

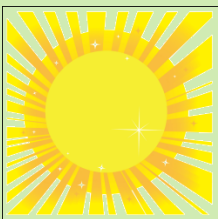
Photosynthesis

All living things obtain energy from sunlight.

Some living things obtain sunlight directly from the sun, some indirectly.

Sunlight → Plants → Herbivore → Carnivore

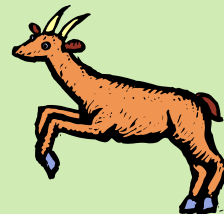
Sun shines on the grass → a gazelle eats the grass
→ and a cheetah eats the gazelle



Shines
on



Eaten
by



Eaten
by



Photosynthesis:

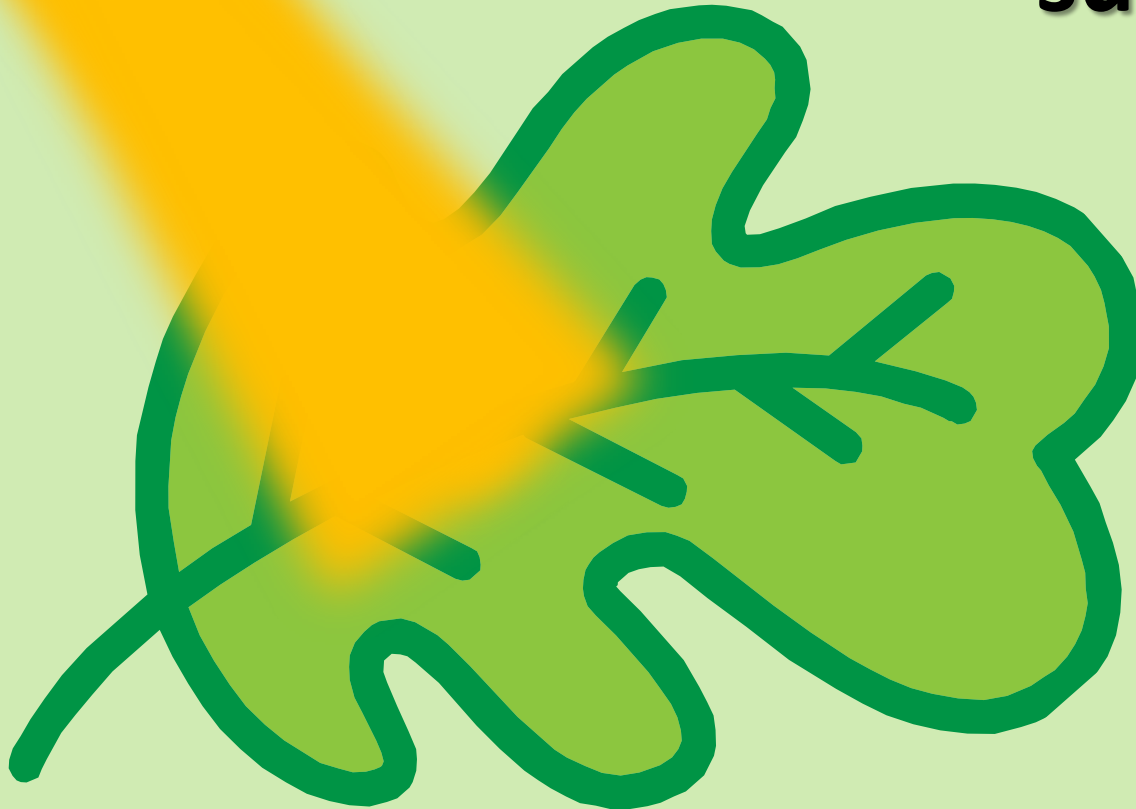
Plants use energy from the sun to convert carbon dioxide and water into oxygen and sugars.



It all starts with
Sun light!

