Inquiry Skills	Grade 6 TEKS Links
1. Students set up a new, appropriate problem/application	2(A) plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting and using equipment and technology.
2. Pose relevant questions and develop hypotheses	2(A) plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting and using equipment and technology.
3. Make and test predictions	
4. Observations and measurements are accurate and appropriate	2(B) collect data by observing and measuring. 4(A) collect, analyze, and record information using tools including beakers, petri dishes, meter sticks, graduated cylinders, weather instruments, timing devices, hot plates, test tubes, safety goggles, spring scales, magnets, balances, microscopes, telescopes, thermometers, calculators, field equipment, compasses, computers, and computer probes.
5. Equipment is used properly with appropriate safety procedures	1(A) demonstrate safe practices during field and laboratory investigations.
6. Quality assurance procedures are employed (multiple, repeated readings; recalibration) and measurement errors are detected	
7. Specify measurements and variables	
8. Identify similarities and differences	
9. Explain reasons for differences	
10. Use appropriate mathematical procedures	4(B) identify patterns in collected information using percent, average, range, and frequency. 2(E) construct graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate data.
11. Infer patterns and trends	3(B) draw inferences based on data related to promotional materials for products and services. 4(B) identify patterns in collected information using percent, average, range, and frequency.
12. Explain data and relationships using evidence	2(C) analyze and interpret information to construct reasonable explanations from direct and indirect evidence.
13. Collect and organize data	2(B) collect data by observing and measuring. 4(A) collect, analyze, and record information using tools including beakers, petri dishes, meter sticks, graduated cylinders, weather instruments, timing devices, hot plates, test tubes, safety goggles, spring scales, magnets, balances, microscopes, telescopes, thermometers, calculators, field equipment, compasses, computers, and computer probes.
14. Use multiple forms to represent data	2(E) construct graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate data.
15. Use models and simulations	3(C) represent the natural world using models and identify their limitations.
16. Communicate findings	2(D) communicate valid conclusions.

GLOBE ATMOSPHERE Science Concepts	Grade 6 Direct TEKS Link*	Grade 6 InDirect TEKS Link*
1. The atmosphere has observable and/or measurable characteristics.	2(B) collect data by observing and measuring	14(C) describe components of the atmosphere, including oxygen, nitrogen, and water vapor, and identify the role of atmospheric movement in weather change
2. Clouds can be categorized by observable features.	2(B) collect data by observing and measuring	14(C) describe components of the atmosphere, including oxygen, nitrogen, and water vapor, and identify the role of atmospheric movement in weather change
3. Cloud cover and wind can affect atmospheric measurements.		14(C) describe components of the atmosphere, including oxygen, nitrogen, and water vapor, and identify the role of atmospheric movement in weather change
4. Cloud types can be associated with certain weather patterns and used to predict the weather.	14(C) describe components of the atmosphere, including oxygen, nitrogen, and water vapor, and identify the role of atmospheric movement in weather change	
5. pH is a characteristic property that can be measured.	2(B) collect data by observing and measuring 7(B) classify substances by their physical and chemical properties	
6. Heat energy transfers through radiation, conduction, and convection.		8 (A) define matter and energy 9 (A) identify energy transformations occurring during the production of energy for human use such as electrical energy to heat energy or heat energy to electrical energy
7. Substances transfer heat energy at different rates.	7(B) classify substances by their physical and chemical properties	9 (A) identify energy transformations occurring during the production of energy for human use such as electrical energy to heat energy or heat energy to electrical energy
8. Some materials are good conductors of heat energy; some are good insulators of heat energy.	7(B) classify substances by their physical and chemical properties	9 (A) identify energy transformations occurring during the production of energy for human use such as electrical energy to heat energy or heat energy to electrical energy
9. The transfer of heat energy affects temperature.		7(B) classify substances by their physical and chemical properties
10. Substances expand and contract as the temperature changes.		7(B) classify substances by their physical and chemical properties
11. Classification helps to organize and understand the natural world.		

