's fables reflect beliefs, customs, language, and traditions of communities. | You Are My Sunshine (Energy) |

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## 1st Grade Art

| | | |
|---|---|---|
| 1.1 (A) | Identify similarities, differences and variations among subjects in the environment using the senses. | You Are My Sunshine (Energy) |
| 1.1 (B) | Identify the elements of art, including line, shape, color, texture and form, and the principles of design, including emphasis, repetition/pattern and balance, in nature and human-made environments. | You Are My Sunshine (Energy) |
| 1.2 (A) | Invent images that combine a variety of lines, shapes, colors, textures and forms. | You Are My Sunshine (Energy) |
| 1.4 (B) | Identify ideas found in collections such as real or virtual art museums, galleries, portfolios or exhibitions using original artworks created by artists or peers. | You Are My Sunshine (Energy) |

## 2nd Grade Science

| | | |
|---|---|---|
| 2.1 (B) | Identify and demonstrate how to use, conserve and dispose of natural resources and materials such as conserving water and reuse or recycling of paper, plastic and metal. | We Built This School (Cities) |
| 2.3 (A) | Identify and explain a problem, and propose a task and solution for the problem. | We Built This School (Cities) |
| 2.5 (D) | Combine materials that when put together can do things that they cannot do by themselves, such as building a tower or a bridge, and justify the selection of those materials based on their physical properties. | We Built This School (Cities) |

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## 2nd Grade Math

| | | |
|---|---|---|
| 2.8 (D) | Compose two-dimensional shapes and three-dimensional solids with given properties or attributes. | We Built This School (Cities) |

## 2nd Grade Social Studies

| | | |
|---|---|---|
| 2.8 (C) | Identify ways people can conserve and replenish natural resources. | We Built This School (Cities) |

## 2nd Grade Art

| | | |
|---|---|---|
| 2.1 (B) | Identify the elements of art, including line, shape, color, texture, form and space, and the principles of design, including emphasis, repetition/pattern, movement/rhythm and balance. | We Built This School (Cities) |
| 2.2 (A) | Express ideas and feelings in personal artworks using a variety of lines, shapes, colors, textures, forms and space. | We Built This School (Cities) |
| 2.3 (C) | Analyze how art affects everyday life and is connected to jobs in art and design. | We Built This School (Cities) |
| 2.4 (A) | Support reasons for preferences in personal artworks. | We Built This School (Cities) |
| 2.4 (B) | Compare and contrast ideas found in collections such as real or virtual art museums, galleries, portfolios or exhibitions using original artworks created by artists or peers. | We Built This School (Cities) |

## 3rd Grade Science

| | | |
|---|---|---|
| 3.7 (A) | Explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains. | Getting Dirty (Earth) |

# TEKS INDEX

### 3rd Grade Math

| | | |
|---|---|---|
| 3.8 (A) | Summarize a data set with multiple categories using a frequency table, dot plot, pictograph or bar graph with scaled intervals. | Getting Dirty (Earth) |

### 3rd Grade Social Studies

| | | |
|---|---|---|
| 3.4 (B) | Identify and compare how people in different communities adapt to or modify the physical environment in which they live such as deserts, mountains, wetlands and plains. | Getting Dirty (Earth) |

### 3rd Grade Art

| | | |
|---|---|---|
| 3.1 (B) | Use appropriate vocabulary when discussing the elements of art, including line, shape, color, texture, form, space and value, and the principles of design, including emphasis, repetition/pattern, movement/rhythm, contrast/variety, balance, proportion and unity. | Getting Dirty (Earth) |
| 3.2 (C) | Produce drawings, paintings, prints, sculpture (including modeled forms) and other art forms such as ceramics, fiber art, constructions, mixed media, installation art, digital art and media, and photographic imagery, using a variety of materials. | Getting Dirty (Earth) |
| 3.3 (A) | Identify simple main ideas expressed in artworks from various times and places. | Getting Dirty (Earth) |

### 4th Grade Science

| | | |
|---|---|---|
| 4.3 (A) | Analyze, evaluate and critique scientific explanations by using evidence, logical reasoning and experimental and observational testing. | Rock Me Like a Hurricane (Climate) |

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## 4th Grade Math

| | | |
|---|---|---|
| 4.1 (A) | Apply mathematics to problems arising in everyday life, society and the workplace. | Rock Me Like a Hurricane (Climate) |

## 4th Grade Social Studies

| | | |
|---|---|---|
| 4.9 (B) | Identify reasons why people have adapted to and modified their environment in Texas, past and present, such as the use of natural resources to meet basic needs, facilitate transportation and enhance recreational activities. | Rock Me Like a Hurricane (Climate) |

## 4th Grade Art

| | | |
|---|---|---|
| 4.1 (B) | Use appropriate vocabulary when discussing the elements of art, including line, shape, color, texture, form, space and value, and the principles of design, including emphasis, repetition/pattern, movement/rhythm, contrast/variety, balance, proportion and unity. | Rock Me Like a Hurricane (Climate) |
| 4.1 (C) | Discuss the elements of art as building blocks and the principles of design as organizers of works of art. | Rock Me Like a Hurricane (Climate) |
| 4.2 (B) | Create compositions using the elements of art and principles of design. | Rock Me Like a Hurricane (Climate) |
| 4.2 (C) | Produce drawings, paintings, prints, sculpture (including modeled forms) and other art forms such as ceramics, fiber art, constructions, mixed media, installation art, digital art and media, and photographic imagery using a variety of art media and materials. | Rock Me Like a Hurricane (Climate) |
| 4.3 (A) | Compare content in artworks for various purposes such as the role art plays in reflecting life, expressing emotions, telling stories, or documenting history and traditions. | Rock Me Like a Hurricane (Climate) |

| | | |
|---|---|---|
| 4.4 (A) | Evaluate the elements of art, principles of design, intent or expressive qualities in artworks of self, peers, and historical and contemporary artists. | Rock Me Like a Hurricane (Climate) |
| 4.4 (B) | Use methods such as written or oral response or artist statements to identify emotions found in collections of artworks created by self, peers, and major historical or contemporary artists in real or virtual portfolios, galleries or art museums. | Rock Me Like a Hurricane (Climate) |

