

Name: _____ Date: _____ Block: _____

Matter Lab Data

Record all observations and lab equipment/glassware used at each station.

	Observations	Lab Equipment/Glassware Used
Station 1		
Station 2		
Station 3		
Station 4		

	Observations	Lab Equipment/Glassware Used
Station 5		
Station 6		
Station 7		
Station 8		

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Matter Lab Post-lab

Station 1: Solution Making

1. Is the resulting solution a homogeneous or heterogeneous mixture? Explain your reasoning.
2. How could the mixture of the water and powder be separated into back into its individual substances?
3. Does your answer to Question #2 represent a physical or chemical separation technique?
4. Based on your answer to Question #3, is the process of dissolving a substance in another substance a physical or chemical change? Explain your reasoning.
5. A solution is made of two parts: solute and solvent. The solute is present in the smaller quantity and is what is being dissolved. The solvent is what is present in the largest quantity and is what the solute dissolves in. Identify the solute and the solvent of the mixture created at Station 1.

Station 2: Tablets in Water

1. When the tablet was added to the water did a physical or chemical change occur? Explain your reasoning.

Station 3: Alcohol, Oil, & Water

1. Is the oil and water mixture homogeneous or heterogeneous? Explain your reasoning.
2. Describe one separation technique that would allow you to physically separate the oil from the water.
3. Is the alcohol and water mixture homogeneous or heterogeneous? Explain your reasoning.
4. Describe one separation technique that would allow you to physically separate the alcohol and water from one another. (hint: consider how fast rubbing alcohol evaporates when applied to your skin)

Station 4: Separating Blue

1. Was the original sample of matter a substance or mixture? If a substance, was it an element or compound? If a mixture, was it homogeneous or heterogeneous? Explain your reasoning.
2. Describe how you were able to separate the blue compound from the rest of the sample.
3. Was a physical or chemical separation technique used to separate the sample?

Station 5: Battery Power

1. Based on your observations, did a physical or chemical change occur? Explain your reasoning.
2. What separation technique was used at this station?

Station 6: Mysterious Ransom Note

1. What separation technique was used at this station?
2. Did the separation technique require a physical or chemical change?
3. Was the sample a substance or mixture? Explain your reasoning.
4. Who wrote the ransom note? Explain your reasoning.

Station 7: Metals and More

1. What separation technique was used at this station?
2. Was the sample a mixture or substance? Explain your reasoning.

Station 8: Salty

1. What separation technique was used at this station?
2. Did the separation technique require a physical or chemical change?
3. Was the sample a substance or mixture? Explain your reasoning.