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Atmosphere Enrichment Concepts	Grade 6 Direct TEKS Link*	Grade 6 InDirect TEKS Link*
1. Water has the unique property of expansion when changing from a liquid to a solid state.		7(B) classify substances by their physical and chemical properties 8(B) explain and illustrate the interactions between matter and energy in the water cycle and in the decay of biomass such as in a compost bin

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GLOBE HYDROLOGY Science Concepts	Grade 6 Direct TEKS Link*	Grade 6 InDirect TEKS Link*
1. Surface water exists in many forms and has observable and/or measurable characteristics.	2(B) collect data by observing and measuring 7(B) classify substances by their physical and chemical properties 14(B) identify relationships between groundwater and surface water in a watershed	
2. Surface water characteristics are related to the characteristics of the surrounding environment.	5(B) describe how the properties of a system are different from the properties of its parts 7(B) classify substances by their physical and chemical properties 14(B) identify relationships between groundwater and surface water in a watershed	
3. A watershed guides water to a common watercourse.	14(B) identify relationships between groundwater and surface water in a watershed	
4. Watershed characteristics are related to the physical features of the land.	5(A) identify and describe a system that results from the combination of two or more systems such as in the solar system 5(B) describe how the properties of a system are different from the properties of its parts 14(B) identify relationships between groundwater and surface water in a watershed	
5. The physical environment affects an organism's response patterns; organisms adapt and survive, move, or die.	12(B) identify responses in organisms to external stimuli such as the presence or absence of heat or light 12(C) identify components of an ecosystem to which organisms may respond	12(A) identify responses in organisms to internal stimuli such as hunger or thirst
6. pH is a characteristic property that can be measured.	2(B) collect data by observing and measuring 7(B) classify substances by their physical and chemical properties	
7. Classification helps to organize and understand the natural world.		

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Hydrology Enrichment Concepts	Grade 6 Direct TEKS Link*	Grade 6 InDirect TEKS Link*
1. Macro-invertebrates are sensitive indicators of water quality.	12(B) identify responses in organisms to external stimuli such as the presence or absence of heat or light 12(C) identify components of an ecosystem to which organisms may respond	
2. Topographical maps provide 3-dimensional information about the land.	3(C) represent the natural world using models and identify their limitations	

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GLOBE SOILS Science Concepts	Grade 6 Direct TEKS Link*	Grade 6 InDirect TEKS Link*
1. Soil has observable and/or measurable properties that change with time and location.	2(B) collect data by observing and measuring	
2. The interaction of organisms, climate, parent material, topography, and time affect soil properties.	5(A) identify and describe a system that results from the combination of two or more systems such as in the solar system 5(B) describe how the properties of a system are different from the properties of its parts	6(C) identify forces that shape features of the Earth including uplifting, movement of water, and volcanic activity 14(A) summarize the rock cycle
3. Soil acts as an insulating layer, creating a measurable temperature gradient.	2(B) collect data by observing and measuring	
4. Environmental conditions affect the rate of decomposition in soil.	8(B) explain and illustrate the interactions between matter and energy in the water cycle and in the decay of biomass such as in a compost bin 12(B) identify responses in organisms to external stimuli such as the presence or absence of heat or light; 12(C) identify components of an ecosystem to which organisms may respond	
5. The chemical and physical properties of soils make different soils useful in different ways.		7(B) classify substances by their physical and chemical properties
6. pH is a characteristic property that can be measured.	2(B) collect data by observing and measuring 7(B) classify substances by their physical and chemical properties	
7. Classification helps to organize and understand the natural world.		

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Soils Enrichment Concepts:	Grade 6 Direct TEKS Link*	Grade 6 InDirect TEKS Link*
1. There are 12 soil textures representing different amounts of sand-, silt-, and clay-sized particles.	2(B) collect data by observing and measuring 5(B) describe how the properties of a system are different from the properties of its parts 7(B) classify substances by their physical and chemical properties	14(A) summarize the rock cycle
2. A soil profile can be classified according to its properties, such as horizon, color, structure, consistency, texture, root and rock distribution, density, pH, carbonates, and fertility.	2(B) collect data by observing and measuring 5(B) describe how the properties of a system are different from the properties of its parts 7(B) classify substances by their physical and chemical properties	
3. Infiltration is the rate at which water flows into the ground; the rate changes depending on the level of soil saturation, soil texture and structure, and land cover.	2(B) collect data by observing and measuring 5(A) identify and describe a system that results from the combination of two or more systems such as in the solar system 5(B) describe how the properties of a system are different from the properties of its parts 6(C) identify forces that shape features of the Earth including uplifting, movement of water, and volcanic activity	

