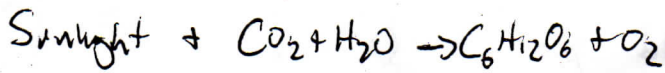


Photosynthesis

Makes Food
↳ Glucose

Requires: Sunlight
Carbon Dioxide
Water

Produces: Glucose
Oxygen



PLANTS ONLY!

OCCURS IN CHLOROPLAST



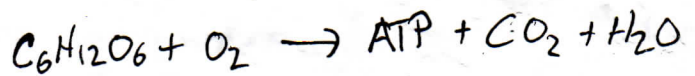
V. Cellular Respiration

Releases Energy
↳ Energy is stored
in the chemical
bonds of carbohydrates

Requires: Glucose
Oxygen

Sugars ARE
Carbs

Produces: Energy (ATP) → A Molecule
Carbon Dioxide
Water



"OPPOSITE" Reactions

ALL TYPES OF CELLS
PLANT + ANIMALS

OCCURS in Mitochondria



ORGANIC Compounds + Indicators

Carbohydrates → Sugar + Starch

Benedict's Solution → Glucose
↳ Lt. Blue → orange
(HEAT)

Lugol's Iodine Solution

Brown/Yellow

↓
Black Purple

- Starch CANNOT diffuse too large

- Glucose CAN diffuse

Lipids → Fatty Acids → build Fats → store energy

Proteins → Amino Acids → build Proteins
↳ Enzymes

Diffusion/Osmosis

Spread out ←
from ↑ to ↓
concentration

↳ Diffusion
across a
Membrane

Small things diffuse
easier than
Large Things