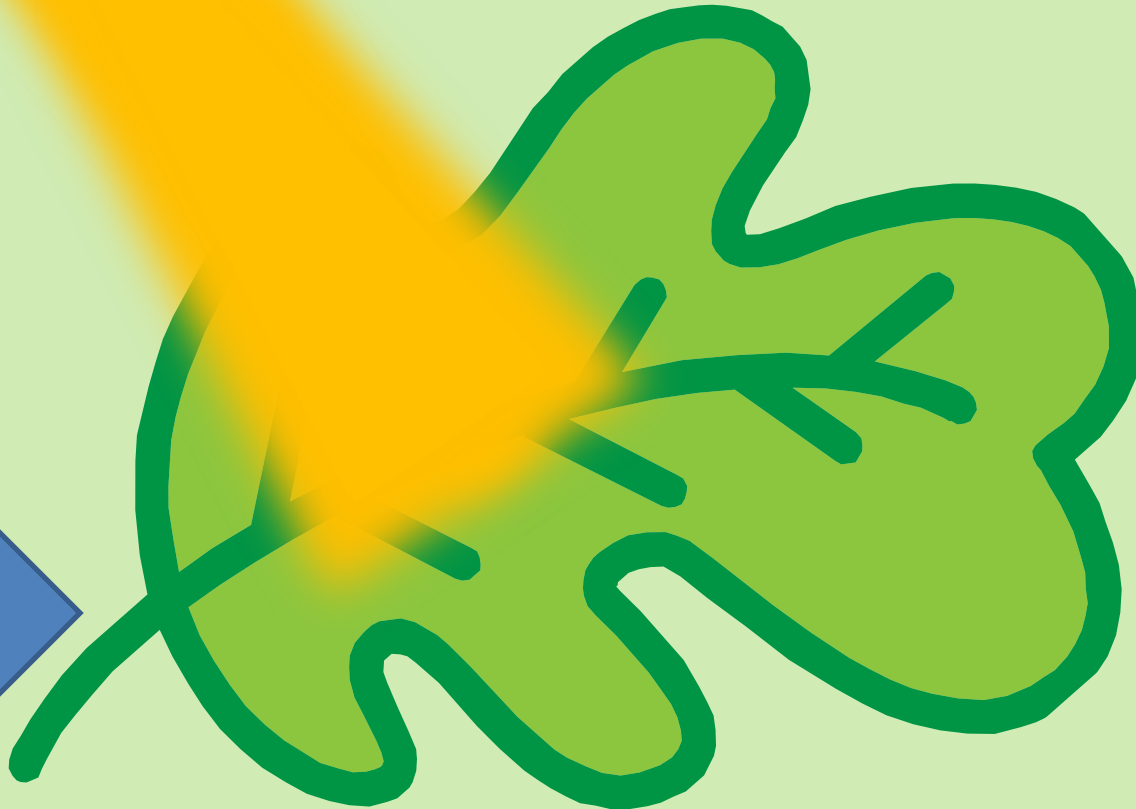


Chloroplasts from the leaf cells capture the energy from the **sunlight**



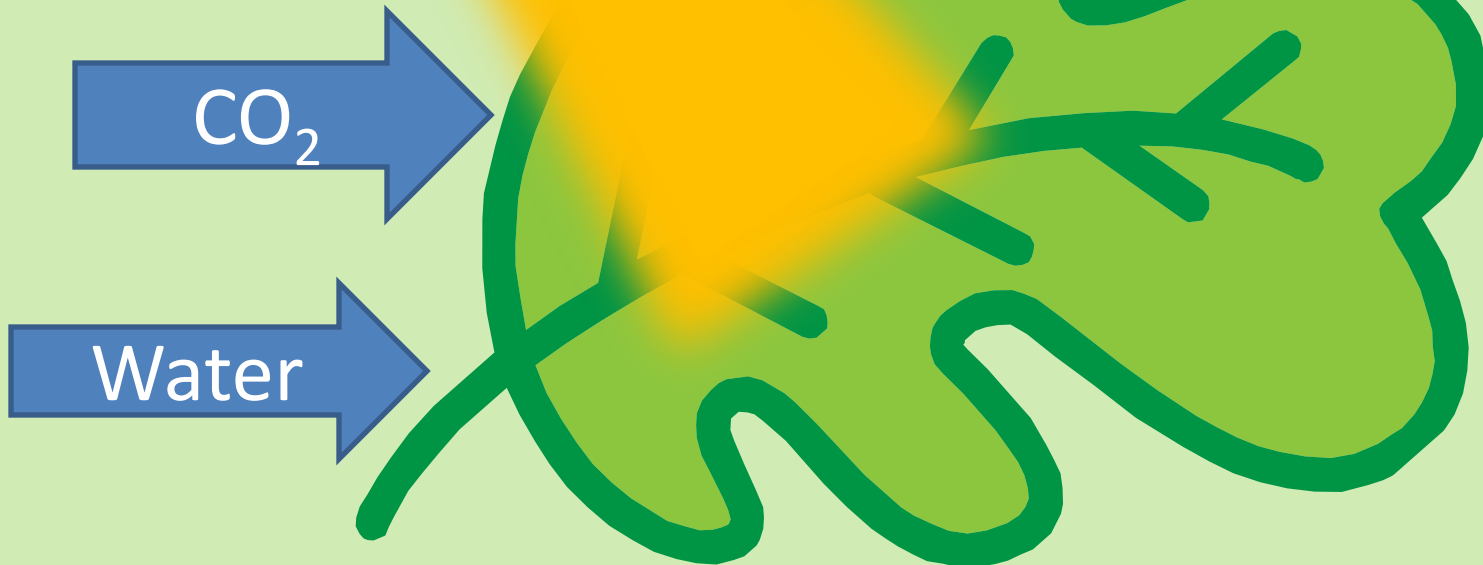


The plant pulls in
water from the roots
and leaves



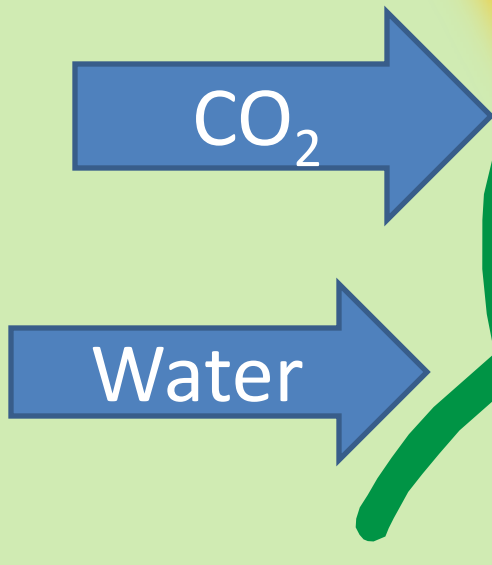


