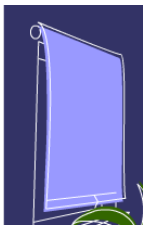
Illuminating Photosynthesis

Name _____

1. Go to the illuminating photosynthesis website: http://www.pbs.org/wgbh/nova/methuselah/photosynthesis.html#
2. Click on the button that says 'Launch Interactive' – a window will appear**.**
3. Read the Introduction in this window. Then, click on the box that says **"The Cycle"**
   a. Click on the watering can.
   b. Click on the shade.
   c. Click on the little girl.
   d. Draw arrows on the picture to show how all the molecules move into and out of each of the organisms. Label the arrows for each molecule the arrow represents.




   e. Now, click on the shade to keep the light from coming in. What happens to the molecules now?

   f. Open the shade back up and then click on the little girl. What happens with the molecules if you stop the little girl from breathing?

4. Click on the box above that says **"Atomic Shuffle".** Click through each screen answering the questions below.
   a. First screen: Read the *Introduction*.
   b. Second Screen: Plants obtain water
   Where does the plant get water from?

   c. Third Screen: Energy from the Sunlight enters the plant
   What does the energy from the sun do to the molecules of water? Where does the oxygen go?

   d. Fourth Screen: Carbon Dioxide enters the plant
   How does carbon dioxide get in the plant?

Where does the carbon dioxide come from?

e. *Fifth Screen: The formation of water*
How does the plant make water molecules?

f. *Sixth Screen: The formation of glucose*
What does the plant use to make glucose?

Where do the H's come from?

Where do the C's come from?

Where do the O's come from?

g. *Seventh screen:* Write the chemical equation that explains what happens during photosynthesis.

5. Click on the box above that says **"The Three Puzzlers"**
   a. Choose an answer to the question, then answer: How much oxygen does the average tree produce?

   b. Click box 2 in the bottom of the screen. Choose an answer to the question, then answer: Where do plants get their food from?

   c. Click box 2 in the bottom of the screen. Choose an answer to the question, then answer: Why does a plant produce oxygen?

   What does a plant use oxygen for?