

TEKS For Field Trip Activities

Grades K-4

Harris Creek Trail Scavenger Hunt

Grades K – 4

TEKS

Grade 3

§112.5. Science, Grade 3, Adopted 2021.

(b) Knowledge and skills.

(1) Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

(A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;

(B) use scientific practices to plan and conduct descriptive investigations and use engineering practices to design solutions to problems;

(C) demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards;

(D) use tools, including hand lenses; metric rulers; Celsius thermometers; wind vanes; rain gauges; graduated cylinders; beakers; digital scales; hot plates; meter sticks; magnets; notebooks; Sun, Earth, Moon system models; timing devices; materials to support observation of habitats of organisms such as terrariums, aquariums, and collecting nets; and materials to support digital data collection such as computers, tablets, and cameras, to observe, measure, test, and analyze information;

(E) collect observations and measurements as evidence;

(F) construct appropriate graphic organizers to collect data, including tables, bar graphs, line graphs, tree maps, concept maps, Venn diagrams, flow charts or sequence maps, and input-output tables that show cause and effect; and

(G) develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem.

(5) Recurring themes and concepts. The student understands that recurring themes and concepts provide a framework for making connections across disciplines. The student is expected to:

(A) identify and use patterns to explain scientific phenomena or to design solutions;

(B) identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems;

(C) use scale, proportion, and quantity to describe, compare, or model different systems;

(D) examine and model the parts of a system and their interdependence in the function of the system;

(10) Earth and space. The student knows that there are recognizable processes that change Earth over time. The student is expected to:

(A) compare and describe day-to-day weather in different locations at the same time, including air temperature, wind direction, and precipitation;

(B) investigate and explain how soils such as sand and clay are formed by weathering of rock and by decomposition of plant and animal remains; and

(C) model and describe rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides.

(11) Earth and space. The student understands how natural resources are important and can be managed. The student is expected to:

(A) explore and explain how humans use natural resources such as in construction, in agriculture, in transportation, and to make products;

(B) explain why the conservation of natural resources is important; and

(C) identify ways to conserve natural resources through reducing, reusing, or recycling.

(12) Organisms and environments. The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:

(A) explain how temperature and precipitation affect animal growth and behavior through migration and hibernation and plant responses through dormancy;

(B) identify and describe the flow of energy in a food chain and predict how changes in a food chain such as removal of frogs from a pond or bees from a field affect the ecosystem;

(C) describe how natural changes to the environment such as floods and droughts cause some organisms to thrive and others to perish or move to new locations; and

(D) identify fossils as evidence of past living organisms and environments, including common Texas fossils.

(13) Organisms and environments. The student knows that organisms undergo similar life processes and have structures that function to help them survive within their environments. The student is expected to:

(A) explore and explain how external structures and functions of animals such as the neck of a giraffe or webbed feet on a duck enable them to survive in their environment; and

(B) explore, illustrate, and compare life cycles in organisms such as beetles, crickets, radishes, or lima beans.

Healthy Habits

Grades K - 4

TEKS

Grade 3

§112.5. Science, Grade 3, Adopted 2021.

(b) Knowledge and skills.

(1) Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

(A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;

(B) use scientific practices to plan and conduct descriptive investigations and use engineering practices to design solutions to problems;

(C) demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards;

(D) use tools, including hand lenses; metric rulers; Celsius thermometers; wind vanes; rain gauges; graduated cylinders; beakers; digital scales; hot plates; meter sticks; magnets; notebooks; Sun, Earth, Moon system models; timing devices; materials to support observation of habitats of organisms such as terrariums, aquariums, and collecting nets; and materials to support digital data collection such as computers, tablets, and cameras, to observe, measure, test, and analyze information;

(E) collect observations and measurements as evidence;

(F) construct appropriate graphic organizers to collect data, including tables, bar graphs, line graphs, tree maps, concept maps, Venn diagrams, flow charts or sequence maps, and input-output tables that show cause and effect; and

(G) develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem.

(2) Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:

(A) identify advantages and limitations of models such as their size, scale, properties, and materials;

(B) analyze data by identifying any significant features, patterns, or sources of error;

(3) Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:

(B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats; and

(C) listen actively to others' explanations to identify relevant evidence and engage respectfully in scientific discussion.

