Lecture Title: Introduction to Photosynthesis

Photosynthesis is a fundamental biological process through which green plants, algae, and some bacteria convert light energy, usually from the sun, into chemical energy stored in glucose. This process is vital for life on Earth as it provides the primary source of energy for nearly all organisms.

The process takes place in the chloroplasts of plant cells, which contain a green pigment called chlorophyll. Chlorophyll absorbs light energy, particularly in the blue and red wavelengths, and uses it to initiate a series of reactions.