Carbon Dioxide (CO_2)
enters the leaf
through openings in
the stomata



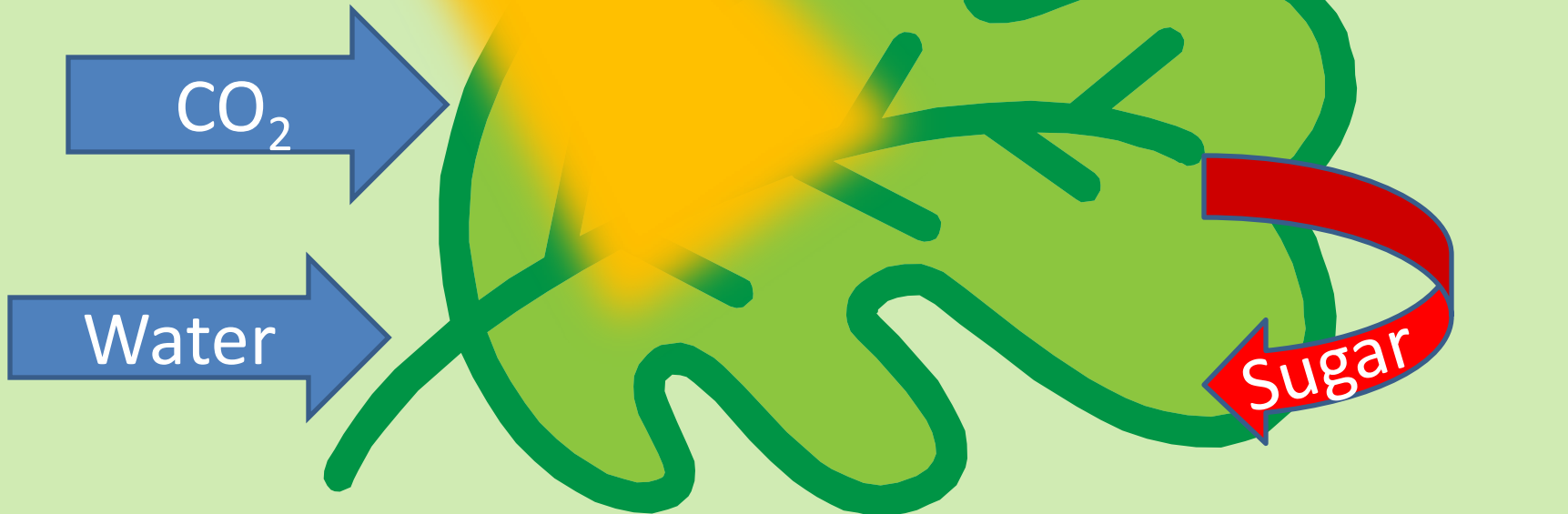


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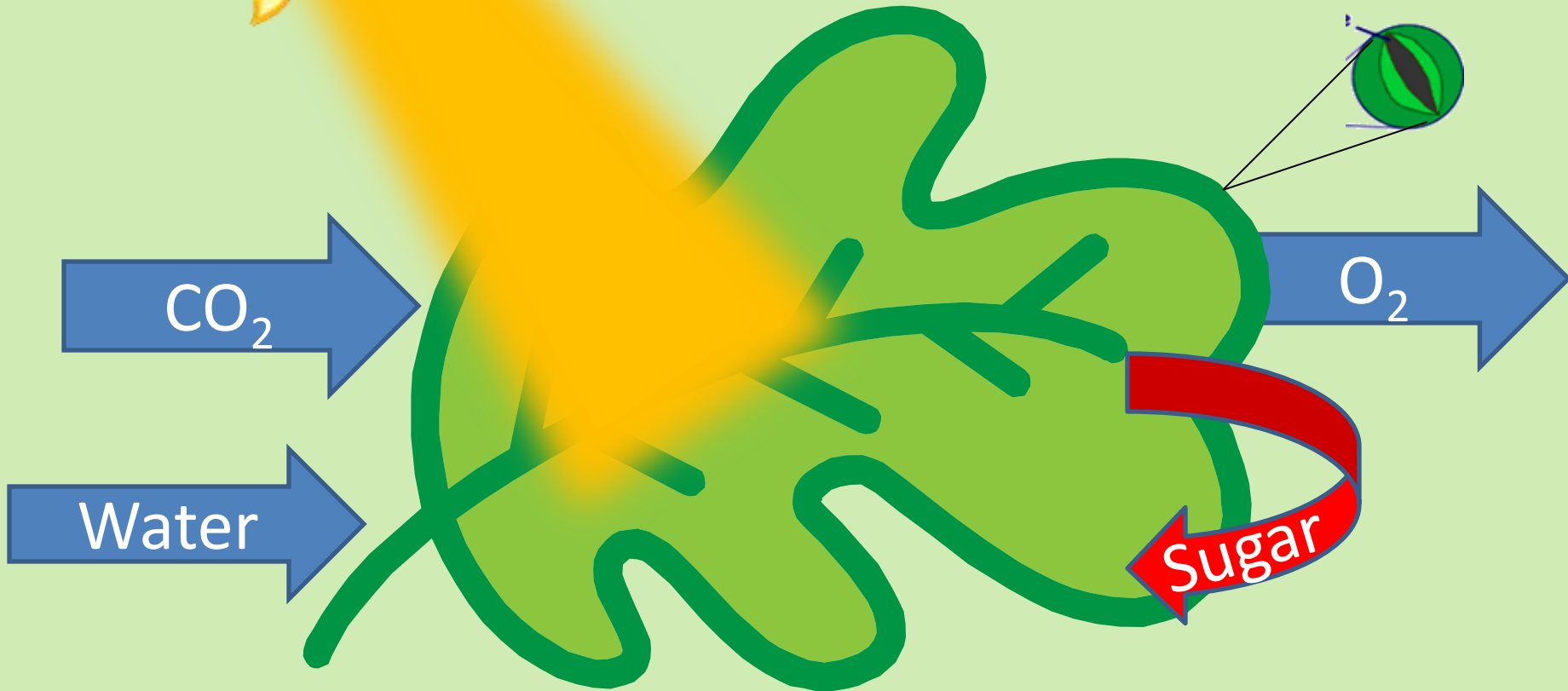


Sugar is produced and used by the plant for food.