(5) Recurring themes and concepts. The student understands that recurring themes and concepts provide a framework for making connections across disciplines. The student is expected to:

(A) identify and use patterns to explain scientific phenomena or to design solutions;

(B) identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems;

(C) use scale, proportion, and quantity to describe, compare, or model different systems;

(D) examine and model the parts of a system and their interdependence in the function of the system;

(E) investigate the flow of energy and cycling of matter through systems;

(F) explain the relationship between the structure and function of objects, organisms, and systems; and

(G) explain how factors or conditions impact stability and change in objects, organisms, and systems.

(10) Earth and space. The student knows that there are recognizable processes that change Earth over time. The student is expected to:

(A) compare and describe day-to-day weather in different locations at the same time, including air temperature, wind direction, and precipitation;

(11) Earth and space. The student understands how natural resources are important and can be managed. The student is expected to:

(A) explore and explain how humans use natural resources such as in construction, in

agriculture, in transportation, and to make products;

(B) explain why the conservation of natural resources is important; and

(C) identify ways to conserve natural resources through reducing, reusing, or recycling.

(12) Organisms and environments. The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:

(A) explain how temperature and precipitation affect animal growth and behavior through migration and hibernation and plant responses through dormancy;

(B) identify and describe the flow of energy in a food chain and predict how changes in a food chain such as removal of frogs from a pond or bees from a field affect the ecosystem; (C) describe how natural changes to the environment such as floods and droughts cause some organisms to thrive and others to perish or move to new locations;

(13) Organisms and environments. The student knows that organisms undergo similar life processes and have structures that function to help them survive within their environments. The student is expected to:

(A) explore and explain how external structures and functions of animals such as the neck of a giraffe or webbed feet on a duck enable them to survive in their environment; and

(B) explore, illustrate, and compare life cycles in organisms such as beetles, crickets, radishes, or lima beans.

Monarch Migration

Grades K - 4

TEKS

Grade 3

§110.5. English Language Arts and Reading, Grade 3, Adopted 2017.,
The provisions of this §110.5 adopted to be effective September 25, 2017, 42 TexReg 4999; amended to be effective August 1, 2019, 44 TexReg 3835.

(b) Knowledge and skills.

(1) Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

(A) listen actively, ask relevant questions to clarify information, and make pertinent comments;

(B) follow, restate, and give oral instructions that involve a series of related sequences of action;

(C) express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and

(D) work collaboratively with others to develop a plan of shared responsibilities.

(3) Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:

(B) use context within and beyond a sentence to determine the relevant meaning of unfamiliar words or multiple-meaning words;

(5) Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--self-sustained reading. The student reads grade-appropriate texts

independently. The student is expected to self-select text and read independently for a sustained period of time.

(13) Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:

(A) generate and clarify questions on a topic for formal and informal inquiry;

Grade 3

§113.14. Social Studies, Grade 3, Adopted 2018

(3) Geography. The student understands how humans adapt to and/or modify the physical environment. The student is expected to:

(A) describe similarities and differences in the physical environment, including climate, landforms, natural resources, and natural hazards;

(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; and

(4) Geography. The student understands the concepts of location, distance, and direction on maps and globes. The student is expected to:

(A) use cardinal and intermediate directions to locate places on maps and globes in relation to the local community;

(B) use a scale to determine the distance between places on maps and globes; and

(C) identify, create, and interpret maps of places that contain map elements, including a title, compass rose, legend, scale, and grid system.

(14) 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:

(A) gather information, including historical and current events and geographic data, about the community using a variety of resources;

(B) interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, distinguishing between fact and opinion, identifying cause and effect, comparing, and contrasting; and

(D) interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps.

(16) 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.

Grade 3

§112.5. Science, Grade 3, Adopted 2021.

(b) Knowledge and skills.

