PARADIGM LAB- Limiting reactant **Initials of all team members:**

Team members absentee agreement regarding absences and/or lack of team production.

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| Signatures of all team members and today’s date: |

OBJECTIVE- To conduct and experiment then calculate the EXACT contents of the jar left after the experiment.

Part 1 Data:

Mass of candle before experiment \_\_\_\_\_\_\_\_g (measured)

Amount of time the candle burned \_\_\_\_\_\_\_s (measured during experiment).

OTHER OBSERVATIONS:



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| Part 2 data:  Volume of container: Describe/explain how you find it.  \*hint- does the candle itself take up volume too? | Describe/explain how you find the volume of just oxygen in this container. |

TEAM MEMBER NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Data analysis:

1. What do you have to do to get the number of moles of O2 that is used up?
2. The candle wax we are using is C7H­16. Describe/explain how you would write a balanced equation for this reaction?
3. Describe/explain how you would find the number of GRAMS of candle wax used up in the reaction.
4. Describe/explain how you would find the number of molecules of CO2 produced.
5. Describe/explain how you would find the number of grams of water produced.
6. In the space below, make a before and after diagram to quantitatively describe your experiment!

Before After