

**ADW Grade 4 Science Standards  
2017**

<b>PHYSICAL SCIENCE (PS)</b>	<b>Standards</b>
<b>SC.4.PS.1</b>	Investigate the relationship of the speed of an object to the energy of that object and predict outcomes about the changes in energy that occur when objects collide..
<b>SC.4.PS.2</b>	Ask questions and predict outcomes about the transfer and changes in energy that occur when objects collide.
<b>SC.4.PS.3E</b>	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.
<b>SC.4.PS.4</b>	Develop a model of waves to describe patterns in terms of amplitude, wavelength, and energy.
<b>SC.4.PS.5</b>	Investigate and recognize properties of sound that include pitch, loudness (amplitude), and vibration as determined by the physical properties of the object making the sound
<b>LIFE SCIENCE (LS)</b>	<b>Standards</b>
<b>SC.4.LS.1</b>	Obtain evidence that all living organisms are made of one or more cells.
<b>SC.4.LS.2</b>	Develop a model to describe the organization of cells into systems of tissues and organs that carry out bodily functions in multicellular organisms.
<b>SC.4.LS.3</b>	Use evidence to explain how animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.
<b>SC.4.LS.4</b>	Construct an explanation of characteristics that scientists use to classify organisms.
<b>EARTH AND SPACE SCIENCE (ESS)</b>	<b>Standards</b>
<b>SC.4.ESS.1</b>	Investigate how the moon appears to move through the sky and how the moon affects the Earth.
<b>SC.4.ESS.2</b>	Observe the detailed characteristics of rocks and minerals. Identify and classify rocks as being composed of different combinations of minerals
<b>SC.4.ESS.3</b>	Determine how fossils are formed, discovered, layered over time, and used to provide evidence of the organisms and the environments in which they lived long ago.
<b>SC.4.ESS.4</b>	Describe how geological forces change the shape of the land suddenly and gradually, over time.
<b>SC.4.ESS.5E</b>	Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.
<b>SC.4.ESS.6</b>	Obtain and combine information to describe how energy and fuels are derived from natural resources and how their uses affect the environment
<b>Grades 3-5 Engineering Standards (E )</b>	<b>Standards</b>
<b>SC.3-5.E.1</b>	Identify a simple problem with the design of an object that reflects a need or a want. Include criteria for success and constraints on materials, time, or cost.
<b>SC.3-5.E.2</b>	Construct and compare multiple plausible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
<b>SC.3-5.E.3</b>	Construct and perform fair investigations in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.