Version 1.0 August 18th, 2009

| ***6TH GRADE BSIPS*** | ***CONTENT POWER OBJECTIVES*** |
|---|---|
| Skill 1: Scientific Method<br>a. Conduct scientific investigations identifying controls and variables<br>b. Conduct a scientific investigation identifying and applying the steps of the scientific method<br>c. Write a proper scientific hypothesis and conclusion. | **Hydrology:**<br>a) Compare and contrast of the major components and the resident time of the hydrological cycle (e.g. precipitation/transpiration, condensation/evaporation, run-off/ground water).<br>b) Illustrate the major components the hydrological cycle.<br>c) Identify examples of erosion and weathering (mechanical and physical) in nature.<br><br>**Meteorology:**<br>a) Explain how the water cycle influences weather and climate.<br>b) Distinguish the difference in the types of clouds and how they relate to weather predictions.<br>c) Analyze weather patterns and to predict weather.<br><br>**Geology**<br>a) Identify the geological events(earthquakes, volcanoes,) that occurs at plate boundaries.<br>b) Identify the processes occurring in the formation of sedimentary, igneous, and metamorphic rocks.<br>c) Investigate the earth's renewable and non-renewable resources and the impact of earth's cycles on these resources.<br><br>**Force/Motion:**<br>a) Conduct experiments on the three laws of motion and identify examples in nature.<br>b) Describe the effects of a force (gravity, friction) on the movement, speed, and direction of an object.<br><br>**Matter:**<br>a) Label the parts of an atom (proton, neutron, and electron) and the type of charge each part possesses.<br>b) Identify physical properties of an object (shape, size, color, texture, temperature, mass, volume)<br>c) Give examples of physical changes that can occur for an object.<br>d) Measure physical properties of matter (shape, size, color, texture, temperature, mass, volume)<br>e) Identify states of matter and explain how temperature will affect changes in state.<br><br>**Interdependence of organisms/environment**<br>a) Compare and contrast the roles of organisms in the environment (autotroph/heterotroph/decomposer, predator/prey,<br>b) Construct a food web/food chain within a specific ecosystem<br>c) Explain how populations are affected by the availability of matter and energy in an ecosystem.<br><br>**Organization within Living Organisms**<br>a) Label the organs within the human body.<br>b) Explain how each of the five major organ systems (digestive, circulatory, respiratory, excretory, nervous) is necessary to sustain life.<br>c) Explain the relationship among the five major organ systems.<br>d) Identify function of the major organs within each system. |
| Skill 2: Technical Information<br>a. Accurately follow the technical procedures for an investigation<br>b. Use appropriate scientific terminology to communicate information/conclusions (individual/groups) from an investigation.<br>c. Construct and interpret a data table during a scientific investigation. | |
| Skill 3: Classification<br>a. Identify *properties* by which a set of objects, organisms, events can be ordered<br>b. Use observable *properties* to place objects, organisms, events into a classification system | |
| Skill 4: Measurement/Tools<br>a. Compare metric units of measurement (mg, g, kg)<br>b. Measure precisely using metric measurement tools (graduated cylinder, beaker, triple beam balance, ruler, meter stick, and thermometer)<br>c. Use appropriate tools for taking volume, temperature, and linear measurements in a scientific investigation<br>d. Record measurement data using appropriate units | |