

Healthy Water Healthy People Module Standard Correlations: Grades 3-7

Next Generation Science Standards

Italics indicate connections between NGSS and Healthy Water Healthy People Module.

Performance Expectation	Disciplinary Core Idea	Science and Engineering Practice	Crosscutting Concept
4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.	<p>LS1.A: Structure and Function</p> <ul style="list-style-type: none"> Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. <p><i>Online Activity: Students explore parts of the human body, how those body parts interact, and learn about the role of water in each part of the body.</i></p>	<p>Engaging in Argument from Evidence</p> <ul style="list-style-type: none"> Construct an argument with evidence, data, and/or a model. <p><i>N/A</i></p>	<p>Systems and System Models</p> <ul style="list-style-type: none"> A system can be described in terms of its components and their interactions. <p><i>Online Activity: Students view a human body as interacting components. Students can also use the Educator Resources and My Science Notebook to learn more about each component of the human body system.</i></p>
5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	<p>LS2.A: Interdependent Relationships in Ecosystems</p> <ul style="list-style-type: none"> The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plants parts and animals) and therefore operate as “decomposers.” Decomposition eventually restores (recycles) some materials back to the soil. Organisms can survive only in environments in which their particular needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life. 	<p>Developing and Using Models</p> <ul style="list-style-type: none"> Develop a model to describe phenomena. <p><i>Online Activity: Students use Water in the Body activity as a model for their own body to describe how water functions within different body parts.</i></p> <p>Connections to the Nature of Science</p>	<p>Systems and System Models</p> <ul style="list-style-type: none"> A system can be described in terms of its components and their interactions. <p><i>Online Activity: Students view a human body as interacting components. Students can also use the Educator Resources and My Science Notebook to learn more about each component of the human body system.</i></p>

	<p>Newly introduced species can damage the balance of an ecosystem.</p> <p><i>N/A</i></p> <p>LS2.B: Cycles of Matter and Energy Transfer in Ecosystems</p> <ul style="list-style-type: none"> • Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment. <p><i>Online Activity: Students learn that humans obtain water from the environment and release it again as waste. They also learn how water cycles through the body.</i></p>	<p>Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena</p> <ul style="list-style-type: none"> • Science explanations describe the mechanisms for natural events. <p><i>Online Activity: Students learn about how water is involved in bodily functions.</i></p>	
<p>MS-LS1-1. Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.</p>	<p>LS1.A: Structure and Function</p> <ul style="list-style-type: none"> • All living things are made up of cells, which is the smallest unit that can be said to be alive. An organism may consist of one single cell (unicellular) or many different numbers and types of cells (multicellular). <p><i>Online Activity: Students learn about the cells that make in their blood, and the role of water in these cells.</i></p>	<p>Planning and Carrying Out Investigations</p> <ul style="list-style-type: none"> • Conduct an investigation to produce data to serve as the basis for evidence that meet the goals of an investigation. <p><i>N/A</i></p>	<p>Scale, Proportion, and Quantity</p> <ul style="list-style-type: none"> • Phenomena that can be observed at one scale may not be observable at another scale. <p><i>Online Activity: Students use the online model to view blood cells too small to be seen with the naked eye.</i></p> <p>Connections to Engineering, Technology and Applications of Science</p> <p>Interdependence of Science, Engineering, and Technology</p> <ul style="list-style-type: none"> • Engineering advances have led to important discoveries in

			<p>virtually every field of science, and scientific discoveries have led to the development of entire industries and engineered systems.</p> <p><i>N/A</i></p>
<p>MS-LS1-3. Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.</p>	<p>LS1.A: Structure and Function</p> <ul style="list-style-type: none"> • In multicellular organisms, the body is a system of multiple interacting subsystems. These subsystems are groups of cells that work together to form tissues and organs that are specialized for particular body functions. <p><i>Online Activity: Students learn about the role of water in many different tissues and organs of the human body.</i></p>	<p>Engaging in Argument from Evidence</p> <ul style="list-style-type: none"> • Use an oral and written argument supported by evidence to support or refute an explanation or a model for a phenomenon. <p><i>N/A</i></p>	<p>Systems and System Models</p> <ul style="list-style-type: none"> • Systems may interact with other systems; they may have sub-systems and be a part of larger complex systems. <p><i>Online Activity: Students view a human body as interacting components. Students can also use the Educator Resources and My Science Notebook to learn more about each component of the human body system.</i></p> <p>Connections to Nature of Science Science is a Human Endeavor</p> <ul style="list-style-type: none"> • Scientists and engineers are guided by habits of mind such as intellectual honesty, tolerance of ambiguity, skepticism, and openness to new ideas. <p><i>N/A</i></p>

Common Core ELA Standards

NONE

Ocean Literacy Standards

<p>(6) The ocean and humans are inextricably interconnected.</p>	<p>(a) The ocean affects every human life. It supplies freshwater (most rain comes from the ocean) and nearly all Earth's oxygen. It moderates the Earth's climate, influences our weather, and affects human health.</p>
--	---

Source: National Oceanic and Atmospheric Administration, et al. 2006. Ocean Literacy: The Essential Principles of Ocean Sciences, K-12. Washington, DC: NOAA.