

Fourth Grade Science

Updated March 2020

Course Description

Students in fourth grade will focus on forces and interactions (motion and stability), energy transformation, waves and their applications in technologies for information transfer, structure and processes of organisms, engineering and design.

Big Ideas

- 1) Science understanding is developed with science process skills, scientific knowledge, scientific investigation, reasoning, and critical thinking.
- 2) Organisms are interdependent with one another and their environment.
- 3) Earth's systems interact with one another as they undergo change by common processes.
- 4) Energy has a source, can be stored, and can be transferred but is conserved within a system.

ELO #	Essential Learner Outcome Description	Standard
1	Construct an argument that plants, and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. <u>*Clarification Statement:</u> Examples of structures could include thorns, stems, roots, colored petals, heart, stomach, lung, brain, and skin.	4.LS1.A.1
2	Plan and conduct scientific investigations or simulations to provide evidence of how natural processes (e.g., weathering and erosion) shape Earth's surfaces.	4.ESS2.A.1
3	Develop a model of waves to describe patterns in terms of amplitude or wavelength and that waves can cause objects to move. <u>*Boundary:</u> The terms amplitude and wavelength should not be assessed. <u>*Clarification Statement:</u> Examples of models could include diagrams, analogies, and physical models using wire to illustrate the wavelength and amplitude of waves.	4.PS4.A.1
4	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.	4.PS3.B.2