). Photosynthesis is a process used by plants and other organisms to convert light energy, normally from the Sun, into chemical energy that can be used to fuel the organisms' activities. Photosynthesis can take place in either the presence of oxygen (aerobic) or in the absence of oxygen (anaerobic). During photosynthesis, light energy is converted into chemical energy in the form of sugars and other organic compounds. Carbon dioxide from the air is used, along with water, to produce glucose, a simple sugar. Oxygen is produced as a byproduct.