

## Grade 7 Science Content Connections between 2021 and 2014

The purpose of this document is to assist teachers with identifying the content connections between the South Carolina College-and Career-Ready 2021 Science Standards and the 2014 Science Standards and Performance Indicators (PI). **These content connections may not be direct or match in breadth/depth between the two sets of standards.**

2021 Performance Expectation	2014 PI
7-PS1-1. Develop models to describe the atomic composition of simple molecules and extended structures.	7.P.2A.1
7-PS1-2. Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.	7.P.2B.1 7.P.2B.4
7-PS1-3. Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.	Nothing Direct
7-PS1-5. 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.	7.P.2B.5
7-PS1-6. Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.	Nothing Direct
7-PS3-1. Construct and interpret graphical displays of data to describe the proportional relationships of kinetic energy to the mass of an object and to the speed of an object.	6.P.3A.2
7-PS3-2. Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.	6.P.3A.2
7-PS3-5. Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.	6.P.3A.2
7-LS1-6. Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.	6.L.5B.2
7-LS1-7. Develop a model to describe how food molecules in plants and animals are rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.	6.L.5B.2
7-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.	7.EC.5A.3
7-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.	7.EC.5B.1

2021 Performance Expectation	2014 PI
7-LS2-3. Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.	7.EC.5B.2
7-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.	7.EC.5A.3 7.EC.5B.3
7-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.	7.EC.5B.4
7-ESS3-1. 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.	8.E.5A.1 8.E.5A.4 8.E.5A.5
7-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.	6.E.2A.2
7-ESS3-4. Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth’s systems.	6.E.2A.2
7-ESS3-5. Ask questions to clarify evidence of the factors that have impacted global temperatures over the past century.	6.E.2A.2