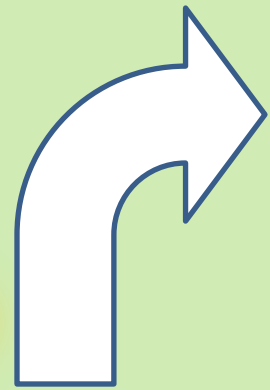


Oxygen is released through the stomata.

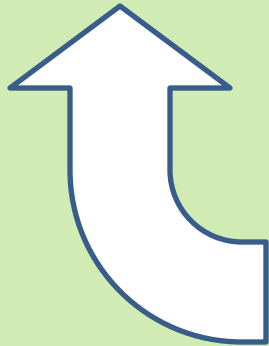




Light Energy



Sugar
Oxygen



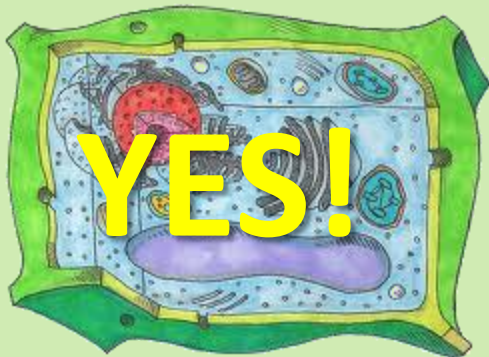
Water
CO₂

Cellular Respiration

Cellular Respiration:

