



Winter/Spring 2012      TEKS Alignment

## **Chapter 112: Science**

### Subchapter A: Elementary Science

#### **§112.11      Kindergarten Knowledge and Skills**

b.9      Organisms and environments - plants and animals have basic needs and depend on the living and nonliving things around them for survival. The student will differentiate between living and nonliving things based upon whether they have basic needs and produce offspring.

b.10     Organisms and environments - organisms resemble their parents and have structures and processes that help them survive within their environments.

#### **§112.12      Grade 1 Knowledge and Skills**

b.3      Scientific investigation and reasoning - information and critical thinking are used in scientific problem solving. The student will describe what scientists (paleontologists) do.

b.9      Organisms and environments - plants and animals have basic needs and depend on the living and nonliving things around them for survival. The student will differentiate between living and nonliving things based upon whether they have basic needs and produce offspring.

b.10     Organisms and environments - organisms resemble their parents and have structures and processes that help them survive within their environments.

#### **§112.13      Grade 2 Knowledge and Skills**

b.9      Organisms and environments - living organisms have basic needs that must be met for them to survive within their environment. The student will compare and give examples of food chains.

b.10     Organisms and environments - organisms resemble their parents and have structures and processes that help them survive within their environments.

#### **§112.14      Grade 3 Knowledge and Skills**

b.3      Scientific investigation and reasoning - information, critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. In paleontology, students will analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence; and connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists (paleontologists).

b.7      Earth and space - Earth's surface is constantly changing. The student will investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides.

b.9      Organisms and environments - organisms have characteristics that help them survive and can describe patterns, cycles, systems, and relationships within the environments. The student will identify a food chain and predict how changes in a food chain affect the ecosystem; and describe environmental changes where some organisms thrive and others perish or move to new locations.



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**§112.15 Grade 4 Knowledge and Skills**

b.3 Scientific investigation and reasoning - information, critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. In paleontology, students will analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence; and connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists (paleontologists).

b.7 Earth and space - Earth consists of useful resources and its surface is constantly changing. The student will identify slow and rapid changes to Earth's surface over the millennia.

b.9 Organisms and environments - living organisms within an ecosystem interact with one another and with their environment. The student will understand the flow of energy through food webs and predict how changes in the ecosystem affect the food web.

**§112.16 Grade 5 Knowledge and Skills**

b.3 Scientific investigation and reasoning - information, critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. In paleontology, students will analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence; and connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists (paleontologists).

b.7 Earth and space - Earth's surface is constantly changing and consists of useful resources. The student will identify fossils as evidence of past living organisms and the nature of the environments at the time using models.

b.9 Organisms and environments - that living organisms within an ecosystem interact with one another and with their environment. The student will understand the flow of energy through food webs and predict how changes in the ecosystem affect the food web.

Subchapter B: Middle School Science

**§112.18 Grade 6 Knowledge and Skills**

b.3 Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists (paleontologists). The student will relate the impact of research on scientific thought.

b.10 Earth and space. The student understands the structure of Earth, the rock cycle, and plate tectonics. The student will describe how plate tectonics causes major geological events in Earth's history.

b.12 Organisms and environments. The student knows all organisms are classified into Domains and Kingdoms. Organisms within these taxonomic groups share similar characteristics which allow them to interact with the living and nonliving parts of their ecosystem.



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**§112.19 Grade 7 Knowledge and Skills**

b.3 Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists (paleontologists). The student will relate the impact of research on scientific thought.

b.11 Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student will identify some changes in genetic traits that have occurred in SuperCroc over many generations until modern Crocodilians.

**§112.20 Grade 8 Knowledge and Skills**

b.3 Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists (paleontologists). The student will relate the impact of research on scientific thought.

b.9 Earth and space. The student knows that natural events can impact Earth systems. The student will describe the historical development of evidence that supports plate tectonic theory.

Subchapter C: High School Science

**§112.34 Biology Knowledge and Skills**

b.1 In a [simulated] field investigation, students will explore and use critical thinking and scientific problem solving. Students will see topics that include biological evolution; taxonomy; and ecosystems and the environment.

**§112.36 Earth and Space Science Knowledge and Skills**

b.5 ESS themes in this exhibit: Earth in space and time

b.6 ESS strands in this exhibit: Relevance



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## **Chapter 113: Social Studies**

### Subchapter A: Elementary Social Studies

#### **§113.11      Kindergarten Knowledge and Skills**

b.3      History. The student understands the concepts of time and chronology. The student will distinguish among past, present, and future.

b.4      Geography. The student understands the relative location of places. The student will describe the location of self and objects relative to other locations in the classroom and school.

#### **§113.12      Grade 1 Knowledge and Skills**

b.3      History. The student understands the concepts of time and chronology. The student will distinguish among past, present, and future.

b.4      Geography. The student understands the relative location of places. The student will describe the location of self and objects relative to other locations in the classroom and school.

#### **§113.13      Grade 2 Knowledge and Skills**

b.2      History. The student understands the concepts of time and chronology. The student will describe the order of events by using designations of time periods such as pre-historic, historical and present times.

b.5      Geography. The student uses simple geographic tools such as maps and globes. The student will interpret information on maps and globes using basic map elements.

b.18     Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student will obtain information about a topic using a variety of valid oral sources such as conversations, interviews, and music; and obtain information about a topic using a variety of valid visual sources such as pictures, maps, electronic sources, literature, reference sources, and artifacts.

#### **§113.14      Grade 3 Knowledge and Skills**

b.3      History. The student understands the concepts of time and chronology. The student will use vocabulary related to chronology like pre-historic, past, present, and future.

b.5      Geography. The student understands the concepts of location, distance, and direction on maps and globes. The student will be able to locate El Paso on a map.



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b.17 Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student will obtain information about a topic using a variety of valid oral sources such as conversations, interviews, and music; and obtain information about a topic using a variety of valid visual sources such as pictures, maps, electronic sources, literature, reference sources, and artifacts.

### **§113.15      Grade 4 Knowledge and Skills**

b.7 Geography. The student understands the concept of regions. The student will identify, locate, and compare the geographic regions of Texas including their current landforms, climate, and vegetation with their pre-historic counterparts.

b.21 Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student will view primary and secondary sources such as audio-visual material; documents; and artifacts to acquire information.

### **§113.16      Grade 5 Knowledge and Skills**

b.24 Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student will view primary and secondary sources such as audio-visual material; documents; and artifacts to acquire information.

## Subchapter B: Middle School Social Studies

### **§113.18      Grade 6 Social Studies**

a.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 artworks and artifacts is encouraged. Motivating resources are available from museums, art galleries, and historical sites.

b.21 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. The student will see artifacts to acquire information.

### **§113.19      Grade 7 Social Studies**

a.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 artworks and artifacts is encouraged. Motivating resources are available from museums, art galleries, and historical sites.



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b.21 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. The student will see artifacts to acquire information.

**§113.20      Grade 8 Social Studies**

a.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 artworks and artifacts is encouraged. Motivating resources are available from museums, art galleries, and historical sites.

b.29 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. The student will see artifacts to acquire information.

Subchapter C: High School Social Studies

**§113.55      Advanced Placement World History**

**§113.60      International Baccalaureate History, Standard Level**

**§113.65      International Baccalaureate Geography, Standard Level**