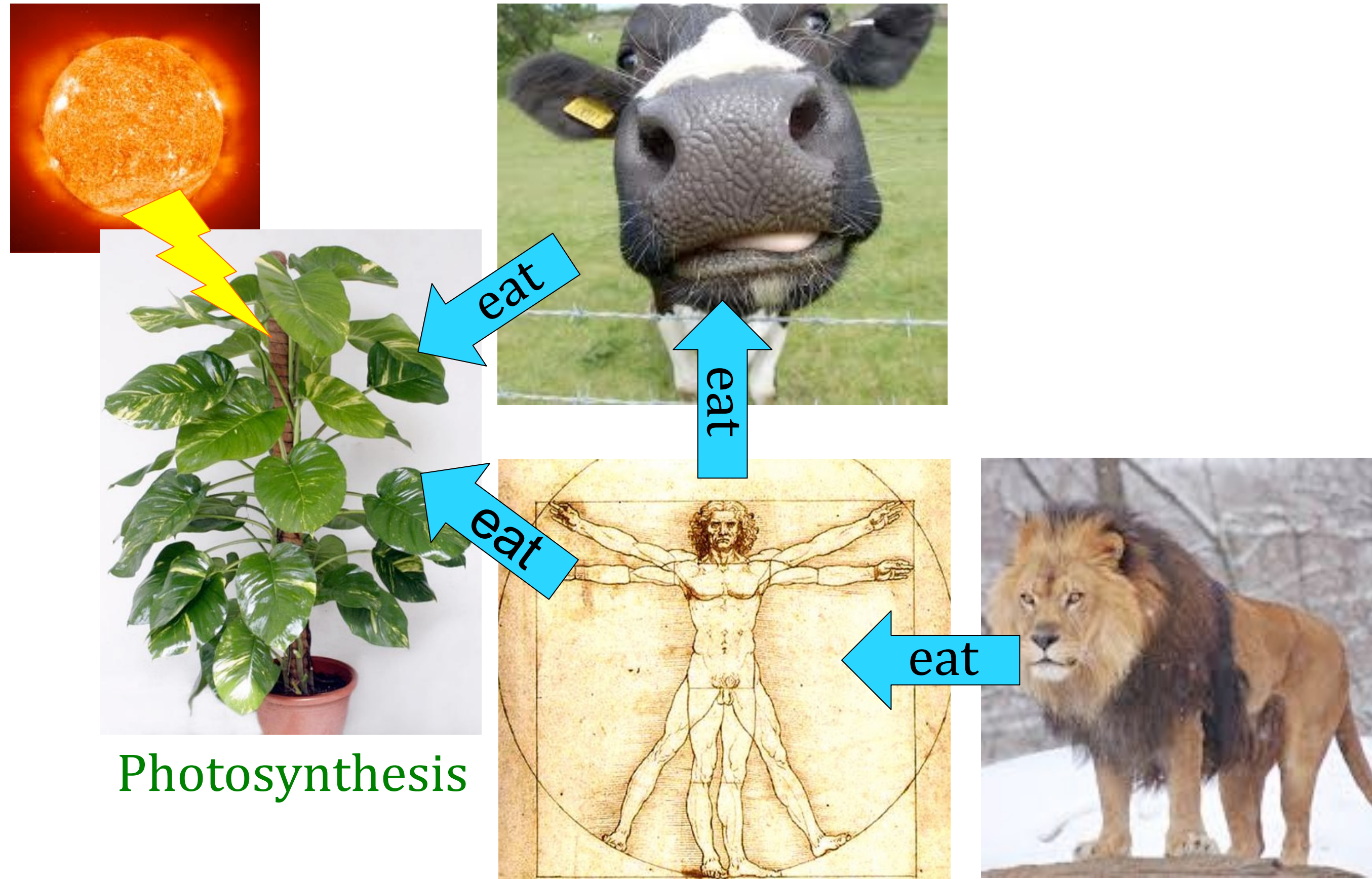
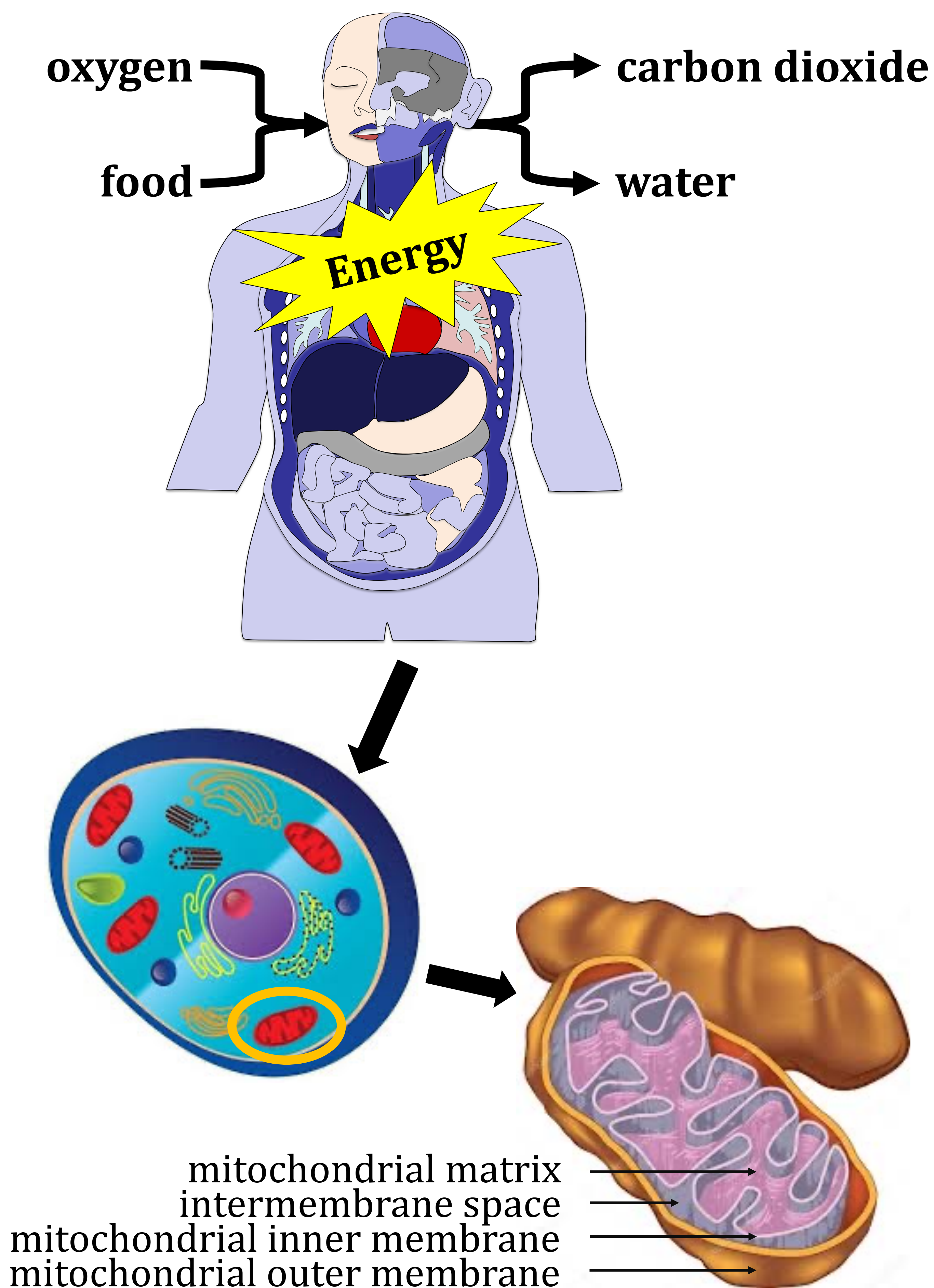


# What do mitochondria do?

- We have to eat to stay alive; this provides us with energy!



- Cells 'burn' sugar and fat in controlled reactions to extract energy
- Mitochondria are involved in this energy conversion



- With the exception of red blood cells, all cells in your body have mitochondria!

- Electrons are removed from the food we eat and transferred through a series of proteins in the mitochondrial inner membrane
- As electrons pass through these proteins, protons (hydrogen ions) are pumped from one side of the membrane to the other
- This 'charges' the membrane like a battery, and provides power to ATP synthase
- ATP synthase produces ATP, the energy currency of the cell!

