Name: _____ Date: _____ Hour: _____

Is the Balloon and Orange Peel Demo a Chemical Reaction?

Purpose: We have practiced determining if a chemical reaction is taking place and are now ready to apply those skills to our initial balloon and orange peel phenomenon.

Part A: Balloon and Limonene Oil Demo

Background: What part of the orange causes the balloon to pop?

Materials: Inflated balloon Limonene oil Pipette

Procedure:

1. Obtain a balloon and fill it as full as possible with carbon dioxide *(blow it up!).*
2. Record your observations in Table 1, paying close attention to the substances and materials present during set up.
3. Using the pipette, squirt the balloon with 1-2 drops of limonene oil, paying close attention to any signs of a chemical reaction.
4. Record your observations, paying close attention to substances and materials present.

Table 1. Observations	
Substances Before Pop	**Substances During/After Pop**
(Think about: What substances are present during set-up? How do you know?)	*(Think about: What substances are present during and after the reaction? How do you know?)*

Did you observe any signs of a chemical reaction? Explain.

Part B: Scissors and Balloon Demo

Procedure: Observe the demo and complete Table 2 by recording your observations.

Table 2. Observations	
Substances Before Pop	**Substances During/After Pop**
(Think about: What substances are present during set-up? How do you know?)	*(Think about: What substances are present during and after the reaction? How do you know?)*

Did you observe any signs of a chemical reaction? Explain.

Post Demonstration Questions:

1. What do you believe happened to the atoms present before and after the pop in Part A took place? What about Part B?

Part A	Part B

2. Based on your observations, is the balloon and orange peel phenomenon an example of a chemical reaction? Explain.

3. What questions do you now have about this phenomenon?