**5th Grade Science**

| | | |
|---|---|---|
| 5.1 (B) | Make informed choices in the conservation, disposal and recycling of materials. | Trash to Cash (Energy), Saving Some Green (Climate) |
| 5.5 (B) | Demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand and sand and water. | Trash to Cash (Energy) |
| 5.5 (C) | Identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water. | Trash to Cash (Energy) |
| 5.9 (A) | Observe the way organisms live and survive in their ecosystem by interacting with the living and non-living components. | Locally Grown (Earth), Let It Be (Cities) |
| 5.9 (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. | Locally Grown (Earth), Diversity Makes Us Stronger (Cities), Let It Be (Cities) |

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## 5th Grade Math

| | | |
|---|---|---|
| 5.3 (A) | Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication or division. | Saving Some Green (Climate) |
| 5.3 (B) | Multiply with fluency a three-digit number by a two-digit number using the standard algorithm. | Saving Some Green (Climate) |
| 5.3 (C) | Solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm. | Saving Some Green (Climate) |
| 5.3 (E) | Solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations and the relationship to the multiplication of whole numbers. | Saving Some Green (Climate) |
| 5.3 (J) | Represent division of a unit fraction by a whole number and the division of a whole number by a unit fraction such as 1/3 ÷ 7 and 7 ÷ 1/3 using objects and pictorial models, including area models. | Saving Some Green (Climate) |
| 5.3 (K) | Add and subtract positive rational numbers fluently. | Saving Some Green (Climate) |

## 5th Grade Social Studies

| | | |
|---|---|---|
| 5.4 (B) | Identify and explain how changes resulting from the Industrial Revolution led to conflict among sections of the United States. | Saving Some Green (Climate) |

# TEKS INDEX

| | | |
|---|---|---|
| 5.9 (A) | Describe how and why people have adapted to and modified their environment in the United States, past and present, such as the use of human resources to meet basic needs. | Trash to Cash (Energy) |
| 5.9 (B) | Analyze the positive and negative consequences of human modification of the environment in the United States, past and present. | Diversity Makes Us Stronger (Cities), Trash to Cash (Energy) |
| 5.11 (B) | Describe how the free enterprise system works in the United States. | Locally Grown (Earth) |
| 5.12 (A) | Explain how supply and demand affects consumers in the United States. | Saving Some Green (Climate) |
| 5.12 (B) | Evaluate the effects of supply and demand on business, industry and agriculture, including the plantation system, in the United States. | Locally Grown (Earth) |
| 5.18 (A) | Explain the duty individuals have to participate in civic affairs at the local, state and national levels. | Diversity Makes Us Stronger (Cities), Trash to Cash (Energy) |
| 5.18 (B) | Explain how to contact elected and appointed leaders in local, state and national governments. | Trash to Cash (Energy) |
| 5.23 (C) | Explain how scientific discoveries and technological innovations in the fields of medicine, communication and transportation have benefited individuals and society in the United States. | Diversity Makes Us Stronger (Cities) |
| 5.26 (A) | Use a problem-solving process 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. | Diversity Makes Us Stronger (Cities) |
| 5.26 (B) | Use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences and take action to implement a decision. | Diversity Makes Us Stronger (Cities) |

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## 5th Grade Art

| Texas Essential Knowledge and Skills | | Lesson Title (Category) |
|---|---|---|
| 5.1 (A) | Develop and communicate ideas drawn from life experiences about self, peers, family, school or community, and from the imagination as sources for original works of art. | Saving Some Green (Climate), Locally Grown (Earth) |
| 5.1 (B) | Use appropriate vocabulary when discussing the elements of art, including line, shape, color, texture, form, space and value, and the principles of design, including emphasis, repetition/pattern, movement/rhythm, contrast/variety, balance, proportion and unity. | Diversity Makes Us Stronger (Cities), Saving Some Green (Climate), Locally Grown (Earth), Trash to Cash (Energy), Let It Be (Cities) |
| 5.1 (C) | Discuss the elements of art as building blocks and the principles of design as organizers of works of art. | Diversity Makes Us Stronger (Cities), Saving Some Green (Climate), Locally Grown (Earth), Trash to Cash (Energy), Let It Be (Cities) |
| 5.2 (A) | Integrate ideas drawn from life experiences to create original works of art. | Trash to Cash (Energy) |
| 5.2 (B) | Create compositions using the elements of art and principles of design. | Diversity Makes Us Stronger (Cities), Saving Some Green (Climate), Locally Grown (Earth), Trash to Cash (Energy), Let It Be (Cities) |
| 5.2 (C) | Produce drawings, paintings, prints and sculpture, including modeled forms; and other art forms such as ceramics, fiber art, constructions, digital art and media, and photographic imagery using a variety of materials. | Diversity Makes Us Stronger (Cities), Saving Some Green (Climate), Locally Grown (Earth), Trash to Cash (Energy), Let It Be (Cities) |
| 5.3 (A) | Compare the purpose and effectiveness of artworks from various times and places, evaluating the artist's use of media and techniques, expression of emotions or use of symbols. | Trash to Cash (Energy), Locally Grown (Earth) |

