

<u>Course Title:</u>	Sixth Grade Science
<i>Physical Sciences</i>	
<u>Grade Level Standards</u>	
<ul style="list-style-type: none"> • Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed. (6-PS1-4) 	
<ul style="list-style-type: none"> • Develop models to describe the atomic composition of simple molecules and extended structures. (6-PS1-1) 	
<ul style="list-style-type: none"> • Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved. (6-PS1-5) 	
<ul style="list-style-type: none"> • Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. (6-PS1-2) • Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.* (6-PS1-6) 	
<i>Life Sciences</i>	
<u>Grade Level Standards</u>	
<ul style="list-style-type: none"> • Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells. (6-LS1-3) 	
<ul style="list-style-type: none"> • Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories. (6-LS1-8) 	
<ul style="list-style-type: none"> • Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells. (6-LS1-1) • Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function. (6-LS1-2) 	
<ul style="list-style-type: none"> • Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation. (6-LS3-2) 	
<i>Earth and Space Science</i>	
<u>Grade Level Standards</u>	
<ul style="list-style-type: none"> • Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects. (6-ESS3-2) 	
<ul style="list-style-type: none"> • Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process. (6-ESS2-1) • Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions. (6-ESS2-3) 	

- Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales. (6-ESS2-2)

- Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes. (6-ESS3-1)

Engineering

Grade Level Standards

- Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions. (6-ETS1-1)

- Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. (6-ETS1-2)

- Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success. (6-ETS1-3)
- Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. (6-ETS1-4)