(1) Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

(A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;

(B) use scientific practices to plan and conduct descriptive investigations and use engineering practices to design solutions to problems;

(C) demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards;

(D) use tools, including hand lenses; metric rulers; Celsius thermometers; wind vanes; rain gauges; graduated cylinders; beakers; digital scales; hot plates; meter sticks; magnets; notebooks; Sun, Earth, Moon system models; timing devices; materials to support observation of habitats of organisms such as terrariums, aquariums, and collecting nets; and materials to support digital data collection such as computers, tablets, and cameras, to observe, measure, test, and analyze information;

(E) collect observations and measurements as evidence;

(F) construct appropriate graphic organizers to collect data, including tables, bar graphs, line graphs, tree maps, concept maps, Venn diagrams, flow charts or sequence maps, and input-output tables that show cause and effect; and

(G) develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem.

(2) Scientific and engineering practices. The student analyzes and interprets data to derive

meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:

(A) identify advantages and limitations of models such as their size, scale, properties, and materials;

(B) analyze data by identifying any significant features, patterns, or sources of error;

(3) Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:

(B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats; and

(C) listen actively to others' explanations to identify relevant evidence and engage respectfully in scientific discussion.

(5) Recurring themes and concepts. The student understands that recurring themes and concepts provide a framework for making connections across disciplines. The student is expected to:

(A) identify and use patterns to explain scientific phenomena or to design solutions;

(B) identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems;

(C) use scale, proportion, and quantity to describe, compare, or model different systems;

(D) examine and model the parts of a system and their interdependence in the function of the system;

(E) investigate the flow of energy and cycling of matter through systems;

(F) explain the relationship between the structure and function of objects, organisms, and systems; and

(G) explain how factors or conditions impact stability and change in objects, organisms, and systems.

(10) Earth and space. The student knows that there are recognizable processes that change Earth over time. The student is expected to:

(C) compare and describe day-to-day weather in different locations at the same time, including air temperature, wind direction, and precipitation;

(11) Earth and space. The student understands how natural resources are important and can be managed. The student is expected to:

- (A) explore and explain how humans use natural resources such as in construction, in agriculture, in transportation, and to make products;
- (B) explain why the conservation of natural resources is important; and
- (C) identify ways to conserve natural resources through reducing, reusing, or recycling.

(12) Organisms and environments. The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:

- (A) explain how temperature and precipitation affect animal growth and behavior through migration and hibernation and plant responses through dormancy;
- (D) identify and describe the flow of energy in a food chain and predict how changes in a food chain such as removal of frogs from a pond or bees from a field affect the ecosystem; (C) describe how natural changes to the environment such as floods and droughts cause some organisms to thrive and others to perish or move to new locations;

(13) Organisms and environments. The student knows that organisms undergo similar life processes and have structures that function to help them survive within their environments. The student is expected to:

- (A) explore and explain how external structures and functions of animals such as the neck of a giraffe or webbed feet on a duck enable them to survive in their environment; and
- (B) explore, illustrate, and compare life cycles in organisms such as beetles, crickets, radishes, or lima beans.

Gravity Grasshoppers

Grades K – 4

Gravity Grasshoppers

TEKS Correlations

2nd Grade

Science:

(b) Knowledge and skills.

(1) Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models.

The student is expected to:

(A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;

(B) use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems;

(C) identify, describe, and demonstrate safe practices during classroom and field investigations as outlined in Texas Education Agency-approved safety standards;

(D) use tools, including hand lenses, goggles, heat-resistant gloves, trays, cups, bowls, beakers, notebooks, stream tables, soil, sand, gravel, flowering plants, student thermometer, demonstration thermometer, rain gauge, flashlights, ramps, balls, spinning tops, drums, tuning forks, sandpaper, wax paper, items that are flexible, non-flexible items, magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and frog and butterfly life cycle models to observe, measure, test, and compare;

(E) collect observations and measurements as evidence;

(F) record and organize data using pictures, numbers, words, symbols, and simple graphs;

(G) develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem.