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| | | |
|---|---|---|
| 5.3 (C) | Connect art to career opportunities for positions such as architects, animators, cartoonists, engineers, fashion designers, filmmakers, graphic artists, illustrators, interior designers, photographers and web designers. | Diversity Makes Us Stronger (Cities), Saving Some Green (Climate), Locally Grown (Earth), Trash to Cash (Energy) |
| 5.3(D) | Investigate connections of visual art concepts to other disciplines. | Diversity Makes Us Stronger (Cities), Saving Some Green (Climate), Locally Grown (Earth) |
| 5.4 (A) | Evaluate the elements of art, principles of design, general intent, media and techniques or expressive qualities in artworks of self, peers, or historical and contemporary artists. | Diversity Makes Us Stronger (Cities), Saving Some Green (Climate), Locally Grown (Earth), Trash to Cash (Energy), Let It Be (Cities) |
| 5.4 (B) | Use methods such as written or oral response or artist statements to identify themes found in collections of artworks created by self, peers and major historical or contemporary artists in real or virtual portfolios, galleries or art museums. | Saving Some Green (Climate), Trash to Cash (Energy) |
| 5.4 (C) | Compile collections of personal artworks for purposes of self-assessment or exhibition such as physical artworks, electronic images, sketchbooks or portfolios. | Locally Grown (Earth) |

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## MIDDLE SCHOOL

### 6th Grade Science

| | | |
|---|---|---|
| 6.1 (A) | Demonstrate safe practices during laboratory and field investigations as outlined in Texas Education Agency approved safety standards. | Guarant-treed Oxygen (Earth) |
| 6.7 (A) | Research and discuss the advantages and disadvantages of using coal, oil, natural gas, nuclear power, biomass, wind, hydropower, geothermal and solar resources. | In the Zone (Climate), The Answer is Blowing in the Wind (Energy) |
| 6.8 (A) | Compare and contrast potential and kinetic energy. | Guarant-treed Oxygen (Earth), Potentially Perpetual (Cities) |
| 6.8 (B) | Identify and describe the changes in position, direction and speed of an object when acted upon by unbalanced forces. | Potentially Perpetual (Cities) |
| 6.9 (A) | Investigate methods of thermal energy transfer, including conduction, convection and radiation. | Windows to Efficiency (Energy), Guarant-treed Oxygen (Earth) |
| 6.9 (B) | Verify through investigations that thermal energy moves in a predictable pattern from warmer to cooler until all the substances attain the same temperature such as an ice cube melting. | Windows to Efficiency (Energy) |
| 6.9 (C) | Demonstrate energy transformations such as energy in a flashlight battery changes from chemical energy to electrical energy to light energy. | Guarant-treed Oxygen (Earth) |

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## 6th Grade Social Studies

| | | |
|---|---|---|
| 6.5 (A) | Identify and explain the geographic factors responsible for the location of economic activities in places and regions. | Potentially Perpetual (Cities) |
| 6.5 (B) | Identify geographic factors such as location, physical features, transportation corridors and barriers, and distribution of natural resources that influence a society's ability to control territory. | Potentially Perpetual (Cities) |
| 6.5 (C) | Explain the impact of geographic factors on economic development and the domestic and foreign policies of societies. | Potentially Perpetual (Cities) |
| 6.7 (A) | Identify and analyze ways people have adapted to the physical environment in various places and regions. | In the Zone (Climate) |
| 6.7 (B) | Identify and analyze ways people have modified the physical environment such as mining, irrigation and transportation infrastructure. | In the Zone (Climate), Guarant-treed Oxygen (Earth) |
| 6.7 (C) | Describe ways in which technology influences human interactions with the environment such as humans building dams for flood control. | In the Zone (Climate) |
| 6.20 (A) | Give examples of scientific discoveries and technological innovations, including the roles of scientists and inventors which have transcended the boundaries of societies and have shaped the world. | Windows to Efficiency (Energy) |
| 6.20 (B) | Explain how resources, belief systems, economic factors and political decisions have affected the use of technology. | Windows to Efficiency (Energy) |
| 6.20 (C) | Make predictions about future social, political, economic, cultural and environmental impacts that may result from future scientific discoveries and technological innovations. | Windows to Efficiency (Energy) |
| 6.21 (D) | Identify different points of view about an issue or current topic. | Guarant-treed Oxygen (Earth) |

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| | | |
|---|---|---|
| 6.22 (B) | Incorporate main and supporting ideas in verbal and written communication based on research. | Guarant-treed Oxygen (Earth) |
| 6.23 (A) | Use a problem-solving process 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. | In the Zone (Climate) |
| 6.23 (B) | Use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision. | In the Zone (Climate) |

## 7th Grade Science

| | | |
|---|---|---|
| 7.2 (A) | Plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology. | Rot On! (Earth) |
| 7.2 (B) | Design and implement experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology. | Rot On! (Earth) |
| 7.3 (C) | Identify advantages and limitations of models such as size, scale, properties and materials. | Energizing Your Lawn (Energy) |
| 7.5 (A) | Recognize that radiant energy from the sun is transformed into chemical energy through the process of photosynthesis. | Energizing Your Lawn (Energy) |

