Alignment of **eesmarts** Lessons
to Connecticut Curriculum Frameworks

		Science			Mathematics	
		Content Standard	*Connecticut Mastery Test*	*Inquiry Standard AINQs/BINQs*	*Curriculum Standard*	*Connecticut Mastery Test*
Grade K **Iggy and Me, Saving Energy:** This big book offers an engaging read-aloud tale of a boy and his dinosaur friend. It introduces younger children to energy concepts through rhyme and repetition. As the story builds awareness of energy and why it's important to save it, several featured activities show students how they can start saving energy themselves.		K.1.6 K.2.2 K.2.5 K.4.2		1, 4, 5 - 6, 9	2.1,2.2,3.2	1,10, 19,24
Grade 1 **Rosa and Effy's Adventure:** All is not well in Wattsville! The grade one big book illustrates how an enthusiastic little girl and her dinosaur pal must save the residents from wasteful habits. The curriculum gives students a real life look at energy use and overuse in a typical house. Then, it empowers them to make smart energy decisions in their own homes.		1.2.5 1.4.2 1.4.3 1.4.7 1.4.8		1 - 8	2.2,3.1,3.2, 4.1	4,16,17, 23
Grade 2 **Sunny High Energy Girl**: Sunny has a lot of energy, in fact she gets all of her energy from the sun. With the help of Sunny and her school friends, students will explore how energy gets from the sun, into our foods and finally into our bodies. Students will be able to complete activities pertaining to energy pathways and nutrition label reading, and they will have a take-home book to share with their families.		2.2.4 2.4.1 2.4.5		1 - 7	1.1,1.2,2.2, 3.3,4.2	2,4,7,16, 17,19,24
Grade 3: Students will learn to about natural resources, renewable and nonrenewable resources and how to reduce, reuse and recycle. These lessons are aligned with the Connecticut State Frameworks, the Connecticut Mastery Test and the Grade Level Expectations for Grade 3. Students will learn through creating dough, reusing it and recycling it.	**Lesson 1: Found in Nature? Made by Humans?** Processing natural resources into finished producs takes energy.	3.4.1	B7	1 - 6	1.1	22,24
	Lesson 2: Renewable or Nonrenewable? Renewable resources do not get used up. Nonrenewable resources do.	3.4.3	B7	1, 3 - 6	3.3	14
	Lesson 3: How Much Trash Are You Making? Reusing and recycling are better for the environment than throwing things away…and everyone can help!	3.4.5	B7	1, 3 - 7, 9 - 10	1.1,2.1,3.3	16,22,24
	Lesson 4: Recycling Recycling uses less energy and fewer natural resources than making something from scratch.	3.4.6	B7	1, 3 - 7, 9 - 10	2.2,3.3,4.1	12,16,22
Grade 4: Students will learn about Energy and the Water Cycle, Plants and their Environmental Needs for Survival, Energy Pathways of Electrical Circuits; and Magnetism and Electromagnets. These lessons are aligned with the Embedded Task for 4th Grade. Students will learn through discovery of electrical circuits, where energy comes from, how it gets into the home and how it can be use more efficiently.	**Lesson 1: Solar Energy and the Water Cycle** Building a solar still to see how the sun moves water within the atmosphere.	4.3.1 4.3.2	B12	1, 3 - 7, 9 - 10	2.2,3.3,4.1	14,15, 19,25
	Lesson 2: Seeds to Food Examining energy use and food production by growing sprouts.	4.2.1 4.2.2	B10	1, 3 - 6, 9 - 10	2.2,3.3,4.1	14,15, 19,25
	Lesson 3: Energy Pathways Building and manipulating simple circuits of batteries, flashlight bulbs and wire.	4.4.1 4.4.2	B14 B15	1, 3 - 7, 9	4.1,4.2	19,22,24
	Lesson 4: Magnetism and Electromagnets Exploring magnets, magnetic properties, polarity and electromagnets.	4.4.3 4.4.5-9	B16	1, 3 - 6, 9	4.1,4.2	19,22,24
Grade 5: Students will learn about Solar Energy, Light Reflection and Absorption, Wasted Energy, the Earth's Rotation and Tracking the Sun, and Measuring Solar Altitude. These lessons support the Grade-Level Expectations for 5th Grade in the Earth Science and the Science and Technology strands of the CT Science Framework.	**Lesson 1: Learning to Use Heat from the Sun** Measuring and graphing temperature differences in reflecting and absorbing surfaces.	5.1.5 5.1.7 5.1.8	B19	1, 3 - 7, 9 - 10	1.1,4.1,4.2	19,20, 22,24
	Lesson 2: Wasted Energy Comparing the temperatures of incandescent and compact fluorescent light bulbs.	5.1.2 5.4.a	B19	1, 3 - 7, 9 - 10	1.1,4.1,4.2	19,20, 22,24
	Lesson 3: Tracking the Sun Observing the reflection of the sun throughout the day.	5.3.1 5.3.a	B22	1, 3 - 7, 9 - 10	3.1,3.3,4.1	14,18
	Lesson 4: Measuring Solar Altitude Building a simple instrument called a gnomon to measure the height of the sun in the sky throughout the day.	5.3.1 5.4.a	B22	1, 3 - 7, 9 - 10	3.1,3.2,3.3,4.1	14,17, 18,19,25

