Chlorophyll is the main photosynthetic pigment

7. An (a)_____ is a graph that illustrates the relative absorption of different wavelengths of light by a given pigment. It is obtained with an instrument called a (b)_____.
8. The (a)_____ of photosynthesis is a measurement of the relative effectiveness of different wavelengths of light in affecting photosynthesis. It may be greater than can be accounted for by the absorption of chlorophyll alone, the difference accounted for by (b)_____ that transfer energy absorbed from the green wavelengths to chlorophyll.

OVERVIEW OF PHOTOSYNTHESIS

ATP and NADPH are the products of the light-dependent reactions: an overview

9. Light-dependent reactions provide useful chemical energy for _____ of photosynthetic products.

Carbohydrates are produced during the carbon fixation reactions: an overview

10. Light-independent reactions transfer the energy from (a)_____ to the bonds in (b)_____ molecules.

THE LIGHT-DEPENDENT REACTIONS

Photosystems I and II each consist of a reaction center and multiple antenna complexes

11. The light-dependent reactions of photosynthesis begin when _____ and/or accessory pigments absorb light.
12. Chlorophylls *a* and *b* and accessory pigment molecules are organized with pigment-binding proteins in the thylakoids membrane into units called _____.
13. Each antenna complex absorbs light energy and transfers it to the _____, which consists of chlorophyll molecules and proteins.
14. Light energy is converted to chemical energy in the reaction centers by a series of _____.
15. The reaction center of photosystem II is made up of a chlorophyll *a* molecule with an absorption peak of about 680 nm and is referred to as _____.
16. When a pigment molecule absorbs light energy, that energy is passed from one pigment molecule to another until it reaches the _____.

Noncyclic electron transport produces ATP and NADPH

17. In noncyclic electron transport, the energized electron is passed along an electron transport chain from one electron acceptor to another, until it is passed to _____, and iron-containing protein.
18. Like photosystem I, photosystem II is activated when a pigment molecule in an _____ absorbs a photon of light energy.
19. _____ is a process that not only yields electrons, but is also the source of almost all the oxygen in the Earth's atmosphere.