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| | | |
|---|---|---|
| 7.5 (B) | Diagram the flow of energy through living systems, including food chains, food webs and energy pyramids. | Energizing Your Lawn (Energy) |
| 7.8 (A) | Predict and describe how catastrophic events such as floods, hurricanes or tornadoes impact ecosystems. | Sustainably Sound (Climate) |
| 7.8 (B) | Analyze the effects of weathering, erosion and deposition on the environment in ecoregions of Texas. | Get Your Deposit Back (Cities) |
| 7.8 (C) | Model the effects of human activity on groundwater and surface water in a watershed. | Get Your Deposit Back (Cities), Be the Change (Earth) |
| 7.9 (A) | Analyze the characteristics of objects in our solar system that allow life to exist such as the proximity of the sun, presence of water and composition of the atmosphere. | Energizing Your Lawn (Energy) |
| 7.10 (A) | Observe and describe how different environments, including microhabitats in schoolyards and biomes, support different varieties of organisms. | Be the Change (Earth) |
| 7.10 (B) | Describe how biodiversity contributes to the sustainability of an ecosystem. | Be the Change (Earth) |
| 7.10 (C) | Observe, record and describe the role of ecological succession such as in a microhabitat of a garden with weeds. | Be the Change (Earth) |

# TEKS INDEX

| | | |
|---|---|---|
| 7.13 (A) | Investigate how organisms respond to external stimuli found in the environment such as phototropism and fight or flight. | Be the Change (Earth) |

## 7th Grade Math

| | | |
|---|---|---|
| 7.1 (A) | Apply mathematics to problems arising in everyday life, society and the workplace. | Energizing Your Lawn (Energy), Get Your Deposit Back (Cities) |
| 7.1 (B) | use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. | Get Your Deposit Back (Cities) |
| 7.1 (E) | Create and use representations to organize, record and communicate mathematical ideas. | Energizing Your Lawn (Energy) |
| 7.4 (B) | Calculate unit rates from rates in mathematical and real-world problems. | Energizing Your Lawn (Energy) |
| 7.4 (D) | Solve problems involving ratios, rates and percent, including multi-step problems involving percent increase and percent decrease, and financial literacy problems. | Energizing Your Lawn (Energy) |

## 7th Grade Social Studies

| | | |
|---|---|---|
| 7.10 (A) | Identify ways in which Texans have adapted to and modified the environment and analyze the positive and negative consequences of the modifications. | Get Your Deposit Back (Cities), Rot On! (Earth) |

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| | | |
|---|---|---|
| 7.10 (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. | Energizing Your Lawn (Energy) |
| 7.21 (D) | Identify points of view from the historical context surrounding an event and the frame of reference that influenced the participants. | Energizing Your Lawn (Energy) |
| 7.22 (C) | Transfer information from one medium to another, including written to visual and statistical to written or visual, using computer software as appropriate. | Energizing Your Lawn (Energy) |
| 7.22 (D) | Create written, oral and visual presentations of social studies information. | Energizing Your Lawn (Energy) |
| 7.23 (A) | Use a problem-solving process 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. | Sustainably Sound (Climate) |
| 7.23 (B) | Use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision. | Sustainably Sound (Climate) |

**8th Grade Science**

| | | |
|---|---|---|
| 8.6 (A) | Demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion. | Lunar Energy (Climate) |
| 8.7 (C) | Relate the position of the moon and sun to their effect on ocean tides. | Lunar Energy (Climate) |

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| | | |
|---|---|---|
| 8.9 (B) | Relate plate tectonics to the formation of crustal features. | The Temps, They are a'Changin (Climate) |
| 8.9 (C) | Interpret topographic maps and satellite views to identify land and erosional features, and predict how these features may be reshaped by weathering. | The Temps, They are a'Changin (Climate) |
| 8.11 (A) | Investigate how organisms and populations in an ecosystem depend on and may compete for biotic factors such as food and abiotic factors such as quantity of light, water, range of temperatures, or soil composition. | Reef-lief (Energy), Back to the Future (Earth), Mussel-ey Invaders (Cities) |
| 8.11 (B) | Explore how short- and long-term environmental changes affect organisms and traits in subsequent populations. | Back to the Future (Earth), Mussel-ey Invaders (Cities) |
| 8.11 (C) | Recognize human dependence on ocean systems and explain how human activities such as runoff, artificial reefs or use of resources have modified these systems. | Reef-lief (Energy), Mussel-ey Invaders (Cities) |

**8th Grade Social Studies**

| | | |
|---|---|---|
| 8.10 (C) | Analyze the effects of physical and human geographic factors on major historical and contemporary events in the United States. | Back to the Future (Earth) |
| 8.11 (B) | Describe the positive and negative consequences of human modification of the physical environment of the United States. | Mussel-ey Invaders (Cities) |
| 8.13 (B) | Identify the economic factors that brought about rapid industrialization and urbanization. | Lunar Energy (Climate) |

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| | | |
|---|---|---|
| 8.19 (F) | Explain how the rights and responsibilities of U.S. citizens reflect our national identity. | Reef-lief (Energy) |
| 8.27 (A) | Explain the effects of technological and scientific innovations such as the steamboat, the cotton gin and interchangeable parts. | Lunar Energy (Climate) |
| 8.27 (B) | Analyze the impact of transportation and communication systems on the growth, development and urbanization of the United States. | Lunar Energy (Climate) |
| 8.27 (D) | Explain how technological innovations brought about economic growth such as how the factory system contributed to rapid industrialization and the Transcontinental Railroad led to the opening of the west. | Lunar Energy (Climate) |
| 8.29 (A) | Differentiate between, locate and use valid primary and secondary sources such as computer software, databases, media and news services, biographies, interviews and artifacts to acquire information about the United States. | Mussel-ey Invaders (Cities) |
| 8.29 (B) | Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions. | Mussel-ey Invaders (Cities) |
| 8.29 (E) | Support a point of view on a social studies issue or event. | Back to the Future (Earth) |
| 8.30 (C) | Transfer information from one medium to another, including written to visual and statistical to written or visual, using computer software as appropriate. | Back to the Future (Earth) |
| 8.30 (D) | Create written, oral and visual presentations of social studies information. | Back to the Future (Earth) |

| | | |
|---|---|---|
| 8.31 (A) | Use a problem-solving process 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. | Back to the Future (Earth) |
| 8.31 (B) | Use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences and take action to implement a decision. | Back to the Future (Earth) |

