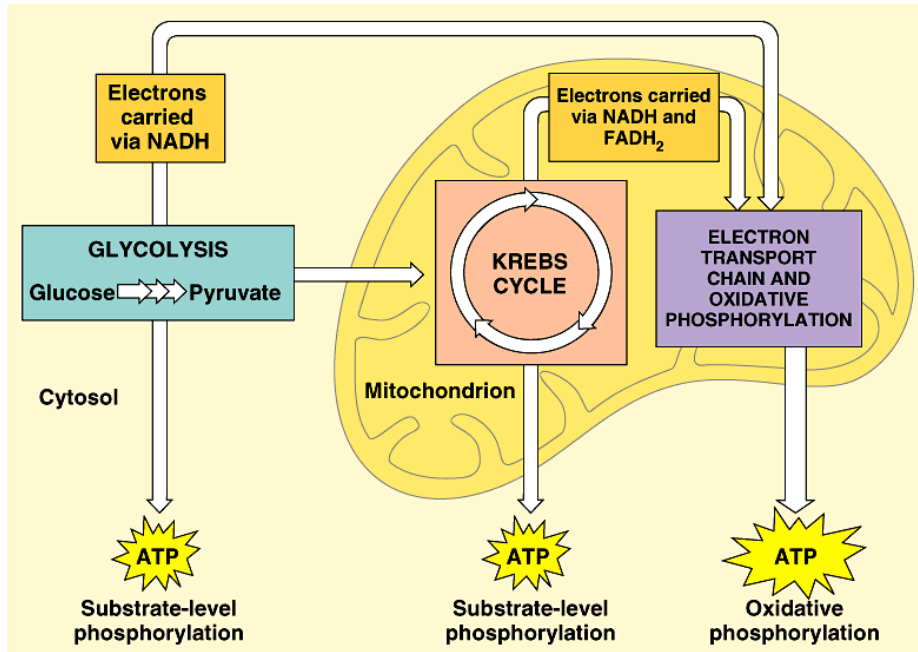


Electron Transport Chain



Glycolysis → ATP
Kreb's cycle → ATP

outer membrane

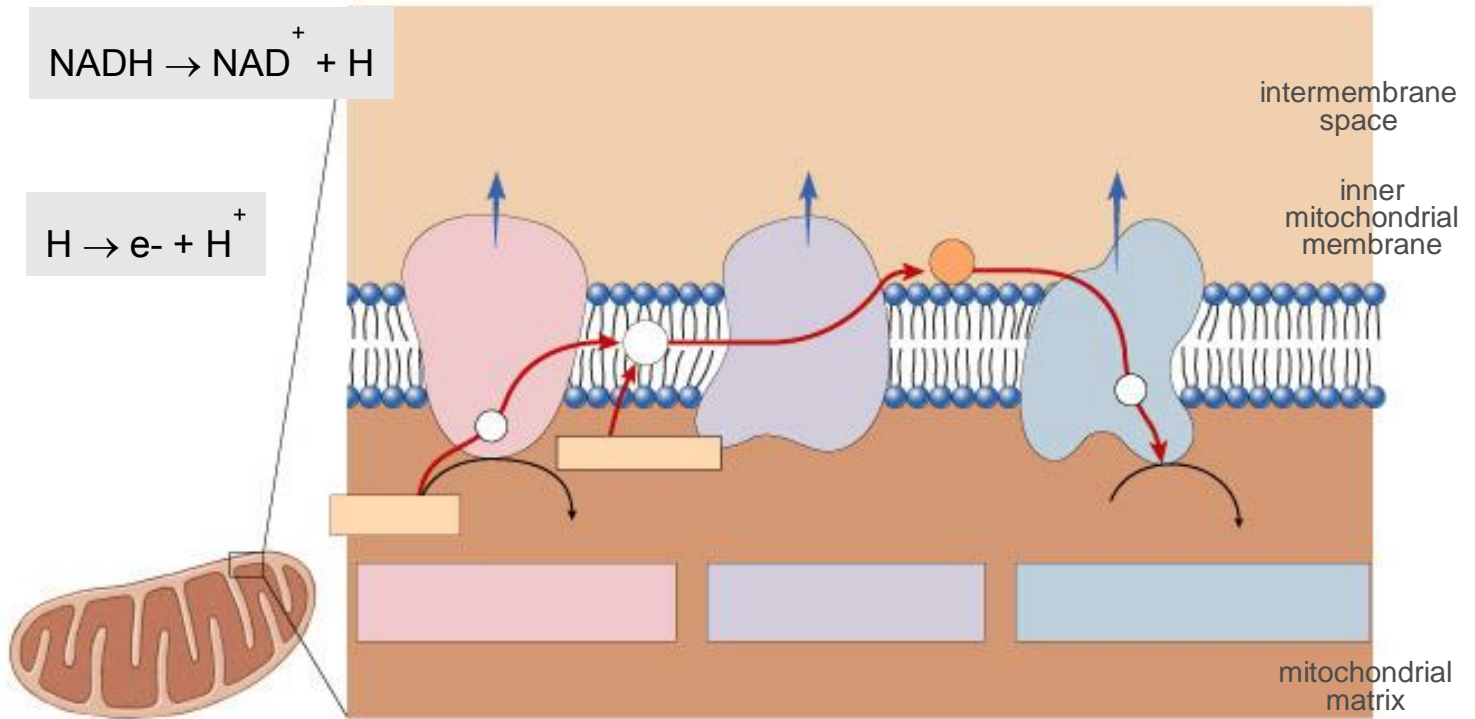
inner membrane

cristae

intermembrane space



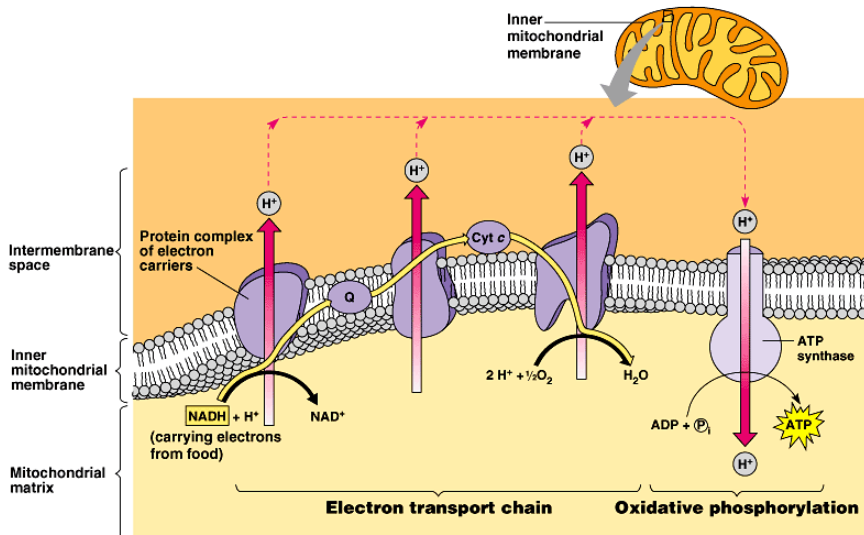
ELECTRON TRANSPORT CHAIN



Electron Carriers =

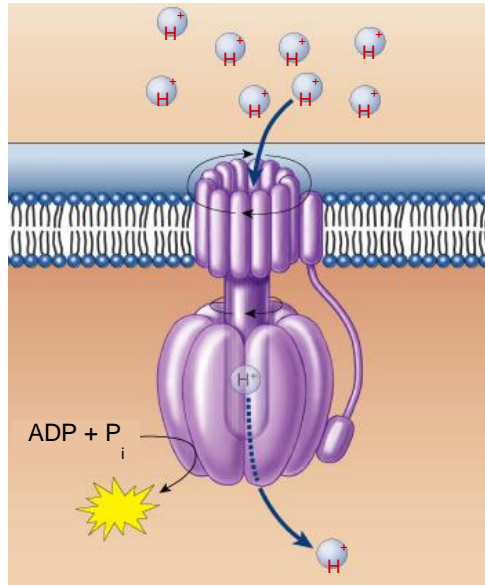
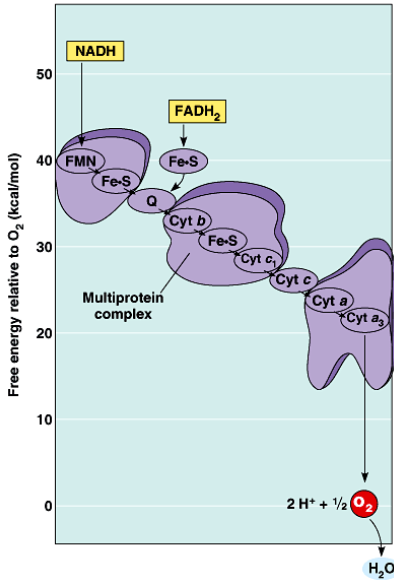
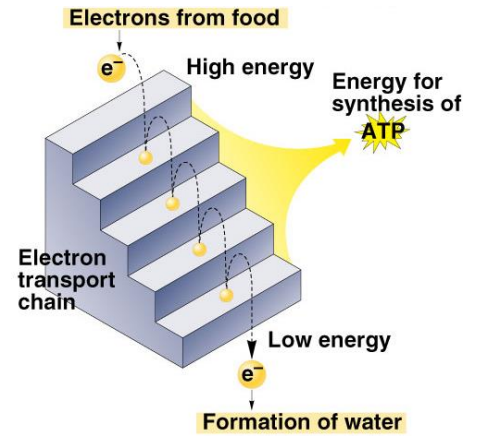
pass electrons & H^+ to ETC

- H cleaved off $NADH$ & $FADH_2$
