Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_

### Lesson 2.1 Yeast Fermentation Initial Predictions and Explanations Worksheet

You will be doing an investigation of yeast fermenting sugar. Here are the tools you will have:

One digital balance

A large air-tight container

Bromothymol blue (BTB) solution to detect CO2 in the air inside the container

One plastic Petri dish for BTB

A 100 mL beaker containing 1 tsp baker’s yeast and 1 tsp sugar to which you will add 40 - 50 mL of warm water

Make predictions that will help you answer the Location/Movement Question, the Carbon Question, and the Energy Question.

|  |  |
| --- | --- |
| **Predictions about mass changes:** What are your predictions about the yeast solution gaining or losing mass?  What will gain mass?  What will lose mass? | **Predictions about changes in BTB:** Do you think that BTB will change color if it is in a sealed container with the fermenting yeast?  YES NO  What color change do you predict? |
| **The Location/Movement Question: Explaining your predictions about mass changes:** Draw your ideas about how atoms are moving on the picture below. | **The Carbon Question: Explaining your predictions about BTB color changes:** What do you think is happening to molecules that have carbon atoms in them? |
| Where are atoms moving from?  Where are atoms going to? | **The Energy Question: Explaining changes in forms of energy:** How do you think that energy is changing from one form to another? |