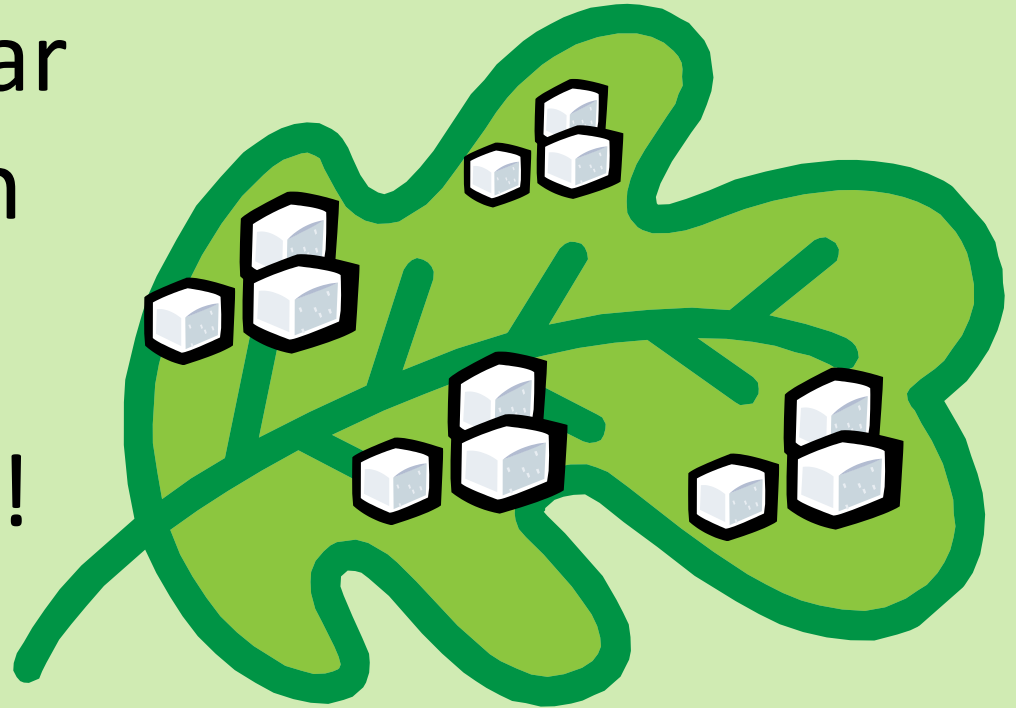
The process by which cells obtain energy from sugar. Cells break down sugar and release the energy they contain.

Both plant cells and animal cells respire!



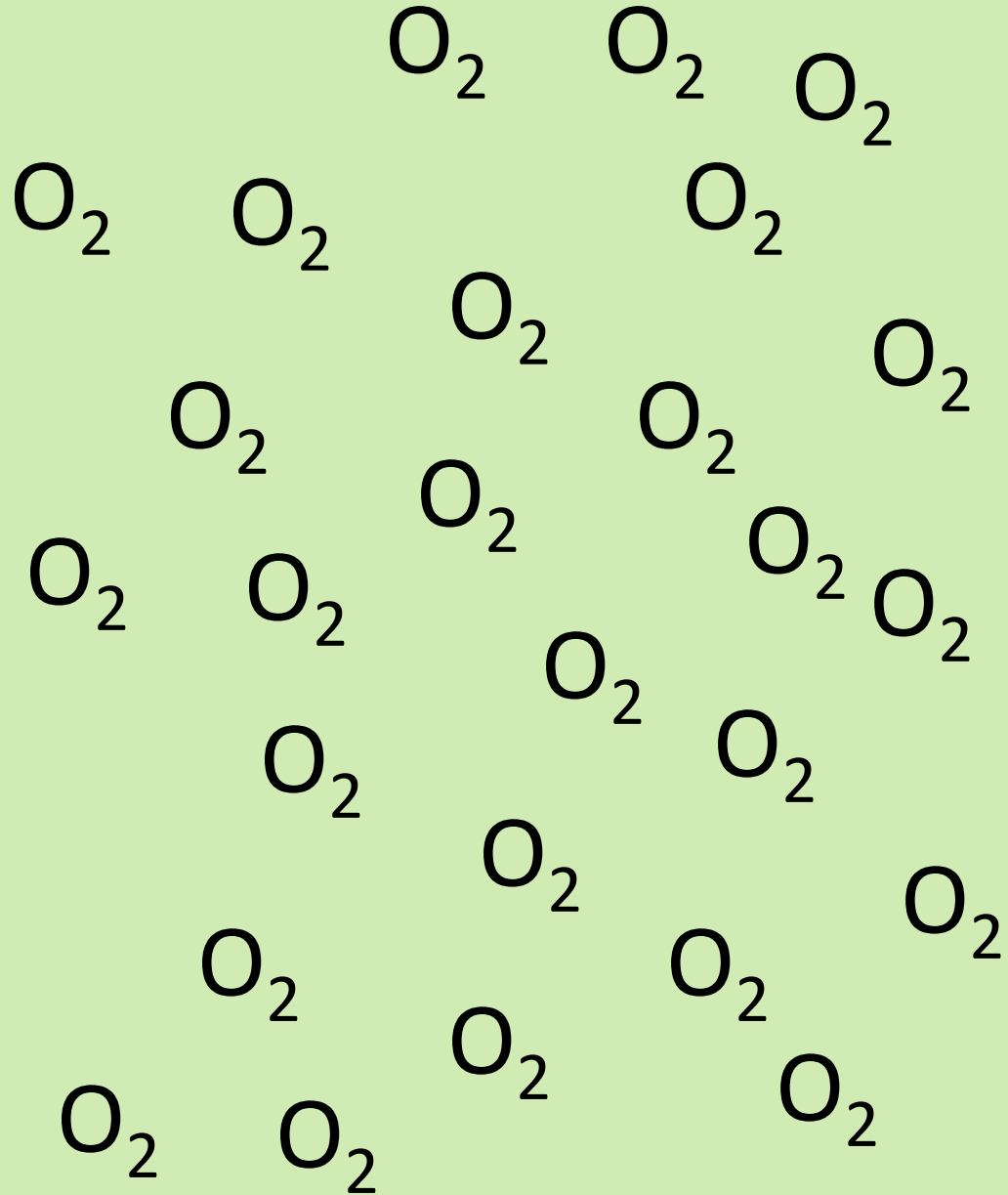
Respiration all
begins with Sugar
that is stored in
the cells.

