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| <p>1. <b>Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices. The student is expected to:</b></p> <ul style="list-style-type: none"> <li>A. identify, discuss, and demonstrate safe and healthy practices as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations, including wearing safety goggles or chemical splash goggles, as appropriate, washing hands, and using materials appropriately; and</li> <li>B. demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reusing or recycling paper, plastic, and metal.</li> </ul> <p>2. <b>Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:</b></p> <ul style="list-style-type: none"> <li>A. ask questions about organisms, objects, and events observed in the natural world;</li> <li>B. plan and conduct simple descriptive investigations;</li> <li>C. collect data and make observations using simple tools;</li> <li>D. record and organize data and observations using pictures, numbers, and words; and</li> <li>E. communicate observations about simple descriptive investigations.</li> </ul> <p>3. <b>Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:</b></p> <ul style="list-style-type: none"> <li>A. identify and explain a problem such as the impact of littering and propose a solution;</li> <li>B. make predictions based on observable patterns in nature; and</li> <li>C. explore that scientists investigate different things in the natural world and use tools to help in their investigations.</li> </ul> <p>4. <b>Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:</b></p> <ul style="list-style-type: none"> <li>A. collect information using tools, including computing devices, hand lenses, primary balances, cups, bowls, magnets, collecting nets, and notebooks; timing devices; non-standard measuring items; weather instruments such as demonstration thermometers; and materials to support observations of habitats of organisms such as terrariums and aquariums; and</li> <li>B. use the senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment.</li> </ul> | <p>5. <b>Matter and energy. The student knows that objects have properties and patterns. The student is expected to:</b></p> <ul style="list-style-type: none"> <li>A. observe and record properties of objects, including bigger or smaller, heavier or lighter, shape, color, and texture; and</li> <li>B. observe, record, and discuss how materials can be changed by heating or cooling.</li> </ul> <p>6. <b>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:</b></p> <ul style="list-style-type: none"> <li>A. use the senses to explore different forms of energy such as light, thermal, and sound;</li> <li>B. explore interactions between magnets and various materials;</li> <li>C. observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside; and</li> <li>D. observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow.</li> </ul> <p>7. <b>Earth and space. The student knows that the natural world includes earth materials. The student is expected to:</b></p> <ul style="list-style-type: none"> <li>A. observe, describe, and sort rocks by size, shape, color, and texture;</li> <li>B. observe and describe physical properties of natural sources of water, including color and clarity; and</li> <li>C. give examples of ways rocks, soil, and water are useful.</li> </ul> | <p>8. <b>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></p> <ul style="list-style-type: none"> <li>A. observe and describe weather changes from day to day and over seasons;</li> <li>B. identify events that have repeating patterns, including seasons of the year and day and night; and</li> <li>C. observe, describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun.</li> </ul> <p>9. <b>Organisms and environments. The student knows that plants and animals have basic needs and depend on the living and nonliving things around them for survival. The student is expected to:</b></p> <ul style="list-style-type: none"> <li>A. differentiate between living and nonliving things based upon whether they have basic needs and produce offspring; and</li> <li>B. examine evidence that living organisms have basic needs such as food, water, and shelter for animals and air, water, nutrients, sunlight, and space for plants.</li> </ul> <p>10. <b>Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to:</b></p> <ul style="list-style-type: none"> <li>A. sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape;</li> <li>B. identify basic parts of plants and animals;</li> <li>C. identify ways that young plants resemble the parent plant; and</li> <li>D. observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower, and fruit.</li> </ul> |
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