

## CELL PROCESSES

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

### A. Station 1: **SMELL THAT BALLOON**

1. Three drops of a flavored liquid was poured into the balloons before they were tied .

2. Lift up on 1 side of the box and write down what you smell \_\_\_\_\_

\_\_\_\_\_

3. What cell process was being demonstrated? \_\_\_\_\_

4. Define it : \_\_\_\_\_

\_\_\_\_\_

### B. Station 2: **FLUFFY RAISINS?**

1. One beaker contains plain raisins and the other beaker contains raisins that have been soaked in water overnight

2. Describe how the two container of raisons differ: \_\_\_\_\_

\_\_\_\_\_

3. What cell process is this? \_\_\_\_\_

4. Define it: \_\_\_\_\_

\_\_\_\_\_

### C. At Your Table: **IN BUT NOT OUT ACTIVITY**

1. Fill 1 beaker half full with water and add 20 drops of iodine (Stains!)

2. Place the sealed bag with cornstarch and water into the beaker of water and iodine

3. Immediately write down the color of the liquid in the bag \_\_\_\_\_ (IGNORE THE BROWN STAIN  
ON THE BAG FROM THE IODINE)

4. After 10 minutes, write down the color of the liquid in the bag \_\_\_\_\_

5. Get some cornstarch and water mixture from the teacher using a small cup

6. Add 1 drop of iodine to the mixture and write down the color of the liquid: \_\_\_\_\_

### **CLEAN OUT THE BEAKER AND CONTAINER AND DISCARD THE BAG**

7. What cell process is this? \_\_\_\_\_

8. Define it \_\_\_\_\_

\_\_\_\_\_

## ENERGY PROCESSES

### A. Station 1: SWIMMING LEAVES

1. Without disturbing the leaves in the bag filled with water, observe the leaves and write down what you see on them \_\_\_\_\_
2. What energy process is this? \_\_\_\_\_
3. Energy is needed for this process to occur, where does it come from? \_\_\_\_\_
4. In what plant cell part does this process take place? \_\_\_\_\_
5. What you observed in the beaker is a waste product, name it \_\_\_\_\_
6. Define it: \_\_\_\_\_
7. Write the chemical reaction using the **words** (not chemical symbols) that show how this process works in plant cells  
\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ --> \_\_\_\_\_ + \_\_\_\_\_

### B. At Your Table: BUBBLES IN THE COLORED WATER

1. Add 5 drops of bromothymol blue (a carbon dioxide indicator) to a beaker half filled with water and record the color: \_\_\_\_\_
2. Using a straw blow GENTLY into the colored water until you note a color change and record the color \_\_\_\_\_  
**DISCARD THE STRAW AND CLEAN OUT THE BEAKER**
3. What energy process is this? \_\_\_\_\_
4. Energy is needed for this process to occur, where does it come from? \_\_\_\_\_
5. In what cell part does this process become complete? \_\_\_\_\_
6. The color change you recorded in #2 represents one of the products of this process. Name this product \_\_\_\_\_
7. Define it: \_\_\_\_\_
8. Write the chemical reaction using the words (not chemical symbols) that shows how this process works in your cells  
\_\_\_\_\_ + \_\_\_\_\_ --> \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

### D. Station 2: HOT AIR BALLOON!

1. Bottle A has warm water, yeast, and sugar in it. A deflated balloon was placed over the opening.
2. Bottle B has warm water and yeast in it. A deflated balloon was placed over the opening.
3. Describe how the balloon over Bottle A differs from the balloon over Bottle B: \_\_\_\_\_  
\_\_\_\_\_
4. What energy process is being demonstrated to cause the differences you observed in #3?  
\_\_\_\_\_
5. Energy is needed for this process to occur, where does it come from? \_\_\_\_\_
6. Define it: \_\_\_\_\_
7. What is the major difference between this energy process and the one on page 50? (How does it work differently)? \_\_\_\_\_