4th Grade Science

Priority Standard #1: Organisms Functioning in their

Environment Students:

a) construct an explanation from evidence that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction

b) develop and use a model of a system to describe how animals receive different types of information from their environment through their senses, process the information in their brain and respond to the information

c) analyze and interpret data from fossils to provide evidence of the stability and change in organisms and environments from long ago

d) engage in argument from evidence based on patterns in rock layers and fossils found in those layers to support an explanation that environments have changed over time

Priority Standard #2: Energy Transfer

Students:

a) construct an explanation to describe the cause and effect relationship between the speed of an object and the energy of that object

b) ask questions and make observations about the changes in energy that occur when objects collide

c) plan and carry out an investigation to gather evidence from observations that energy can be transferred from place to place by sound, light, heat, and electrical currents

d) design a device that converts energy from one form to another

Priority Standard #3: Wave Patterns

Students:

a) develop and use a model to describe the regular patterns of waves

b) develop and use a model to describe how visible light waves reflected from objects enter the eye causing objects to be seen

c) design a solution to an information transfer problem using wave patterns

Priority Standard #4: Observable Patterns in the Sky

Students:

a) construct an explanation that differences in the apparent brightness of the Sun compared to other stars is due to the relative distance (scale) of stars from Earth

b) analyze and interpret data of observable patterns to show that Earth rotates on its axis and revolves around the Sun