Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
Chemistry Unit 10 – Energy	10 – 12	4th cycle	7 days

TEKS/Student Expectations	Examples/Specifications:
5A - identify changes in matter, determine the nature of the change, and examine the forms of energy involved	5A – recognize that both chemical and physical changes involve energy changes.
5B - identify and measure energy transformations and exchanges involved in chemical reactions	5B & 15A – identify if the energy is lost or gained during the change and measure the energy change using calorimetry.
15A - verify the law of conservation of energy by evaluating the energy exchange that occurs as a consequence of a chemical reaction	
1A - demonstrate safe practices during field and laboratory investigations.	1A & B – conduct lab experiments safely and follow instructor guidelines regarding appropriate disposal of materials.
1B - make wise choices in the use and conservation of resources and the disposal or recycling of materials.	
2A - plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting equipment and technology	2A – use the scientific method when planning a controlled experiment, including the identification and selection of appropriate equipment, and the development of a suitable hypothesis.
2B - collect data and make measurements with precision	2B & C– using the metric system, measure quantities to the correct number of significant digits using scientific notation as appropriate. Convert between units as needed and round to the correct number of digits when reporting a calculated answer.
2C - express and manipulate chemical quantities using scientific conventions and mathematical procedures such as dimensional analysis, scientific notation, and significant figures	
2D - organize, analyze, evaluate, make inferences, and predict trends from data	2D & E – apply the steps of the scientific method to lab investigations.
2E - communicate valid conclusions	

Language of Instruction:		**Instructional Resources/Textbook Correlations:**
Exothermic Endothermic Calorimeter Temperature Heat Specific heat		Glencoe Chemistry: Concepts and Applications – chapter 20.2 Exothermic/endothermic lab Calorimetry labs
		Weblinks/Other Resources:
Evaluation/External Assessment/Local Assessment:		**Best Instruction Timeline:**
TAKS test (1.1A, 1.2A-D, 4.8A-C) Teacher-designed test Laboratory reports and performance Quizzes Daily work Homework		1 day – types of energy and lab 4 days – energy calculations and 2 labs 2 days – review and assessment