

Photosynthesis Review Worksheet

Part A

Match the terms below with the correct description

Chlorophyll
Chloroplast
Electromagnetic spectrum
Electron transport chain
Grana
Light-dependant reactions
Calvin Cycle
Photon
Photosynthesis
Photosystem
Stroma
Thylakoid

- a. _____ **Photon** _____ packet of solar energy
- b. **Light-dependant reactions** energy-capturing portion of photosynthesis that takes place in thylakoid membranes of chloroplasts and cannot proceed without solar energy, it produces ATP and NADPH
- c. **Chlorophyll** green pigment that absorbs solar energy and is important in photosynthesis
- d. **Stroma** large, central compartment in a chloroplast that is fluid filled and contains enzymes used in photosynthesis
- e. **Chloroplast** membrane-bounded organelle with chlorophyll – containing membranous thylakoids; where photosynthesis takes place
- f. **Photosystem** Photosynthetic unit where solar energy is absorbed and high-energy electrons are generated; contains a pigment complex and an electron acceptor
- g. **ETC** Passage of electrons along a series of carrier molecules from a higher to a lower energy level; the energy released is used for the synthesis of ATP.
- h. **Photosynthesis** Process usually occurring within chloroplasts whereby chlorophyll traps solar energy and carbon dioxide is reduced to a carbohydrate.
- i. **Photosystem** Series of reactions in which light is captured to provide the energy to fix carbon dioxide into glucose in the chloroplast.
- j. **Calvin cycle** Synthesis portion of photosynthesis that takes place in the stroma of chloroplasts and does not directly require solar energy; it uses the products of the light dependant reactions to reduce carbon dioxide to a carbohydrate