

Name
TA

Chemistry 11
2023 - 2024



Learning Guide # 6: Thermochemistry

BIG IDEA: Types of Energy and Exothermic and Endothermic Reactions

Fundamental Knowledge (I know)

- The laws of conservation of energy
- The different types of energy discussed in chapter 6 (Radiant, Thermal, Chemical, and Potential) and can provide examples of each
- How to define the various characteristics of a thermodynamic reaction (Closed, Open, Isolated system; Surroundings, Exothermic and Endothermic Reactions)

Curricular Competencies (I can)

	Proficiency Scale Teacher and Student self assessment (Circle one)	Evidence (How do you know?)
I can: Use appropriate SI units and appropriate equipment, including digital technologies, to systematically and accurately collect and record data	Emerging (EMG) Initial Understanding Developing (DEV) Partial/Near Complete Understanding Proficient (PRF) Complete Understanding Extending (EXT) Sophisticated Understanding	
Connect scientific explorations to careers in science	Emerging (EMG) Initial Understanding Developing (DEV) Partial/Near Complete Understanding Proficient (PRF) Complete Understanding Extending (EXT) Sophisticated Understanding	

Student Signature:

Teacher Signature:

Date:

Instructions To help guide your learning, make your way through the activities in Option 1, Option 2, or Option 3. You may “mix and match” between the different Option columns.

TOPIC	OPTION 1	OPTION 2	OPTION 3
Types of Energy And Energy Changes	<p>Create a glossary of the “Key Words” in chapter 6 (Pgs. 223 – 254)</p> <p>Read Pages 224 – 226 and complete Review Questions: 6.1, 6.2, 6.3, 6.4, 6.5,6.6, 6.7, 6.8, 6.9 and 6.10 on Pg. 225.</p>	<p>Create a poster summarizing the different types of energy (4) <i>Radiant, Thermal, Chemical, Potential.</i></p> <p>Complete Review Questions: 6.1, 6.2, 6.3, 6.4, 6.5,6.6, 6.7, 6.8, 6.9 and 6.10 on Pg. 225.</p>	<p>Choose your own adventure!</p> <p>Pick up a planning sheet from the Science Kiosk.</p> <p>Create a plan! Make sure you read through the first page of this LG, as you will need to design ways to learn/practice and show your understanding of the topic(s) and skill(s) (competencies.)</p> <p>You will need to have a teacher approve your plan before beginning the LG.</p>
Thermodynamics and Enthalpy Changes	DON'T DO	DON'T DO	
Calorimetry	DON'T DO	DON'T DO	
Enthalpy of Formation and Heat of Solution and Dilution	DON'T DO	DON'T DO	
Chapter Review	Complete “problems”: 6.26, 6.28, and 6.59 on Pgs. 256 & 257.		
Lab	Lab 8A: Heat of Fusion of Ice (ASK YOUR TEACHER ABOUT THIS)		
Self Assessment	Reflect on the Fundamental Knowledge and Curricular Competencies. Use the rubric and make goals to improve for your next learning guide.		
Interview AND Quiz	See you teacher for an interview (Bring all your complete work to the interview) AND to have a quiz slip signed for the test center.		

Resources can be found at www.THSScience.com or the Science Kiosk

User: **THSS**

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