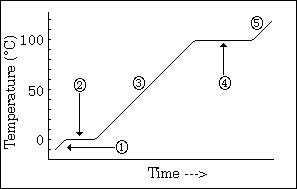
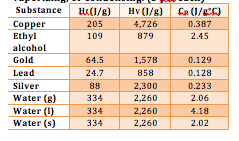
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| --- | --- | --- | --- | --- |
| **Date** | **Topic** | **Homework** | | |
| **CB** | **PA** | **H** |
| M – Oct 20 | Heat of Fusion and Vaporization | 1-6  *Textbook Reading due Friday* | 1-7  *Textbook Reading due Friday* | 1-8  *Textbook Reading due Friday* |
| T – Oct 21 | Review | 9-12, 15 | 9-13, 15 | 9-15 |
| W – Oct 22 | **Unit 2 Exam!!** | No Homework! | No Homework! | No Homework! |
| Th – Oct 23 | Unit 2 Test Reflection & Corrections | No Homework! | No Homework! | No Homework! |
| F – Oct 24 | Atomic Theory & Periodic Table  *Textbook Reading Due!* | 16-18, 20 | 16-20 | 16-20 |

1. What is latent heat?
2. What is the heat of fusion?
3. What is the heat of vaporization?
4. How does the molar heat of vaporization compare to the molar heat of condensation?
5. What state or states of matter are present at each number?
   1. 1.
   2. 2.
   3. 3.
   4. 4.
   5. 5.



**Use the table below for #6-8.**

1. How much heat is needed to raise the temperature of 25.0 grams of ice from -15.0°C to 0.0°C? (The specific heat of ice is 2.06J/g°C.)
2. How much heat is needed to raise the temperature of 25.0 grams of water from 0.00°C to 100.0°C? (The specific heat of water is 4.18J/g°C.)
3. How much heat is needed to raise the temperature of water vapor from 100.0°C to 150.0°C? The specific heat of water vapor is 2.02 J/g°C.
4. What is heat?
5. If Object A has a temperature of 520C and Object B has a temperature of 130C, in which direction will heat flow? Explain.
6. Are the following reactions **endothermic** or **exothermic**?

a. Baking cookies

b. Sublimation of solid iodine to gas

c. Freezing water to ice

d. Condensation on a cool glass on a hot day

e. Combustion of methane

f. Breaking glucose bonds in cellular respiration

12. How much heat is released when 13 g of calcium is heated from 230C to 720C?

|  |  |
| --- | --- |
| **Table 1: Specific Heat Capacity of Metals** | |
| **Metal** | **J/g oC** |
| Aluminum | 0.897 |
| Iron | 0.444 |
| Copper | 0.385 |
| Gold | 0.129 |
| Nickel | 0.440 |
| Silver | 0.240 |
| Calcium | 0.650 |
| Lead | 0.160 |

13. What is the specific heat of a substance with a mass of 25.0 g that absorbs 1,247 J of heat when the temperature increases by 540C?

14. What is the initial temperature of a sample of copper with mass of 34.0 g heated to a final temperature of 890C?

15. Which of the following has the greatest heat energy?

a. A sedan sized iceburg or a large cup of coffee

b. A lit match or a box of bricks

c. A 45 g block at 720C or a 45 g block at 1500C

d. A 45 g block at 720C or a 90 g block at 720C

16. What is an atom?

17. Would you expect two electrons to attract or repel each other?

18. Why does it make sense that if an atom loses electrons, it is left with a positive charge?

19. In your own words, state the main ideas of Dalton’s atomic theory.

20. Which of these statements would John Dalton have agreed with in the early 1800’s? For each explain why or why not.

a. Atoms are the smallest particles of matter.

b. The mass of an iron atom is different from the mass of a copper atom.

c. Every atom is silver is identical to every other atom of silver.

d. A compound is composed of atoms of two or more different elements.