## Art, Middle School 1

| | | |
|---|---|---|
| 1 (A) | Identify and illustrate concepts from direct observation, original sources, personal experiences and communities such as family, school, cultural, local, regional, national and international. | In the Zone (Climate), Guarant-treed Oxygen (Earth) |
| 1 (B) | Understand and apply the elements of art, including line, shape, color, texture, form, space and value as the fundamentals of art in personal artworks using art vocabulary appropriately. | Potentially Perpetual (Cities), In the Zone (Climate), Guarant-treed Oxygen (Earth), Windows to Efficiency (Energy), The Answer is Blowing in the Wind (Energy) |
| 1 (C) | Understand and apply the principles of design, including emphasis, repetition/pattern, movement/rhythm, contrast/variety, balance, proportion and unity in personal artworks using art vocabulary appropriately. | Potentially Perpetual (Cities), Windows to Efficiency (Energy), In the Zone (Climate), The Answer is Blowing in the Wind (Energy) |
| 1 (D) | Discuss the expressive properties of artworks such as appropriation, meaning, narrative, message and symbol using art vocabulary accurately. | Guarant-treed Oxygen (Earth) |
| 2 (A) | Create original artworks based on direct observations, original sources, personal experiences and the community. | Potentially Perpetual (Cities), In the Zone (Climate), Guarant-treed Oxygen (Earth), Windows to Efficiency (Energy), The Answer is Blowing in the Wind (Energy) |

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| | | |
|---|---|---|
| 2 (B) | Apply the art-making process to solve problems and generate design solutions. | Potentially Perpetual (Cities), Guarant-treed Oxygen (Earth), The Answer is Blowing in the Wind (Energy) |
| 2 (C) | Produce artworks, including drawings, paintings, prints, sculptures/modeled forms, ceramics, fiber art, photographic imagery, and digital art and media using a variety of materials. | In the Zone (Climate), Windows to Efficiency (Energy), Guarant-treed Oxygen (Earth), The Answer is Blowing in the Wind (Energy) |
| 3 (A) | Identify the influence of historical and political events in artworks. | Guarant-treed Oxygen (Earth) |
| 3 (B) | Identify examples of art that convey universal themes such as beliefs, cultural narrative, life cycles, the passage of time, identity, conflict and cooperation. | Guarant-treed Oxygen (Earth) |
| 3 (C) | Explain the relationships that exist between societies and their art and architecture. | Potentially Perpetual (Cities), Guarant-treed Oxygen (Earth), The Answer is Blowing in the Wind (Energy) |
| 3 (D) | Explore career and avocational opportunities in art such as various design, museum and fine arts fields. | In the Zone (Climate), Windows to Efficiency (Energy) |
| 4 (A) | Create written or oral responses to artwork using appropriate art vocabulary. | In the Zone (Climate), Potentially Perpetual (Cities), Windows to Efficiency (Energy), The Answer is Blowing in the Wind (Energy) |
| 4 (B) | Analyze original artworks using a method of critique such as describing the artwork, analyzing the way it is organized, interpreting the artist's intention and evaluating the success of the artwork. | In the Zone (Climate), Potentially Perpetual (Cities), Windows to Efficiency (Energy), Guarant-treed Oxygen (Earth) |

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|---|---|---|
| 4 (D) | Investigate and explore original artworks in a variety of venues outside of the classroom such as museums, galleries or community art. | Guarant-treed Oxygen (Earth) |
| 4 (E) | Understand and demonstrate proper exhibition etiquette. | In the Zone (Climate) |

**Art, Middle School 2**

| | | |
|---|---|---|
| 1 (A) | Identify and illustrate ideas from direct observation, original sources, imagination, personal experiences and communities such as family, school, cultural, local, regional, national and international. | Sustainably Sound (Climate), Get Your Deposit Back (Cities), Energizing Your Lawn (Energy) |
| 1 (B) | Compare and contrast the elements of art, including line, shape, color, texture, form, space, and value, as the fundamentals of art in personal artworks using vocabulary accurately. | Sustainably Sound (Climate), Get Your Deposit Back (Cities), Energizing Your Lawn (Energy), Rot On! (Earth), Be the Change (Earth) |
| 1 (C) | Compare and contrast the principles of design, including emphasis, repetition/pattern, movement/rhythm, contrast/variety, balance, proportion and unity, in personal artworks using vocabulary accurately. | Sustainably Sound (Climate), Energizing Your Lawn (Energy), Be the Change (Earth) |
| 1 (D) | Understand and apply the expressive properties of artworks such as appropriation, meaning, narrative, message and symbol using art vocabulary accurately. | Be the Change (Earth) |
| 2 (A) | Create original artworks that express a variety of ideas based on direct observations, original sources and personal experiences, including memory, identity, imagination and the community. | Sustainably Sound (Climate), Get Your Deposit Back (Cities), Be the Change (Earth) |
| 2 (B) | Apply the artmaking process to solve problems and generate design solutions. | Sustainably Sound (Climate), Energizing Your Lawn (Energy), Be the Change (Earth) |