(2) Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:

(A) identify basic advantages and limitations of models such as their size, properties, and materials;

(B) analyze data by identifying significant features and patterns;

- (5) Recurring themes and concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
- (A) identify and use patterns to describe phenomena or design solutions;
 - (B) investigate and predict cause-and-effect relationships in science;
 - (C) measure and describe the properties of objects in terms of size and quantity;
 - (D) examine the parts of a whole to define or model a system;

(12) Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:

- (A) describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem;
- (B) create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things;

(13) Organisms and environments. The student knows that organisms have structures and undergo processes that help them interact and survive within their environments. The student is expected to:

- (B) record and compare how the structures and behaviors of animals help them find and take in food, water, and air;
- (C) record and compare how being part of a group helps animals obtain food, defend themselves, and cope with changes; and
- (D) investigate and describe some of the unique life cycles of animals where young animals do not resemble their parents, including butterflies and frogs.

Gravity Grasshoppers

TEKS Correlations

3rd Grade Adopted 2021

Science:

(b) Knowledge and skills.

(1) Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models.

The student is expected to:

- (A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
- (B) use scientific practices to plan and conduct descriptive investigations and use engineering practices to design solutions to problems;
- (C) demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards;

(D) use tools, including hand lenses; metric rulers; Celsius thermometers; wind vanes; rain gauges; graduated cylinders; beakers; digital scales; hot plates; meter sticks; magnets; notebooks; Sun, Earth, Moon system models; timing devices; materials to support observation of habitats of organisms such as terrariums, aquariums, and collecting nets; and materials to support digital data collection such as computers, tablets, and cameras, to observe, measure, test, and analyze information;

(E) collect observations and measurements as evidence;

(F) construct appropriate graphic organizers to collect data, including tables, bar graphs, line graphs, tree maps, concept maps, Venn diagrams, flow charts or sequence maps, and input-output tables that show cause and effect;

(2) Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:

(A) identify advantages and limitations of models such as their size, scale, properties, and materials;

(B) analyze data by identifying any significant features, patterns, or sources of error;

(5) Recurring themes and concepts. The student understands that recurring themes and concepts provide a framework for making connections across disciplines. The student is expected to:

(A) identify and use patterns to explain scientific phenomena or to design solutions;

(B) identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems;

(C) use scale, proportion, and quantity to describe, compare, or model different systems;

(D) examine and model the parts of a system and their interdependence in the function of the system;

(11) Earth and space. The student understands how natural resources are important and can be managed. The student is expected to:

(A) explore and explain how humans use natural resources such as in construction, in agriculture, in transportation, and to make products;

(B) explain why the conservation of natural resources is important;

(12) Organisms and environments. The student describes patterns, cycles, systems, and relationship within environments. The student is expected to:

(A) explain how temperature and precipitation affect animal growth and behavior through migration and hibernation and plant responses through dormancy;

(B) identify and describe the flow of energy in a food chain and predict how changes in a food chain such as removal of frogs from a pond or bees from a field affect the ecosystem;

(C) describe how natural changes to the environment such as floods and droughts cause some organisms to thrive and others to perish or move to new locations;

(13) Organisms and environments. The student knows that organisms undergo similar life process and have structures that function to help them survive within their environments.

The student is expected to:

(A) explore and explain how external structures and functions of animals such as the neck of a giraffe or webbed feet on a duck enable them to survive in their environment; and

(B) explore, illustrate, and compare life cycles in organisms such as beetles, crickets, radishes, or lima beans.

English Language Arts

(b) Knowledge and skills.

(1) Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

(A) listen actively, ask relevant questions to clarify information, and make pertinent comments;

(B) follow, restate, and give oral instructions that involve a series of related sequences of action;

(C) speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;

(D) work collaboratively with others by following agreed-upon rules, norms, and protocols; and

(E) develop social communication such as conversing politely in all situations.

(9) Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:

(A) demonstrate knowledge of distinguishing characteristics of well-known children's literature such as folktales, fables, fairy tales, legends, and myths;

(B) explain rhyme scheme, sound devices, and structural elements such as stanzas in a variety of poems;

(D) recognize characteristics and structures of informational text, including:

(i) the central idea with supporting evidence;

(ii) features such as sections, tables, graphs, timelines, bullets, numbers, and bold and italicized font to support understanding; and

(iii) organizational patterns such as cause and effect and problem and solution;

(13) Inquiry and research: listening, speaking, reading, writing, and thinking using

multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:

(A) generate questions on a topic for formal and informal inquiry;