

Name: \_\_\_\_\_

## Extension 8.1.2 AB

### Properties of Elements virtual labs

Website #1 [http://www.glencoe.com/sites/common\\_assets/science/virtual\\_labs/E21/E21.html](http://www.glencoe.com/sites/common_assets/science/virtual_labs/E21/E21.html)

Read and follow the directions on the left side of the screen. Fill in the following chart:

Mystery Element #	Density	Flame Color	Melting Point	Boiling Point
1				
2				
3				
4				
5				
6				
7				
8				

After completing all of the experiments and filling in the chart, identify the mystery elements:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Questions:

1. How do scientific tests help determine the properties of a substance?
2. How many tests did it take to identify the substance?
3. Describe the process you used to identify each mystery element?
4. Why are some mystery elements easier to identify than others?

Website #2 [http://www.glencoe.com/sites/common\\_assets/science/virtual\\_labs/E03/E03.html](http://www.glencoe.com/sites/common_assets/science/virtual_labs/E03/E03.html)

Select each of the four events. Watch the video (make sure the sound is ON), check the observation checklist, then check the box for physical or chemical change.

Record your observations in the table below.

	Event 1	Event 2	Event 3	Event 4
Describe matter before change.				
Describe shape change.				
Describe color change				
Describe bubbles formed				
Describe odor produced				
Describe heat given off				
Describe size change				
Describe change of state				
Describe new substance				
Describe sound produced				
Describe light produced				
Physical or chemical change				

Analysis:

- 1) Is evaporation of water a physical change or chemical change? Explain your answer.
- 2) List three clues that indicate that a chemical change has taken place.
- 3) Give several examples of chemical changes that you encounter every day. At least 3.
- 4) Explain how a burning candle can demonstrate both a physical and chemical change.