Chemistry Bell Work, February 26- March 1

ACT Prep, System (closed & open), Conservation of Mass, Mass and Volume 1

Bell Work, Monday , 2/26/18, 4 questions

1. **What is a system?**

   The thing you are experimenting with including the container. When creating a model, a system is the thing or things you are representing.

2. **Define "open system"?**

   Stuff can enter and exit the system.

3. **Define closed system.**

   Nothing can enter or exit the system.

4. **State the law of Conservation of Mass based on your lab result.**

COM: If nothing enters or leaves the system, the mass of the system remains the same, despite changes in its appearance.

If matter is neither created nor destroyed during a chemical reaction, the mass of a closed system should remain constant during any chemical process.

"In a closed system, whatever amount of mass you start with, that's what you end up with."

Bell Work, Tuesday, 2/27/18, 4 questions

1. For the chemical reaction X + Y → Z,, how much product will result from mixing 100 grams of X with 50 grams of Y?

The law of Conservation of Mass (COM) says grams of reactants = grams of product

100 g of X + 50 g of Y = g of Z

100 g + 50 g = 150 g

150 g of Z

grams reactants = 150g, grams of product = 150g

2. In the chemical reaction M + N → P

25 grams of P are produced. If there was originally 10 grams of M, how many grams of N did you start with?

10 g of M + ? g of N = 25 g of P

g of N = 25 g P – 10 g M

g of N = 15 g

grams reactants = 25 g, grams of product = 25 g

Bell Work, Tuesday, 2/27/18, 4 questions

3. **Steel wool is composed mostly of iron ($\approx 99\%$). Explain what happened to the steel wool when heated that resulted in a mass increase.**

   Oxygen particles were added to the steel wool.

4. **Is the mass increase the result of a physical or chemical change? Justify your answer.**

The change was a chemical change because the iron that makes up the steel wool and the a chemical reaction to form iron oxide, known as rust, thus forming a new substance. The production of a new substance is a chemical change.

Bell Work, Wednesday, 2/28

1. Results of ACT I Test

A	B	C	D	E	F
Type of Passage	**Passage Numbers (question numbers)**	Total number of questions	**Total Number Answered without Guessing**	**Number of correct answers** not including guesses	**Percent Correct Answers (E/D) * 100**
Charts & Graphs	2, 4, 5 **(questions 7-11, 19– 27)**	15			
Experiments	3, 4, 7 **(questions1–6, 11-22, 35 – 40)**	18			
Conflicting Viewpoints	6 **(questions 28 – 34)**	7			

ACT Prep, Bell Work Thursday, March 1

1. Explain the Personal Order Of Difficulty (POOD) strategy.

Knowing how many questions you should attempt on the ACT is only half the battle; you also need to know which ones to attempt.

- **Now questions:** you know exactly how to answer these.
- **Later questions:** you're pretty sure you can these do but want to see if there are some Now questions ahead before you tackle them . ***Do the Later questions after you go through the test and finish all the Now questions.***
- **Never questions: Skip the questions and the passages.** Don't waste time: pick a Letter of the Day (LOTD) and move on.

2. How will the ACT Science exam count towards your grade?

ACT Science score counts as one test grades.

If your ACT scaled score an 18, your grade is a 90; 20 = 93, 23 =96