

## Grade 5 Science: Year at a Glance

<b>UNIT 1: PROPERTIES OF MATTER</b>				<b>Instructional days: 15</b>	
<b>Performance Expectations</b>	<b>Learning Goals (Foundation Box)</b>			<b>Connections to the CCSS – ELA</b>	<b>Connections to the CCSS – Mathematics</b>
	<b>Disciplinary Core Ideas</b>	<b>Science and Engineering Practices</b>	<b>Crosscutting Concepts</b>		
5-PS1-3    Make observations and measurements to identify materials based on their properties.	PS1.A	Planning and Carrying Out Investigations	Scale, Proportion, and Quantity	W.5.7 W.5.8 W.5.9	MP.2 MP.4 MP.5
5-PS1-1    Develop a model to describe that matter is made of particles too small to be seen.	PS1.A	Developing and Using Models	Scale, Proportion, and Quantity	RI.5.7	MP.2 MP.4 5.NBT.A.1 5.NF.B.7 5.MD.C.3 5.MD.C.4
<b>Teacher Notes</b>					
<b>Instructional implementation is based on a 100-day time frame—for example, 33 weeks of instruction x 3 days per week = 99 days + 1 = 100 days of instruction. This time frame assumes a 45–60 minute instruction block. Teachers should calculate the instructional days based on their time frame.</b>					

\* Indicates connection to Engineering

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<b>UNIT 2: CHANGES TO MATTER</b>				<b>Instructional days: 15</b>	
<b>Performance Expectations</b>	<b>Learning Goals (Foundation Box)</b>			<b>Connections to the CCSS – ELA</b>	<b>Connections to the CCSS – Mathematics</b>
	<b>Disciplinary Core Ideas</b>	<b>Science and Engineering Practices</b>	<b>Crosscutting Concepts</b>		
5-PS1-4 Conduct an investigation to determine whether the mixing of two or more substances results in new substances.	PS1.B	Planning and Carrying Out Investigations	Cause and Effect	W.5.7 W.5.8 W.5.9	
5-PS1-2 Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.	PS1.A PS1.B	Using Mathematics and Computational Thinking	Scale, Proportion, and Quantity	W.5.7 W.5.8 W.5.9	MP.2 MP.4 MP.5 5.MD.A.1
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<b>UNIT 3: ENERGY AND MATTER IN ECOSYSTEMS</b>				<b>Instructional days: 20</b>	
<b>Performance Expectations</b>	<b>Learning Goals (Foundation Box)</b>			<b>Connections to the CCSS – ELA</b>	<b>Connections to the CCSS – Mathematics</b>
	<b>Disciplinary Core Ideas</b>	<b>Science and Engineering Practices</b>	<b>Crosscutting Concepts</b>		
5-LS1-1 Support an argument that plants get the materials they need for growth chiefly from air and water.	LS1.C	Engaging in Argument from Evidence	Energy and Matter	RI.5.1 RI.5.9 W.5.1	MP.2 MP.4 MP.5 5.MD.A.1
5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	LS2.A LS2.B	Developing and Using Models	Systems and System Models	RI.5.7 SL.5.5	MP.2 MP.4
5-PS3-1 Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.	PS3.D LS1.C	Developing and Using Models	Energy and Matter	RI.5.7 SL.5.5	
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<b>UNIT 4: WATER ON THE EARTH</b>				<b>Instructional days: 15</b>		
<b>Performance Expectations</b>	<b>Learning Goals (Foundation Box)</b>			<b>Connections to the CCSS – ELA</b>	<b>Connections to the CCSS – Mathematics</b>	
	<b>Disciplinary Core Ideas</b>	<b>Science and Engineering Practices</b>	<b>Crosscutting Concepts</b>			
5-ESS2-2	Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.	ESS2.C	Using Mathematics and Computational Thinking	Scale, Proportion, and Quantity	RI.5.7 W.5.8 SL.5.5	MP.2 MP.4
5-ESS3-1	Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.	ESS3.C	Obtaining, Evaluating, and Communicating Information	Systems and System Models	RI.5.1 RI.5.7 RI.5.9 W.5.8 W.5.9	MP.2 MP.4
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<b>UNIT 5: EARTH SYSTEMS</b>				<b>Instructional days: 18</b>	
<b>Performance Expectations</b>	<b>Learning Goals (Foundation Box)</b>			<b>Connections to the CCSS – ELA</b>	<b>Connections to the CCSS – Mathematics</b>
	<b>Disciplinary Core Ideas</b>	<b>Science and Engineering Practices</b>	<b>Crosscutting Concepts</b>		
5-ESS2-1 Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	ESS2.A	Developing and Using Models	Systems and System Models	RI.5.7 SL.5.5	MP.2 MP.4 5.G.2
5-ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.	ESS3.C	Obtaining, Evaluating, and Communicating Information	Systems and System Models	RI.5.1 RI.5.7 RI.5.9 W.5.8 W.5.9	MP.2 MP.4
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<b>UNIT 6: INTERACTIONS WITHIN THE EARTH, SUN, AND MOON SYSTEM</b>					<b>Instructional days: 17</b>
<b>Performance Expectations</b>	<b>Learning Goals (Foundation Box)</b>			<b>Connections to the CCSS – ELA</b>	<b>Connections to the CCSS – Mathematics</b>
	<b>Disciplinary Core Ideas</b>	<b>Science and Engineering Practices</b>	<b>Crosscutting Concepts</b>		
5-PS2-1 Support an argument that the gravitational force exerted by Earth on objects is directed down.	PS2.B	Engaging in Argument from Evidence	Cause and Effect	RI.5.1 RI.5.9 W.5.1	
5-ESS1-1 Support an argument that the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.	ESS1.A	Engaging in Argument from Evidence	Scale, Proportion, and Quantity	RI.5.1 RI.5.7 RI.5.8 RI.5.9 W.5.1	MP.2 MP.4 5.NBT.A.2
5-ESS1-2 Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.	ESS1.B	Analyzing and Interpreting Data	Patterns	SL.5.5	MP.2 MP.4 5.G.A.2
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