**Photosynthesis and Respiration, Part 2: Experimental Design**

**BACKGROUND**: Over the last week, you have played around with the rates of photosynthesis and respiration in spinach leaves. You looked at the rate of O2 and CO2 consumption and production in both the light and dark conditions, and used that to determine when each process was taking place.

Now, you will be designing your own experiment! Choose one of the investigative questions from your Graphic organizer to design your lab around. Use all the information from the flow chart to create a detailed, and scientifically valid experiment.

**LAB PACKET SETUP:**

Title, name, date, partners

Page 1 – Investigative question, hypothesis, variables, groups, manipulations, list of materials

Page 2 – Draw and label a diagram of your experimental set-up

Page 3 – Procedure

Page 1: Page 2: Page 3:

**Photosynthesis and Respiration Experimental Design Lab**

Your name

Date

Period

Investigative Question:

Hypothesis:

Variables:

Manipulated Variable:

Responding Variable:

Controlled Variables: 1-

2-

Groups:

Control:

Experimental:

Manipulations: 1.

2.

3.

Materials:

Experimental Setup:

Control Group:

Manipulation 1

Manipulation 2

Manipulation 3

**Procedure:**

1. Ect…