

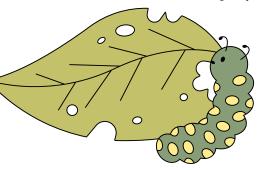
## Energy Flow in Organisms

SOLAR ENERGY

The sun's role in trophic levels is to provide the initial source of energy for primary producers, which forms the foundation of most food chains and food webs.

Producers, which are typically plants and other photosynthetic organisms, use the sun's energy to convert carbon dioxide and water into glucose (sugar) and oxygen through photosynthesis.





## PRIMARY CONSUMER

The primary consumer is the first organism in a food chain to directly consume a producer. By consuming primary producers, they gain the energy that the producer had captured through photosynthesis.

The secondary consumer is an organism that directly consumes primary consumers. By consuming primary consumers, they gain the energy that the primary consumers had gained from consuming producers.





TERTIARY CONSUMER

The tertiary consumer is an organism that directly consumes secondary consumers. They are typically apex predators, meaning they are at the top of the food chain and have no natural predators.