Grade 6 and above: lessons are delineated by Levels 1, 2 or 3 of difficulty and progression, and they include consumable worksheets, activities, experiments and readings. The lessons focus on the topics of Energy Transformations, Energy Efficiency, Energy Systems, Energy and the Environment and Renewable Energy Sources, each facilitatating higher level thinking skills such as program solving through analytical and cricital thinking.

			Science			Mathematics	
			Content Standard	Connecticut Mastery Test	Inquiry Standard CINQs	Curriculum Standard	Connecticut Mastery Test
Level 1	Energy Transformations	**Lesson 1: The Energy Roller Coaster** Wathcing energy change from one form to another.	7.1.b 7.1.7-8	C14	1 - 10	1.1,1.2,3.3,4.1	15,16,22 ,25
	Energy Efficiency	**Lesson 2: Working Efficiently** Comparing heat from incandescent and fluorescent bulbs.	7.1.8		1 - 10	1.2,4.1,4.3	20,24,25
	Systems	**Lesson 3: Home Systems - Wired** Learning about home energy use and household circuits.	7.1.8		1 - 2, 6 - 10	4.1,4.2	20,24
	Environment	**Lesson 4: Fuel Spills and the Environment** Researching risks related to transporting fuels	6.4.4 6.4.8	C11	1 - 10	4.1	20,24
	Clean Renewable	**Lesson 5: Wind Energy Is Solar Energy** Building and studying a device that models offshore wind currents	6.3.2-3 6.3.9	C9	1 - 10		
Level II	Energy Transformations	**Lesson 1: Food, Fuel and Fire** Comparing hydrocarbons and carbohydrates, and combustion and metabolism.	6.2.3-4 7.1.8	C14	1 - 5, 8 - 10		
	Energy Efficiency	**Lesson 2: Conservation** Evaluating the true cost of appliances.	7.1.8		2, 5 - 6, 8 - 10	1.1,4.1,4.1	19,20,23 ,24,25
	Systems	**Lesson 3: Systems and Cycles** Analyzing daily changes in electrical demand.	7.1.b		1 - 10	4.1,4,2	19,20,24 ,25
	Environment	**Lesson 4: Up in Smoke** Learning that reducing energy use reduces air pollution.	7.1.8		2, 9 - 10		
	Clean Renewable	**Lesson 5: Solar Energy and the Water Cycle** Demonstrating how the sun operates as the planet's pump, moving water from the oceans to the mountains.	7.3.7	C19	1 - 5, 8 - 10	1.2,4.1	20,22,24
Level III	Energy Transformations	**Lesson 1: Solar Power - Direct from the Sun** Seeing ways to use solar energy.	6.3.a 7.1.8 8.4		1 - 10	3.3,4.1,4.2	19,20,22 ,24,25
	Energy Efficiency	**Lesson 2: Lighting the Way** Comparing the cost of incandescent and fluorescent light bulbs.	7.1.a 8.1.1	C13 C23	2, 6 - 10	2.2,4.1,4.2	7,20,24
	Systems	**Lesson 3: Overload!** Planning improvements in public infrastructure.	8.4		2, 6, 8 - 10	4.1,4.2	19,20,24
	Environment	**Lesson 4: Fossil Fuels and Gas Blankets** Analyzing atmospheric changes related to energy use.	8.4		2, 6 - 10	4.1,4.2	19,20,24
	Clean Renewable	**Lesson 5: Using Solar Energy, Step 1: Passive Solar Energy** Measuring the angle of the sun in the sky.	8.3.3-4 8.3.6	C29	1 - 10	2.1,3.1,4.1	18,20