

4th Grade Science Learning Targets

Learning Target 1 : Constructing Explanations and Designing Solutions

Skills:

- A. I can construct an explanation using evidence that plants and animals have internal and external structures that function to support survival 4.1.1 *Vision and Light*
- B. I can construct an explanation to describe the cause and effect relationship between the speed of an object and the energy of that object 4.2.1 *Energy Conversions*
- C. I can design a device that converts energy from one form to another. 4.2.4 *Energy Conversion*
- D. Design a solution to an information transfer problem using wave patterns. 4.3.3 *Waves, Energy and Information*
- C. I can construct an explanation that differences in the brightness of the Sun compared to other stars is due to their distance (scale) from the earth. 4.4.1 *Patterns of Earth and Sky*

Learning Target 2 : Develop and Use a Model

Skills:

- A. Develop and use a model of a system to describe how animals receive different types of information from their environment through their senses, process and respond to the information. 4.1.2 *Vision and Light*
- B. Develop and use a model to describe the regular patterns of waves. (Amplitude and Wavelength) 4.3.1 *Waves, Energy and Information*
- C. Develop and use a model to describe how visible light rays reflected from objects enter the eye causing objects to be seen. 4.3.2 *Patterns of Earth and Sky*

Learning Target 3: Analyze and Interpret data

Skills:

- A. I can analyze and interpret data from fossils to provide evidence of the stability and change in organisms and environments from long ago. 4.1.3 *Earth Features*
- B. I can analyze and interpret data of observable patterns to show that the Earth rotates on its axis and revolves around the sun. (day and night, length and direction of shadows, and seasonal appearance of some stars. 4.4.2 *Patterns of Earth and Sky*

Learning Target 4: Engage in an Argument from Evidence

Skill:

- A. I can engage in an argument from the evidence based on patterns in rock layers and fossils found in those layers to support an explanation that environments have changed over time. 4.1.4 *Earth Features*

Learning Target 5: Ask Questions and Make Observations

Skills

- A. I can ask a question and make observations about the changes in energy that occur when objects collide. 4.2.2 *Energy Conversions*

Learning Target 6: Plan and Carry out an investigation

Question:

- A. I can plan and carry out an investigation to gather evidence that energy can be transferred from place to place by sound, light, heat and electrical currents. 4.2.3 *Energy Conversions*