

InterActive Biology Question Sheet
Episode 9.2 Photosynthesis

1. What is the process of photosynthesis?

2. Fill in the table below.

Phase of Photosynthesis	Product Produced in Each	Where Does It Occur in the Cell?

3. What is a pigment? What is the most common pigments in chloroplasts?

4. Why do green plants appear green?

5. Put the following steps in order to describe the general steps in the process of photosynthesis. For the first step, write the number one in the blank, for the second step write the number two and so on.

_____ light dependent reactions

_____ light energy

_____ light independent reactions

_____ stored energy

6. Complete the following paragraph.

A light _____ reaction involves _____ striking molecules of _____ and exciting an _____. In order to replenish the supply of _____ for the chlorophyll molecule two _____ are broken down into _____ electrons, two _____ molecules (O_2) and _____ hydrogen atoms (H^+).

7. Complete the following paragraph.

The _____ transport chain is a series of _____ found in the _____ membrane of the _____. The _____ is passed down _____ different chains, losing _____ as it goes. As

the electron moves down the chain, it provides enough energy to produce molecules of _____ . The spare electron is picked up by the molecule _____ and forms _____, which is an electron carrier. The ATP and NADPH formed in the light dependent reactions so into the _____.

8. Where do the hydrogens and the oxygen from the water molecule end up at the end of the light dependent reaction?

9. Complete the following paragraph.

The light-independent reaction does not require _____. It takes the _____ from the _____ reaction and turns them into _____, _____ and/or _____. This reaction is also called the _____ cycle. This reaction uses _____ from the atmosphere and _____ from rain or from watering the plants. It uses _____ and _____ from the light reaction to produce two 3-carbon chemicals called _____ that will combine to form _____.

10. What is the general equation for the process of photosynthesis?

11. Write out the general equation for photosynthesis in words.