Plant or animal!

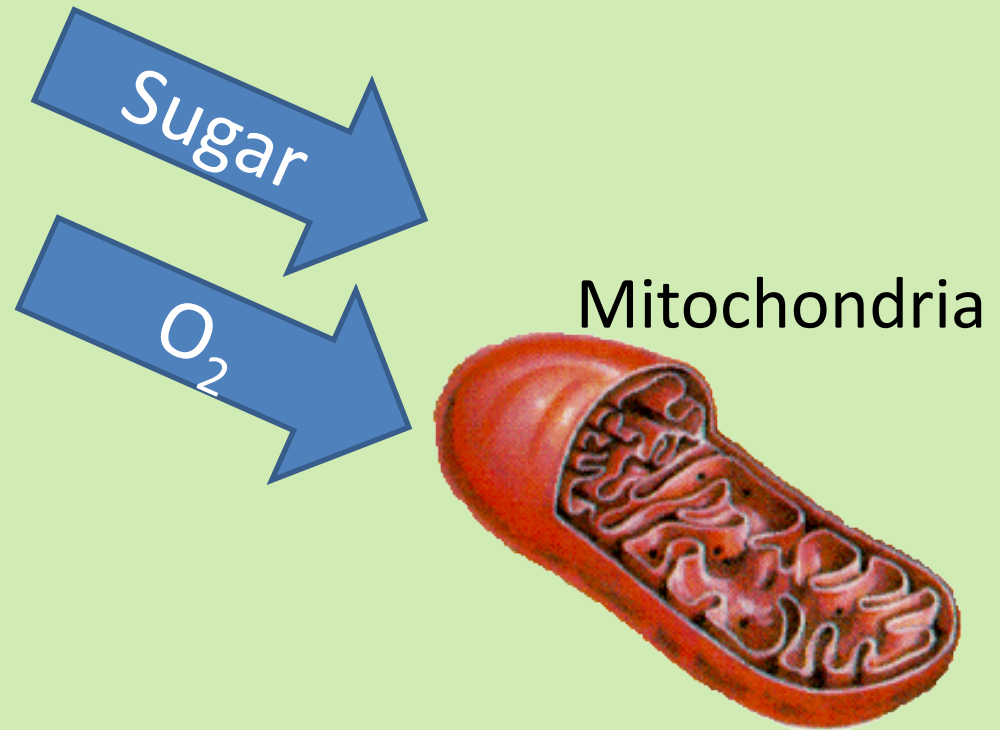


Oxygen is also
required for
cellular
respiration.