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GLOBE LAND COVER Science Concepts	Grade 6 Direct TEKS Link*	Grade 6 InDirect TEKS Link*
1. A GLOBE Study Site has observable and/or measurable characteristics.	2(B) collect data by observing and measuring	
2. A GLOBE Study Site represents a system with boundaries, and is a subset of the earth system.	5(A) identify and describe a system that results from the combination of two or more systems such as in the solar system	
3. Earth's land surface is covered by a variety of naturally occurring vegetated ecosystems.	5(A) identify and describe a system that results from the combination of two or more systems such as in the solar system	12(B) identify responses in organisms to external stimuli such as the presence or absence of heat or light
4. The physical environment affects an organism's response patterns; organisms adapt and survive, move, or die.	12(A) identify responses in organisms to internal stimuli such as hunger or thirst 12(B) identify responses in organisms to external stimuli such as the presence or absence of heat or light 12(C) identify components of an ecosystem to which organisms may respond	
5. The magnetic needle of a compass is attracted to Earth's Magnetic North and to some metal objects that are nearby.	7(B) classify substances by their physical and chemical properties	
6. Classification helps to organize and understand the natural world.		

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Land Cover Enrichment Concepts	Grade 6 Direct TEKS Link*	Grade 6 InDirect TEKS Link*
1. Remote sensing is a technique used to create visual representations of data.	3(C) represent the natural world using models and identify their limitations	
2. Image display is accomplished by conversion of stored data to a user-defined coded scheme and creating an image based on differences in measurement.	3(C) represent the natural world using models and identify their limitations	
3. Student remote sensing involves observations made without the use of touch (i.e., using eyes, ears, nose and skin surface).	3(C) represent the natural world using models and identify their limitations	

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GLOBE Seasons Science Concepts	Grade 6 Direct TEKS Link*
1. Seasonal changes can be observed.	2(B) collect data by observing and measuring
2. Seasonal changes follow an annual cycle. The magnitude of these changes varies from year to year.	
3. Seasonal patterns differ based on geographic location.	
4. Earth has many climate zones.	5(A) identify and describe a system that results from the combination of two or more systems such as in the solar system
5. Classification helps to organize and understand the natural world.	
Seasons Enrichment Concepts	Grade 6 Direct TEKS Link*
1. Bud-break is the period when leaf buds appear and grow.	12(B) identify responses in organisms to external stimuli such as the presence or absence of heat or light 12(C) identify components of an ecosystem to which organisms may respond
2. Senescence is the period when actively growing plant material dies.	12(B) identify responses in organisms to external stimuli such as the presence or absence of heat or light 12(C) identify components of an ecosystem to which organisms may respond

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GLOBE GPS Science Concepts	Grade 6 Direct TEKS Link*	Grade 6 InDirect TEKS Link*
1. The amount of sunlight that falls directly at a particular site on Earth varies throughout the year.		13(A) identify characteristics of objects in our solar system including the Sun, planets, meteorites, comets, asteroids, and moons
2. The magnetic needle of a compass is attracted to Earth's Magnetic North and to some metal objects that are nearby.	7(B) classify substances by their physical and chemical properties	
3. A map is a symbolic representation of a certain land area.	3(C) represent the natural world using models and identify their limitations	
GPS Enrichment Concepts	Grade 6 Direct TEKS Link*	Grade 6 InDirect TEKS Link*
1. Universal time is a technique used to standardize time measurements.		
2. The spatial relationship between Earth and celestial objects can be used to determine location on Earth.	3(E) connect Grade 6 science concepts with the history of science and contributions of scientists	13(A) identify characteristics of objects in our solar system including the Sun, planets, meteorites, comets, asteroids, and moons
3. The GPS is used to make accurate measurements of latitude and longitude.		13(B) describe types of equipment and transportation needed for space travel

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