Super Big Telescope Tour

K-12 science TEKS, adopted 2017

Kindergarten

112.11 (b) Knowledge and Skills

(2) Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:

(A) ask questions about organisms, objects, and events observed in the natural world;

(E) communicate observations about simple descriptive investigations.

(3) Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:

(C) explore that scientists investigate different things in the natural world and use tools to help in their investigations.

(6) Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life. The student is expected to:

(A) use the senses to explore different forms of energy such as light, thermal, and sound

Grade 1

112.12 (b) Knowledge and Skills

(2) Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:

(A) ask questions about organisms, objects, and events observed in the natural world;

(E) communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations.

(3) Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:

(C) describe what scientists do.

(6) Force, motion, and energy. The student knows that force, motion, and energy are related and are a part of everyday life. The student is expected to:

(A) identify and discuss how different forms of energy such as light, thermal, and sound are important to everyday life.

Grade 2
112.13 (b) Knowledge and Skills

(3) Scientific investigation and reasoning. The student knows that information and critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. The student is expected to:

(C) identify what a scientist is and explore what different scientists do.

(6) Force, motion, and energy. The student knows that forces cause change and energy exists in many forms. The student is expected to:

(A) investigate the effects on objects by increasing or decreasing amounts of light, heat, and sound energy such as how the color of an object appears different in dimmer light or how heat melts butter;

(8) Earth and space. The student knows that there are recognizable patterns in the natural world and among objects in the sky. The student is expected to:

(B) identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation.

Grade 3
112.14 (b) Knowledge and Skills

(3) Scientific investigation and reasoning. The student knows that information, critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. The student is expected to:

(C) connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists.

(6) Force, motion, and energy. The student knows that forces cause change and that energy exists in many forms. The student is expected to:

(A) explore different forms of energy, including mechanical, light, sound, and thermal in everyday life;

Grade 4
112.15 (b) Knowledge and Skills

(3) Scientific investigation and reasoning. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:

(C) connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists.

(6) Force, motion, and energy. The student knows that energy exists in many forms and can be observed in cycles, patterns, and systems. The student is expected to:

(A) differentiate among forms of energy, including mechanical, sound, electrical, light, and thermal.

Grade 5
112.16 (b) Knowledge and Skills

(3) Scientific investigation and reasoning. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:

(C) connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists.

(6) Force, motion, and energy. The student knows that energy exists in many forms and can be observed in cycles, patterns, and systems. The student is expected to:

(A) differentiate among forms of energy, including mechanical, sound, electrical, light, and thermal.

Grade 6
112.18 (b) Knowledge and Skills

(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. The student is expected to:

(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.

Grade 7
112.19 (b) Knowledge and Skills

(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. The student is expected to:

(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.

Grade 8
112.20 (b) Knowledge and Skills

(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. The student is expected to:

(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.

Grades 9-12 Astronomy

112.33 (b) Knowledge and Skills

(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:

(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student;

(B) communicate and apply scientific information extracted from various sources such as current events, news reports, published journal articles, and marketing materials;

(C) draw inferences based on data related to promotional materials for products and services;

(D) evaluate the impact of research on scientific thought, society, and the environment;

(E) describe the connection between astronomy and future careers.

(14) Science concepts. The student recognizes the benefits and challenges of space exploration to the study of the universe. The student is expected to:

(C) analyze the importance of ground-based technology in astronomical studies;

(E) demonstrate an awareness of new developments and discoveries in astronomy.