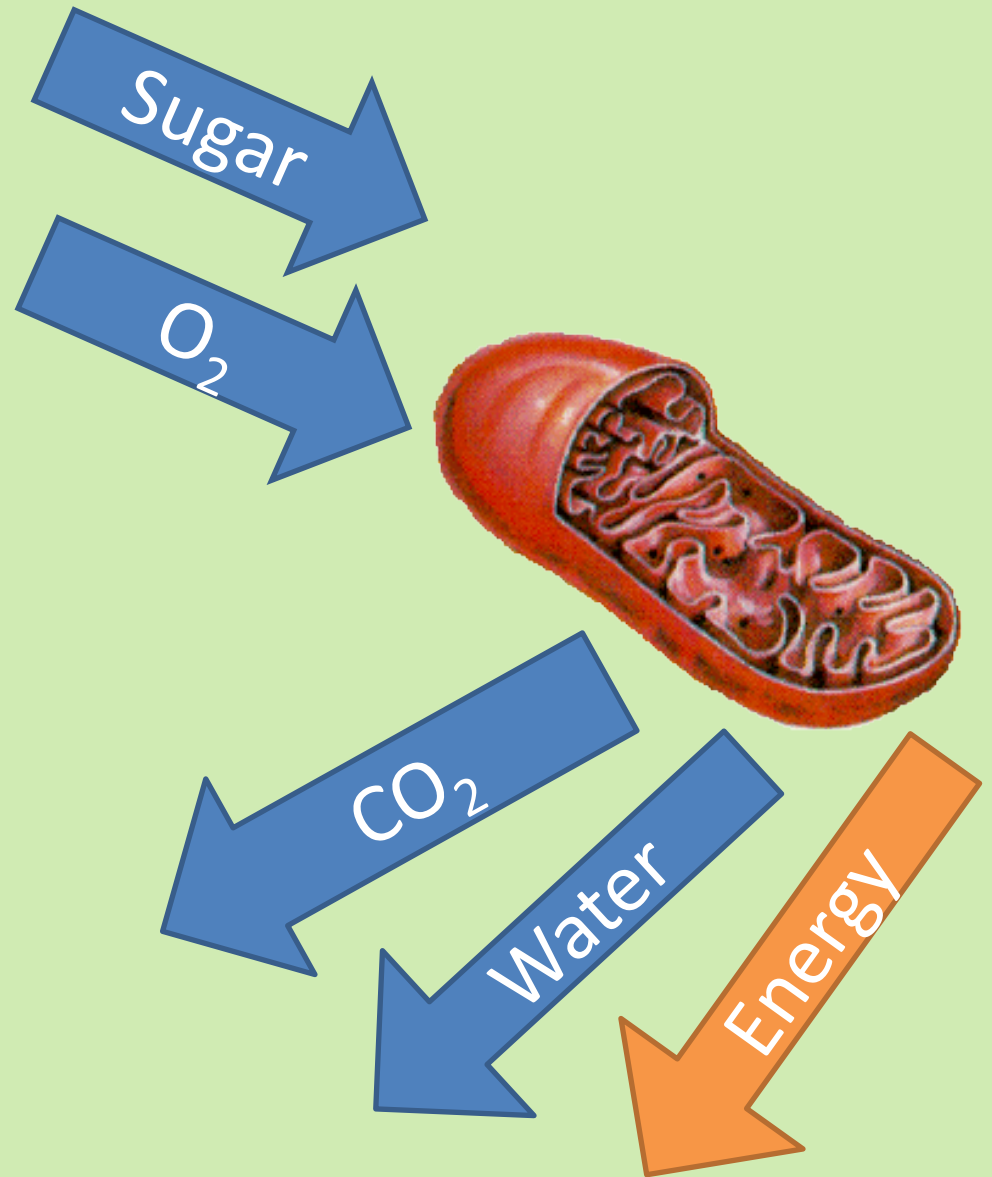
It is inhaled by
the animal and
carried to each
cell.



The mitochondria
take the sugar
and Oxygen
through a
chemical reaction.



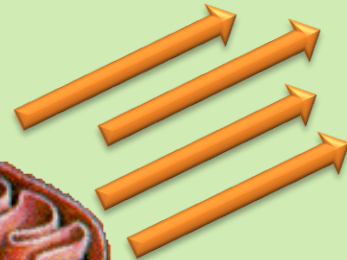
The product of the chemical reaction is Carbon Dioxide, Water, and **Energy**.



Sugar
Oxygen



Energy is
Released



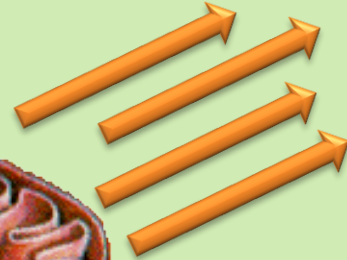
Water
CO₂



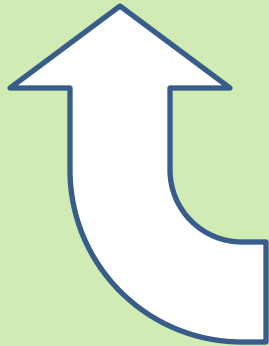
Sugar
Oxygen



Energy is
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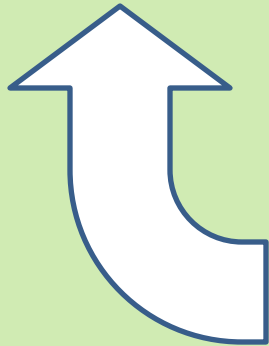
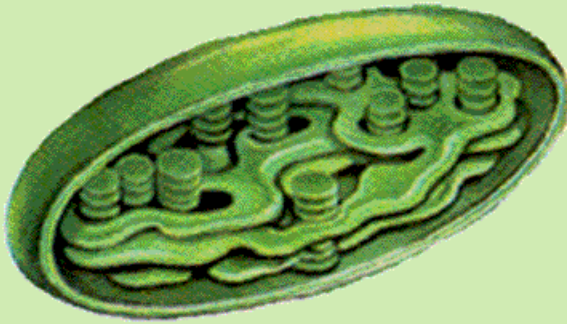
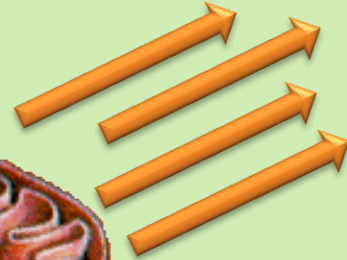
Water
CO₂



