

**NEXT GENERATION SCIENCE STANDARDS
TOPICS BY GRADE LEVEL
GRADE K**

FORCES AND INTERACTIONS: PUSHES AND PULLS

- The effects of different strengths or different directions of pushes and pulls on the motion of an object
- A design solution works as intended to change the speed or direction of an object with a push or a pull

**INTERDEPENDENT RELATIONSHIPS IN ECOSYSTEMS:
ANIMALS, PLANTS AND THEIR ENVIRONMENT**

- Patterns of what plants and animals, including humans, need to survive
- Plants and animals, including humans, can change the environment to meet their needs
- The needs of different plants and animals, including humans, and the places they live
- Solutions that will reduce the impact of humans on the land, water, air and/or other living things in the local environment

WEATHER AND CLIMATE

- The effect of sunlight on Earth's surface
- That will reduce the warming effect of sunlight on an area
- Local weather conditions to describe patterns over time
- The purpose of weather forecasting to prepare for, and respond to, severe weather

ENGINEERING DESIGN

- Ask questions, make observations and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- Develop a simple sketch, drawing or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
- Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

**Go to www.nextgenscience.org for Clarification Statements, Science and Engineering Practices, Disciplinary Core Ideas and Cross Cutting Concepts for each topic listed above. You will also find all of the connections to the Common Core for both ELA/Literacy and Mathematics.