| | | |
|---|---|---|
| 2 (C) | Apply technical skills effectively using a variety of materials to produce artworks, including drawings, paintings, prints, sculptures/modeled forms, ceramics, fiber art, photographic imagery, and digital art and media. | Get Your Deposit Back (Cities), Energizing Your Lawn (Energy), Be the Change (Earth) |
| 3 (A) | Analyze ways that global, cultural, historical and political issues influence artworks. | Sustainably Sound (Climate) |
| 3 (B) | Analyze selected artworks to determine contemporary relevance in relationship to universal themes such as belief, cultural narrative, life cycles, the passage of time, identity, conflict and cooperation. | Sustainably Sound (Climate), Be the Change (Earth) |
| 4 (A) | Create written or oral responses about personal or collaborative artworks addressing purpose, technique, organization, judgment and personal expression. | Sustainably Sound (Climate), Get Your Deposit Back (Cities), Energizing Your Lawn (Energy), Rot On! (Earth), Be the Change (Earth) |
| 4 (B) | Analyze original artworks using a method of critique such as describing the artwork, analyzing the way it is organized, interpreting the artist's intention and evaluating the success of the artwork. | Get Your Deposit Back (Cities), Energizing Your Lawn (Energy), Rot On! (Earth) |

**Art, Middle School 3**

| | | |
|---|---|---|
| 1 (A) | Identify and illustrate concepts from direct observation, original sources, imagination, personal experience and communities such as family, school, cultural, local, regional, national and international. | Lunar Energy (Climate), Mussel-ey Invaders (Cities), Reef-lief (Energy), Back to the Future (Earth), The Temps, They are a'Changin (Climate) |
| 1 (B) | Evaluate the elements of art, including line, shape, color, texture, form, space and value, as the fundamentals of art in personal artworks using vocabulary accurately. | Lunar Energy (Climate), Mussel-ey Invaders (Cities), Back to the Future (Earth), The Temps, They are a'Changin (Climate) |

# TEKS INDEX

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|---|---|---|
| 1 (C) | Evaluate the principles of design, including emphasis, repetition/pattern, movement/rhythm, contrast/variety, balance, proportion and unity, in personal artworks using vocabulary accurately. | Lunar Energy (Climate), Mussel-ey Invaders (Cities), Reef-lief (Energy), Back to the Future (Earth) |
| 1 (D) | Compare and contrast the expressive properties of artworks, including appropriation, meaning, narrative, message and symbol, using vocabulary accurately. | Back to the Future (Earth) |
| 2 (A) | Create original artworks expressing themes found through direct observation, original sources, personal experiences (including memory, identity, and imagination) and the community. | Mussel-ey Invaders (Cities), Reef-lief (Energy), The Temps, They are a'Changin (Climate) |
| 2 (B) | Apply the artmaking process to solve problems and generate design solutions. | Lunar Energy (Climate), Back to the Future (Earth), The Temps, They are a'Changin (Climate) |
| 2 (C) | Create artworks by selecting appropriate art materials, including drawings, paintings, prints, sculptures/modeled forms, ceramics, fiber art, photographic imagery, and digital art and media. | Mussel-ey Invaders (Cities), Reef-lief (Energy) |
| 3 (A) | Analyze the ways in which global, contemporary, historical and political issues have influenced art. | The Temps, They are a'Changin (Climate), Lunar Energy (Climate) |
| 3 (B) | Analyze cultural ideas expressed in artworks relating to social, political and environmental themes such as environment/nature, conflict and power, relationships to others, and reality/fantasy. | Lunar Energy (Climate), Mussel-ey Invaders (Cities), Reef-lief (Energy), The Temps, They are a'Changin (Climate) |
| 4 (A) | Create written and oral responses about personal or collaborative artworks addressing purpose, technique, organization, judgment, and personal expression. | Lunar Energy (Climate), |

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| 4 (B) | Analyze original artworks and portfolios using a method of critique such as describing the artwork, analyzing the way it is organized, interpreting the artist's intention and evaluating the success of the artwork. | Lunar Energy (Climate), Mussel-ey Invaders (Cities), Reef-lief (Energy) |
| 4 (C) | Investigate and explore original artworks in a variety of venues outside of the classroom such as museums, galleries or community art. | Lunar Energy (Climate) |

## HIGH SCHOOL

### Biology

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| 12 (C) | Analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs and ecological pyramids. | Growing Pains (Earth) |
| 12 (E) | Describe how environmental change can impact ecosystem stability. | Growing Pains (Earth) |

### Aquatic Science

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|---|---|---|
| 2 (E) | Plan and implement investigative procedures, including asking questions, formulating testable hypotheses, and selecting, handling, and maintaining appropriate equipment and technology. | Shedding the Tradition (Cities) |
| 2 (F) | Collect data individually or collaboratively, make measurements with precision and accuracy, record values using appropriate units, and calculate statistically relevant quantities to describe data, including mean, median and range. | Shedding the Tradition (Cities) |
| 5 (B) | Collect baseline quantitative data, including pH, salinity, temperature, mineral content, nitrogen compounds, and turbidity from an aquatic environment. | Growing Pains (Earth) |

# TEKS INDEX

| | | |
|---|---|---|
| 7 (A) | Identify sources and determine the amounts of water in a watershed, including rainfall, groundwater and surface water. | Shedding the Tradition (Cities) |
| 7 (B) | Identify factors that contribute to how water flows through a watershed. | Shedding the Tradition (Cities) |
| 7 (C) | Identify water quantity and quality in a local watershed. | Shedding the Tradition (Cities) |
| 12 (A) | Predict effects of chemical, organic, physical and thermal changes from humans on the living and nonliving components of an aquatic ecosystem. | Shedding the Tradition (Cities), Growing Pains (Earth) |
| 12 (B) | Analyze the cumulative impact of human population growth on an aquatic system. | Shedding the Tradition (Cities) |

