Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_

**WEEK 7 AGENDA: Unit 2 Website: kachemistry.weebly.com**

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| --- | --- | --- |
| **Date** | **Topic** | **Homework** |
| **CB** | **PA** | **H** |
| M – Oct 13 | NO SCHOOL! | --- | --- | --- |
| T – Oct 14 | Specific Heat Lab | 1-2*Textbook Assignment due by Friday* | 1-3*Textbook Assignment due by Friday* | 1-4*Textbook Assignment due by Friday* |
| W – Oct 15 | Specific Heat Lab (Cont.) | 5-7*Study for Quiz* | 5-8*Study for Quiz* | 5-9*Study for Quiz* |
| Th – Oct 16 | **Quiz**, Endothermic/ Exothermic | 10-12***Lab Report*** | 10-13***Lab Report*** | 10-13***Lab Report*** |
| F – Oct 17 | **Lab Reports Due**, Enthalpy/ Changes in State | 14-17Get Chart Signed | 14-17Get Chart Signed | 14-17Get Chart Signed |

**Do not write your answers on this sheet. Only answers written in your notebook will be graded. SHOW YOUR WORK FOR ALL PROBLEMS!!!**

1. How much heat is released when 155g of gold is cooled from 82oC to 15oC? The specific heat of gold is 0.129J/g oC.
2. A sample of water is heated from 5.2oC to 28.8oC. What is the mass of the sample if 1850J of heat is absorbed (specific heat of water = 4.18 J/goC)?
3. What is the final temperature of a 15.2 gram sample of copper if the initial temperature was 12.0 oC and the sample absorbed 225J of heat? The specific heat of copper is 0.387J/g oC.
4. What is the initial temperature of an 88 gram sample of gold if the final temperature was 50.0 oC and the system **lost** 425J of heat. The specific heat of gold is 0.129J/goC.
5. What is energy?
6. Explain why the rug on your floor feels warmer than the tile in the same room.
7. Put the following in order from most heat energy to least: an iceburg, an ice cube, a small amount of boiling water. Explain your answer.
8. A 40 g sample of water absorbs 500 Joules of energy. How much did the water temperature change? (Speciifc heat of water = 4.18 J/goC)
9. If 335 g of water at 65.5oC loses 9750 J of heat, what is the final temperature of the water? Look above for the specific heat of water.
10. Identify each reaction as exothermic or endothermic.
	1. Melting: solid 🡪 liquid (ice cream melting)
	2. Vaporization: liquid 🡪 gas (boiling water)
	3. Condensation: gas 🡪 liquid (rain)
	4. Freezing: liquid 🡪 solid (making ice cubes)
	5. Deposition: gas 🡪 solid (frost on car windshield)
	6. Sublimation: solid 🡪 gas (dry ice)
	7. 2H2O*(g)* + heat ↔ 2H2*(g)* + O2*(g)*
	8. 8H2 + S8 🡪 8H2S + heat
	9. Heating up your lunch in the microwave
	10. Baking a cake
	11. Your fingers getting cold when you make a snowball
11. In an exothermic reaction is heat gained or lost in the system? Draw a diagram that shows the transfer of heat energy in an exothermic reaction.
12. Gold has a specific heat of 0.129 J/goC. How many joules of heat energy are required to raise the temperature of 15 grams of gold from 22oC to 85oC? Is this process endothermic or exothermic? Explain your answer.
13. Graphite has a specific heat of 0.709 J/goC. If a 25 gram piece of graphite is cooled from 35oC to 18oC, how much energy was lost by the graphite? Is this process endothermic or exothermic? Explain your answer.
14. What is latent heat?
15. What is the heat of fusion?
16. What is the heat of vaporization?
17. What state or states of matter are present at each number?
	1. 1.
	2. 2.
	3. 3.
	4. 4.
	5. 5.