- _____ stripped from H atoms \rightarrow _____
(_____)
- electrons passed from one electron carrier to next in mitochondrial membrane (ETC)
- flowing electrons = energy to do work
- transport proteins in membrane pump _____ (_____)
across inner membrane to _____



Electrons move in steps from carrier to carrier downhill to _____

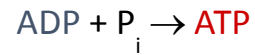
- each carrier _____
- controlled oxidation
- controlled transfer of energy



Set up a H⁺ gradient

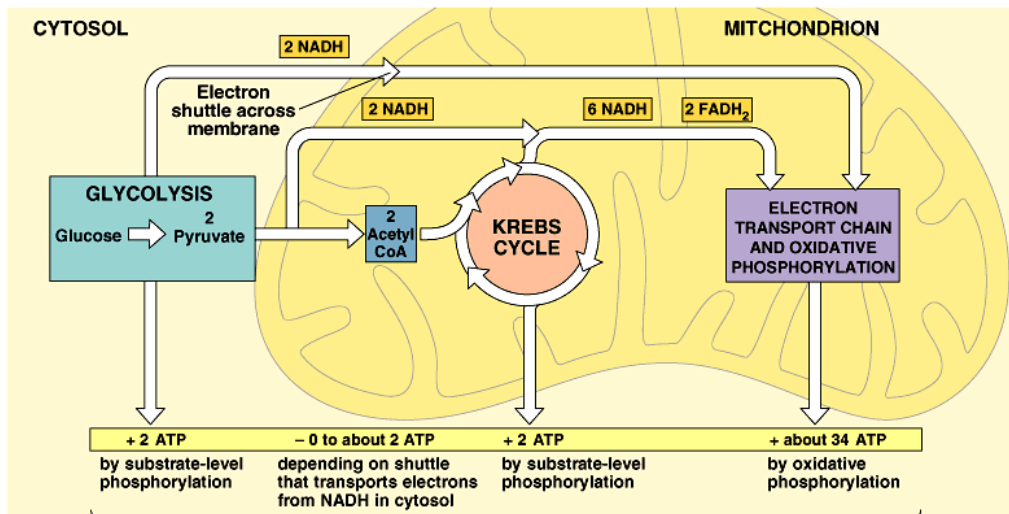
Allow the _____ to flow through ATP synthase

Synthesizes ATP



Chemiosmosis =

- build up of proton gradient just so H⁺ could flow through ATP synthase enzyme to build ATP





Where did the glucose come from?

Where did the O_2 come from?

Where did the CO_2 come from?

Where did the CO_2 go?

Where did the H_2O come from?

Where did the ATP come from?

What else is produced that is not listed in this equation?

Why do we breathe?