Sugar
Oxygen



Energy is
Released



Water
CO₂

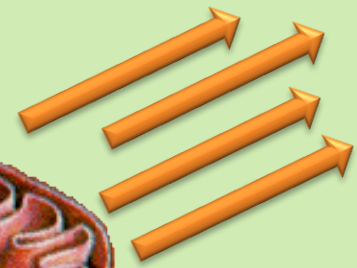




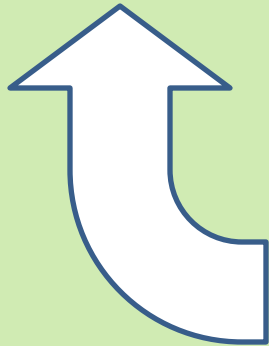
Sugar
Oxygen

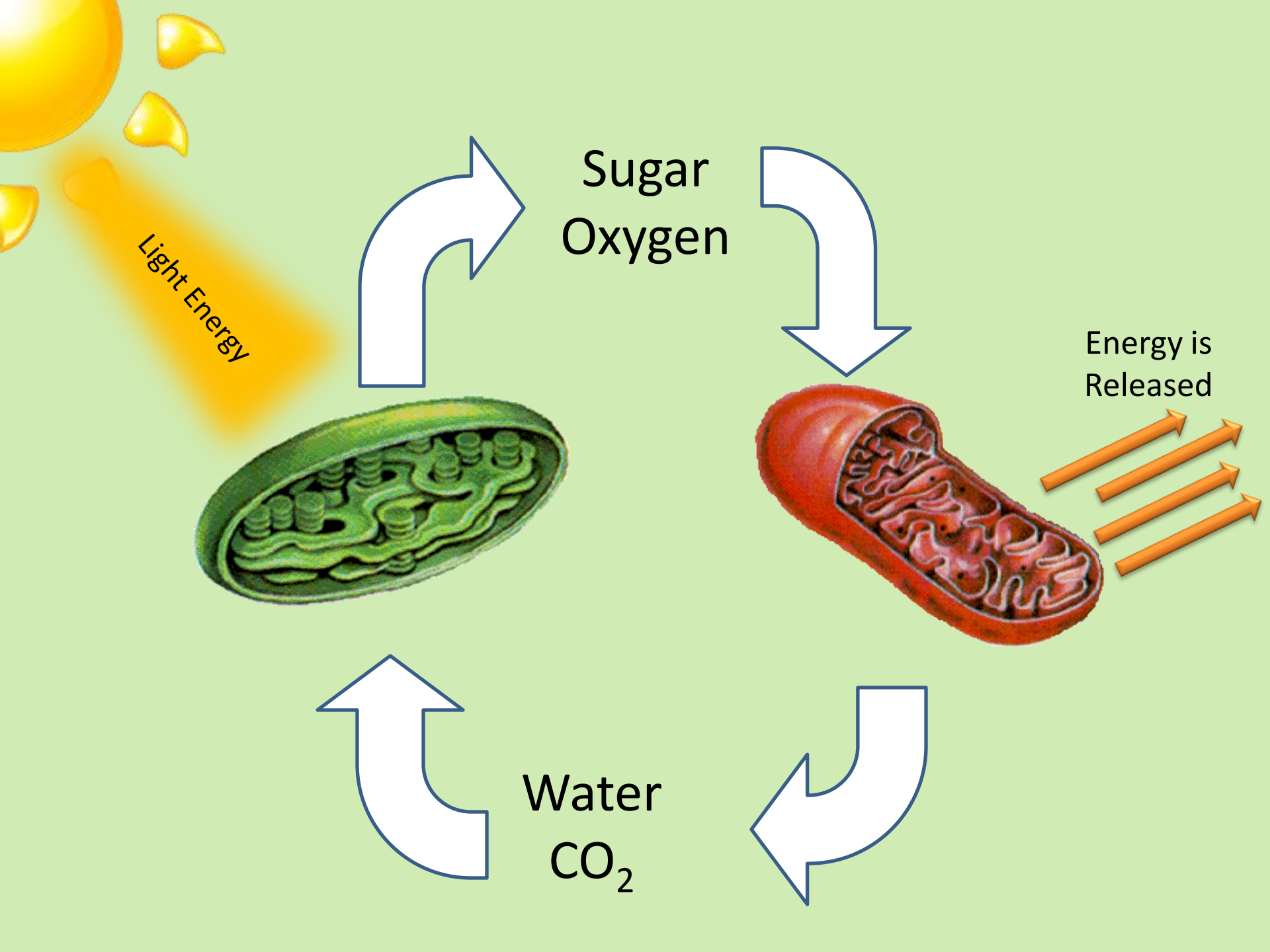


Energy is
Released



Water
CO₂





Light Energy

Sugar
Oxygen

Energy is
Released

Water
CO₂