Photosynthesis is a process used by plants and other organisms to convert light energy, typically from the sun, into chemical energy that can be used to fuel the organism's activities. During photosynthesis, light energy is used to convert carbon dioxide and water into glucose and oxygen. The glucose produced can be used as energy for the organism, while the oxygen is released back into the atmosphere. Photosynthesis is the primary process by which plants and other autotrophs produce their own food, and it is essential for most life on Earth.