

Name: _____

Date: _____

How Does Energy Change Form?

Objective:

The goal of this activity is to trace the path of energy as it moves through a Thanksgiving food web. You will document the changes in form as energy moves from the sun to the human guests at the Thanksgiving dinner table.

Instructions:

Use the diagrams of photosynthesis and cellular respiration and the questions below as guides.

Questions:

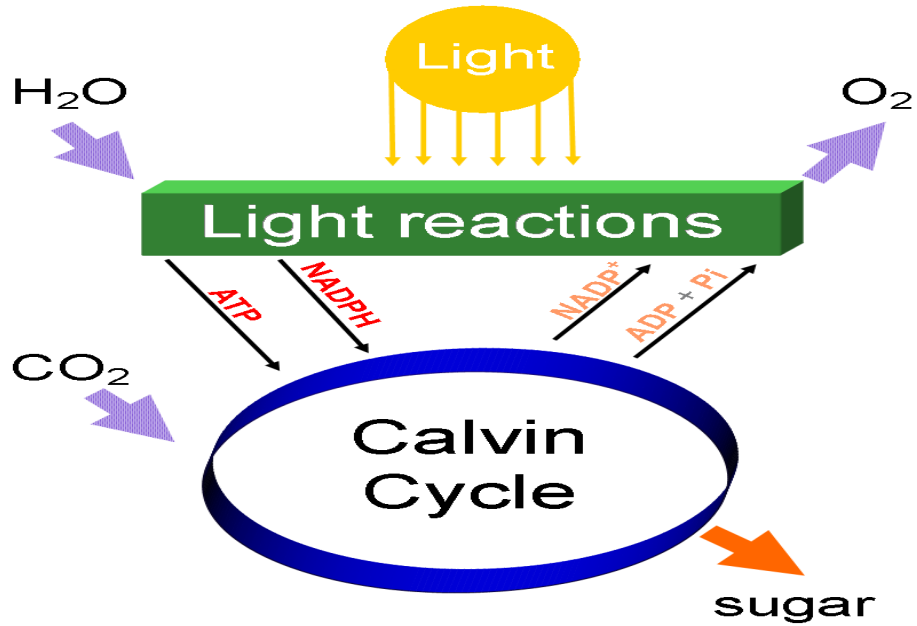
1. Photosynthesis occurs in two separate stages. The first stage requires light, so it's called the "light dependent" stage. What happens to the energy from the sun (photons) during this stage? Describe its change in form. HINT: A good way to think about the light dependent stage is to think of it as the "energy building" stage.

2. The second stage of photosynthesis is called the Calvin Cycle. The Calvin Cycle can occur any time of day or night, so it's sometimes called the "light independent" stage. The Calvin Cycle picks up where the light dependent stage left off, transferring energy from one type of molecule to another. In what form is energy stored at the end of the Calvin Cycle? HINT: A good way to think about the Calvin Cycle is to consider it the "sugar building" stage.

3. What is the purpose of cellular respiration?

4. During cellular respiration the energy of one molecule gets passed on to another molecule. Which energy molecule does cellular respiration start with? Which energy molecule does it end with?

PHOTOSYNTHESIS Diagram



CELLULAR RESPIRATION Diagram