**Environmental Systems**

| | | |
|---|---|---|
| 4 (C) | Diagram abiotic cycles, including the rock, hydrologic, carbon and nitrogen cycles. | Choosing to Consume (Climate) |
| 4 (D) | Make observations and compile data about fluctuations in abiotic cycles, and evaluate the effects of abiotic factors on local ecosystems and local biomes. | Choosing to Consume (Climate) |
| 4 (E) | Measure the concentration of solute, solvent and solubility of dissolved substances such as dissolved oxygen, chlorides and nitrates, and describe their impact on an ecosystem. | Choosing to Consume (Climate) |
| 4 (F) | Predict how the introduction or removal of an invasive species may alter the food chain and affect existing populations in an ecosystem. | Choosing to Consume (Climate) |
| 6 (A) | Define and identify the components of the geosphere, hydrosphere, cryosphere, atmosphere, and biosphere and the interactions among them. | Choosing to Consume (Climate) |
| 8 (B) | Explain how regional changes in the environment may have a global effect. | Choosing to Consume (Climate) |

# TEKS INDEX

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|---|---|---|
| 9 (A) | Identify causes of air, soil, and water pollution, including point and nonpoint sources. | Choosing to Consume (Climate) |
| 9 (B) | Investigate the types of air, soil, and water pollution such as chlorofluorocarbons, carbon dioxide, pH, pesticide runoff, thermal variations, metallic ions, heavy metals, and nuclear waste. | Choosing to Consume (Climate), Growing Pains (Earth) |
| 9 (C) | Examine the concentrations of air, soil, and water pollutants using appropriate units. | Growing Pains (Earth) |
| 9 (E) | Evaluate the effect of human activities, including habitat restoration projects, species preservation efforts, nature conservancy groups, hunting, fishing, ecotourism, all-terrain vehicles, and small personal watercraft, on the environment. | Choosing to Consume (Climate) |
| 9 (G) | Analyze how ethical beliefs can be used to influence scientific practices such as methods for increasing food production. | Choosing to Consume (Climate) |
| 9 (H) | Analyze and evaluate different views on the existence of global warming. | Choosing to Consume (Climate) |

**Geometry**

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| 10 (A) | Identify the shapes of two-dimensional cross-sections of prisms, pyramids, cylinders, cones and spheres, and identify three-dimensional objects generated by rotations of two-dimensional shapes. | Smaller is Savvier (Energy) |
| 10 (B) | Determine and describe how changes in the linear dimensions of a shape affect its perimeter, area, surface area or volume, including proportional and non-proportional dimensional change. | Smaller is Savvier (Energy) |

# TEKS INDEX

## World Geography

| | | |
|---|---|---|
| 23 (A) | Identify and analyze methods of expanding the right to participate in the democratic process, including lobbying, non-violent protesting, litigation and amendments to the U.S. Constitution. | Growing Pains (Earth) |
| 23 (B) | Evaluate various means of achieving equality of political rights, including the 19th, 24th and 26th amendments and congressional acts such as the American Indian Citizenship Act of 1924. | Growing Pains (Earth) |
| 23 (C) | Explain how participation in the democratic process reflects our national ethos, patriotism and civic responsibility as well as our progress to build a "more perfect union." | Growing Pains (Earth) |

## Sociology

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|---|---|---|
| 5 (D) | Examine counterculture movements and analyze their impact on society as a whole. | Smaller is Savvier (Energy) |

## US History

| | | |
|---|---|---|
| 14 (A) | Identify the effects of population growth and distribution on the physical environment. | Shedding the Traditional (Cities) |
| 14 (B) | Identify the roles of governmental entities and private citizens in managing the environment such as the establishment of the National Park System, the Environmental Protection Agency (EPA) and the Endangered Species Act. | Shedding the Traditional (Cities) |
| 14 (C) | Understand the effects of governmental actions on individuals, industries and communities, including the impact on Fifth Amendment property rights. | Shedding the Traditional (Cities) |

# TEKS INDEX

| | | |
|---|---|---|
| 30 (A) | Create written, oral, and visual presentations of social studies information. | Shedding the Traditional (Cities) |
| 30 (C) | Use different forms of media to convey information, including written to visual and statistical to written or visual, using available computer software as appropriate. | Shedding the Traditional (Cities) |
| 32 (A) | Use a problem-solving process 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. | Shedding the Traditional (Cities) |
| 32 (B) | Use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision. | Shedding the Traditional (Cities) |

**Government**

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|---|---|---|
| 8 (D) | Identify the purpose of selected independent executive agencies, including the National Aeronautics and Space Administration (NASA), and regulatory commissions, including the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), Food and Drug Administration (FDA), and Federal Communications Commission (FCC). | Choosing to Consume (Climate) |
| 18 (B) | Identify examples of government-assisted research that, when shared with the private sector, have resulted in improved consumer products such as computer and communication technologies. | Choosing to Consume (Climate) |
| 21 (D) | Create written, oral and visual presentations of social studies information. | Choosing to Consume (Climate) |

# TEKS INDEX

| | | |
|---|---|---|
| 22 (A) | Use a problem-solving process 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. | Choosing to Consume (Climate) |
| 22 (B) | Use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences and take action to implement a decision. | Choosing to Consume (Climate) |

