

1st Quarterly Assessment Review Sheet

Please use the 1st Quarterly Assessment Review Packet to help complete this review sheet.

Part I: Lab Equipment Unit

Use the words in the word box to answer the questions that follow:

Balance	Test tube	Thermometer
Apron	Florence flask	Microscope

1. _____ is used to measure mass.
2. _____ is used to protect clothing.
3. _____ is used to view objects for more detail.
4. _____ is used to measure temperature.
5. _____ is used to hold small amounts of a liquid sample.
6. _____ is used to boil chemicals.

In the space that follows, describe in a complete sentence how you could use one of the items listed above in your daily life. **Make sure you restate, write in complete sentences and provide details to support your answers.**

Part II: The Metric System Unit

Part A: Complete the following using the correct base unit of measure.

1. The _____ is used to measure volume.

2. The _____ is used to measure distance.
3. The _____ is used to measure mass.

Part B: Use the word box below to complete questions 4 - 7.

Meter (m)	Seconds (sec)	
degrees Celsius (°C)	Grams (g)	Milliliter (mL)

4. When measuring with a meter stick, the correct unit of measure is _____.
5. When measuring with a thermometer, the correct unit of measure is _____.
6. When measuring with a graduated cylinder, the correct unit of measure is _____.
7. When measuring with a stop watch, the correct unit of measure is _____.

Part C: Complete the following conversions using the King Henry Letters

8. 23kg = _____ g
9. 72kL = _____ L
10. 103km = _____ m

Part III: The Scientific Method Unit

Part A: Match the following terms with the correct definition:

- | | |
|--|---|
| <p>_____ 1. Hypothesis</p> <p>_____ 2. Data</p> <p>_____ 3. Repeated trials</p> <p>_____ 4. Conclusion</p> <p>_____ 5. Chart</p> | <p>a) the factor that can be changed in an experiment</p> <p>b) the best guess about the solution to a problem</p> <p>c) observations and measurements recorded during an experiment</p> <p>d) a method of organizing the data collected during an experiment</p> <p>e) a technique that decreases the amount of human error on the results</p> |
|--|---|

6. In a complete sentence, explain the difference between a dependent and independent variable.
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Part B: Use the following article to complete questions 1-5 and to complete the chart.

Pete and Ariel decided they wanted to do a science fair project together. They wanted to test if helium had mass. They decided to use balloons to determine their answer. First, they measured the mass of the balloon without helium. The flattened balloon weighed 68.4 grams. Next, they used a hand pump to put helium into the balloon. They pumped the hand pump 20 times. They measured the mass of the balloon and helium to be 84.9 grams. They let the helium out of the balloon and repeated the steps two more times. The second time the flattened balloon weighed 68.6 grams. The balloon with helium weighed 85.1 grams. The third time, the flattened balloon weighed 68.5 grams and the balloon with the helium weighed 85.0 grams.

1. What was the dependent variable in Pete and Ariel's experiment?
 - A. the type of balloon
 - B. the color of the balloon
 - C. the condition of the balloon
 - D. the mass of the balloon
2. What was the independent variable in Pete and Ariel's experiment?
 - A. the type of balloon
 - B. the color of the balloon
 - C. the condition of the balloon
 - D. the mass of the balloon
3. How many trials did Pete and Ariel complete during their experiment?
 - A. 1
 - B. 2
 - C. 3
 - D. 4

4. How did Pete and Ariel make sure they had a well-designed and valid experiment?

- A. They made sure they used all the proper equipment and followed the correct lab safety rules.
- B. They used the same balloon and filled it with 20 pumps of helium for each of the three trials.
- C. They used an electronic scale to measure the mass of the balloon.
- D. They made sure they used the same color balloon for each of the trials.

5. Using Pete and Ariel's data, complete the following data table:

Part IV: Properties of Matter Unit

Part A: Are the following physical or chemical changes? Write P for physical and C for chemical.

- 1. _____ Cutting a piece of paper
- 2. _____ Burning a candle
- 3. _____ Freezing soda
- 4. _____ Adding chocolate syrup to milk
- 5. _____ Action of yeast in bread

Part B: Choose the best answer.

- 1. Melting occurs as a substance changes from a
 - A. solid to a liquid
 - B. liquid to a solid
 - C. liquid to a gas
 - D. gas to a solid

2. Freezing occurs as a substance changes from a
 - A. solid to a liquid
 - B. liquid to a solid
 - C. liquid to a gas
 - D. gas to a solid

3. Boiling occurs as a substance changes from a
 - A. solid to a liquid
 - B. liquid to a solid
 - C. liquid to a gas
 - D. gas to a solid

4. Which of the following describes a solid?
 - A. definite shape and definite volume
 - B. no definite shape but has definite volume
 - C. no definite shape and no definite volume

5. Which of the following describes a liquid?
 - A. definite shape and definite volume
 - B. no definite shape but has definite volume
 - C. no definite shape and no definite volume

6. Which of the following describes a gas?
 - A. definite shape and definite volume
 - B. no definite shape but has definite volume
 - C. no definite shape and no definite volume

Part C: Use the data below to answer questions 1 - 4. This information is from the "Density" lab we did in class.

Density, Boiling Point, and Melting Point of Common Substances

Substance	Property		
	Density g/cm ³	Melting Point °C	Boiling Point °C
Dishwashing Liquid	1.3	8	203
Vegetable Oil	0.7	-42	156
Strawberry Shampoo	1.0	15	189
Rubber Stopper	1.2	205	453

1. Which substance is the least dense?

- A. Rubber stopper
- B. Strawberry shampoo
- C. Dishwashing liquid
- D. Vegetable oil

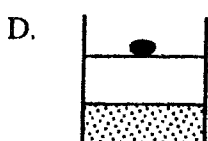
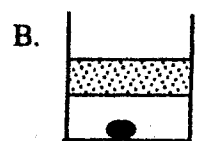
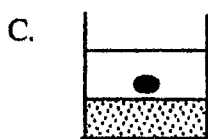
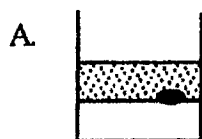
2. Which substance would still be solid at a temperature of 55 C?

- A. Vegetable oil
- B. Rubber stopper
- C. Dishwashing liquid
- D. Strawberry shampoo

3. At what temperature would all of the substances be a liquid?

- A. 23°C
- B. 225°C
- C. - 113°C
- D. 45°C

4. Which picture shows the correct layering of the rubber stopper, dishwashing liquid and the vegetable oil in the graduated cylinder?



Key:

- = Rubber Stopper
- ▨ = Dishwashing Liquid
- = Vegetable Oil