



Science Core Curriculum

Grade One – Quarter 4

NYS Key Ideas & Performance Indicators Standard

Resources
 Chapters, Web Links,
 Leveled Books, Technology
 Tools, Nonfiction/Technical Writing

Assessments

PHYSICAL SCIENCE			
	Key Idea 4: Energy exists in many forms, and when these forms change energy is conserved.	Leveled Readers(Scott Foresman) Learning About Energy Energy All About Electricity	
	Performance Indicator 4.1 Describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy.	http://www.woodlands-junior.kent.sch.uk/revision/Science/electricity.htm	Chapter 10 2 Labs
	Major Understandings:		
4.1a	Energy exists in various forms: heat, electric, sound, chemical, mechanical, light.	pgs. 223, 260-267, 274-276, 278-297, 304, 308-312, 317, 350 http://www.bbc.co.uk/schools/ks2bitesize/science/physical_processes/ http://www.brainpopjr.com/science/energy/ http://www2.scholastic.com/browse/article.jsp?id=1642 Chorley Resource Guide -Energy -Sound	KWL Chart TM.pg.Emi
4.1b	Energy can be transferred from one place to another.	pgs. 278-283, 290-293, 312, 350	Lab Zone Directed



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4.1c	Some materials transfer energy better than others (heat and electricity).	pgs. 278-283, 350	Inquiry TM.pg.273D Scaffolded Questions TM.pg. 291
4.1d	Energy and matter interact: water is evaporated by the Sun’s heat; a bulb is lighted by means of electrical current; a musical instrument is played to produce sound; dark colors may absorb light, light colors may reflect light.	Chapter 8 2 Weeks pgs.226-229, 230-231, Chapter 9 pgs.242-271, 278-286, 290-293, 304, 308-309, 350 Chorley Resource Guide -Electricity	Cause and Effect Graphic Organizer Cards TM.pg. EMix
4.1e	Electricity travels in a closed circuit.	pgs. 292-293 Leveled Readers(Scott Foresman) All About Electricity Grade 1	Student made labeled diagram
4.1f	Heat can be released in many ways, for example, by burning, rubbing (friction), or combining one substance with another.	Chapter 10 2 Weeks pgs. 278-283 http://www.bbc.co.uk/schools/ks2bite_size/science/physical_processes/friction/play.shtml	Checkpoint Question pg.281
4.1g	Interactions with forms of energy can be either helpful or harmful.	pgs. 278-281, 290-293, 304	Cause and Effect Graphic Organizer Cards TM.pg. EMix



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	<p>Performance Indicator 4.2 Observe the way one form of energy can be transferred into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy).</p>	<p>http://www.woodlands-junior.kent.sch.uk/revision/Science/electricity.htm</p>	<p>Scaffolded Questions TM.pg.281</p>
	<p>Major Understandings:</p>		
4.2a	<p>Every day events involve one form of energy being changed to another.</p> <ul style="list-style-type: none"> o Animals convert food to heat and motion. o The Sun’s energy warms the air and water. 	<p>Chapter 10 2 Weeks pgs. 294-297, 312 pgs. 184-185, 189, 204-205, 228-229, 274-276, 278-283, 312, 320-321</p>	<p>Scaffolded Questions TM. pg.297</p>
4.2b	<p>Humans utilize interactions between matter and energy.</p> <ul style="list-style-type: none"> o Chemical to electrical, light, and heat: battery and bulb. o Electrical to sound (e.g., doorbell buzzer). o Mechanical to sound (e.g., musical instruments, clapping). o Light to electrical (e.g., solar-powered calculator). 	<p>Chapter 10 2 Weeks pgs. 278-281, 284-285, 290-293, 304 pgs. 262-263, 292-293 pgs. 260-261, 266-267, 308-309</p>	<p>Activity Flip Chart Make a Musical Instrument TM.pg 241E</p>