## Art 1

| | | |
|---|---|---|
| 1 (A) | Consider concepts and ideas from direct observation, original sources, experiences and imagination for original artwork. | Growing Pains (Earth) |
| 1 (D) | Make judgments about the expressive properties such as content, meaning, message and metaphor of artwork using art vocabulary accurately. | Growing Pains (Earth) |
| 2 (A) | Use visual solutions to create original artwork by problem solving through direct observation, original sources, experiences, narrations and imagination. | Growing Pains (Earth) |
| 2 (B) | Communicate a variety of applications for design solutions. | Growing Pains (Earth) |
| 2 (D) | Create original artwork to communicate thoughts, feelings, ideas or impressions. | Growing Pains (Earth) |
| 2 (E) | Collaborate to create original works of art. | Growing Pains (Earth) |
| 3 (C) | Collaborate on community-based art projects. | Growing Pains (Earth) |

# TEKS INDEX

| | | |
|---|---|---|
| 4 (A) | Interpret, evaluate and justify artistic decisions in artwork by self, peers and other artists such as that in museums, local galleries, art exhibits and websites. | Growing Pains (Earth) |

**Art 2**

| | | |
|---|---|---|
| 1 (C) | Identify and apply the principles of design, including emphasis, repetition/pattern, movement/rhythm, contrast/variety, balance, proportion and unity in personal artworks. | Smaller is Savvier (Energy) |
| 2 (B) | Apply design skills in creating practical applications, clarifying presentations and examining consumer choices in order to make successful design decisions. | Smaller is Savvier (Energy) |
| 2 (F) | Select from a variety of art media and tools to communicate specific ideas in drawing, painting, printmaking, sculpture, ceramics, fiber art, jewelry, mixed media, photography, and digital art and media. | Smaller is Savvier (Energy) |
| 4 (A) | Interpret, evaluate and justify artistic decisions in artwork by self, peers and other artists such as that in museums, local galleries, art exhibits and websites. | Smaller is Savvier (Energy) |
| 4 (B) | Evaluate and analyze artwork using a method of critique such as describing the artwork, analyzing the way it is organized, interpreting the artist's intention and evaluating the success of the artwork. | Smaller is Savvier (Energy) |
| 4 (C) | Use responses to artwork critiques to make decisions about future directions in personal work. | Smaller is Savvier (Energy) |

# TEKS INDEX

## Art 3

| | | |
|---|---|---|
| 1 (B) | Compare and contrast the elements of art, including line, shape, color, texture, form, space and value, as the fundamentals of art in personal artwork. | Shedding the Traditional (Cities) |
| 1 (C) | Compare and contrast the principles of design, including emphasis, repetition/pattern, movement/rhythm, contrast/variety, balance, proportion and unity, in personal artwork. | Shedding the Traditional (Cities) |
| 1 (D) | Explore the suitability of art media and processes, and select those appropriate to express specific ideas such as content, meaning, message and metaphor relating to visual themes to interpret the expressive qualities of artwork. | Shedding the Traditional (Cities) |
| 2 (A) | Create original artwork using multiple solutions from direct observation, original sources, experiences and imagination in order to expand personal themes that demonstrate artistic intent. | Shedding the Traditional (Cities) |
| 2 (D) | Create original artwork to communicate thoughts, feelings, ideas or impressions. | Shedding the Traditional (Cities) |
| 2 (F) | Select from a variety of art media and tools to express intent in drawing, painting, printmaking, sculpture, ceramics, fiber art, design, digital art and media, photography, jewelry and mixed media. | Shedding the Traditional (Cities) |
| 3 (A) | Research selected historical periods, artists, general themes, trends and styles of art. | Shedding the Traditional (Cities) |
| 4 (B) | Evaluate and analyze artwork using a method of critique such as describing the artwork, analyzing the way it is organized, interpreting the artist's intention and evaluating the success of the artwork. | Shedding the Traditional (Cities) |

# TEKS INDEX

## Art 4

| | | |
|---|---|---|
| 1 (A) | Consider concepts and themes for personal artwork that integrate an extensive range of visual observations, experiences and imagination. | Choosing to Consume (Climate) |
| 1 (B) | Compare and contrast the elements of art, including line, shape, color, texture, form, space and value, as the fundamentals of art in personal artwork. | Choosing to Consume (Climate) |
| 1 (C) | Compare and contrast the principles of design, including emphasis, repetition/pattern, movement/rhythm, contrast/variety, balance, proportion and unity, in personal artwork. | Choosing to Consume (Climate) |
| 1 (D) | Discriminate between art media and processes to express complex visual relationships such as content, meaning, message and metaphor using extensive art vocabulary. | Choosing to Consume (Climate) |
| 2 (D) | Create original artwork to communicate thoughts, feelings, ideas or impressions. | Choosing to Consume (Climate) |
| 2 (E) | Collaborate to create original works of art. | Choosing to Consume (Climate) |
| 3 (B) | Analyze and evaluate the influence of contemporary cultures on artwork. | Choosing to Consume (Climate) |
| 4 (B) | Evaluate and analyze artwork using a method of critique such as describing the artwork, analyzing the way it is organized, interpreting the artist's intention and evaluating the success of the artwork. | Choosing to Consume (Climate) |
| 4 (C) | Analyze personal artwork in order to create a written response such as an artist's statement reflecting intent, inspiration, the elements of art and principles of design within the artwork, and the measure of uniqueness. | Choosing to Consume (Climate) |
| 4 (F) | Evaluate a wide range of artwork to form conclusions about formal qualities, aesthetics, historical and cultural contexts, intents and meanings. | Choosing to Consume (Climate) |