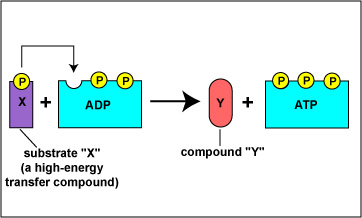
Name: \_\_\_\_\_\_\_\_\_\_\_

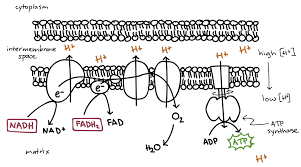
**Main Ideas Title: Oxidative Phosphorylation: ETC & Chemiosmosis** Period: \_\_\_ Seat:\_\_



Types of Substrate level phosphorylation- using an enzyme to

Phosphorylation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Oxidative phosphorylation-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to draw electrons down an electron transport chain \_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Which pathways of cellular respiration use substrate level

phosphorylation?

Anaerobic vs. Anaerobic respiration- generates ATP \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (very little ATP)

Aerobic Aerobic respiration- generates ATP only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Yields nearly 10 times more ATP

Anaerobic Aerobic

Oxygen?

Occurs in?

Amount of Energy made?

Products?

What happens to glucose?

Oxidative 2 parts to this:

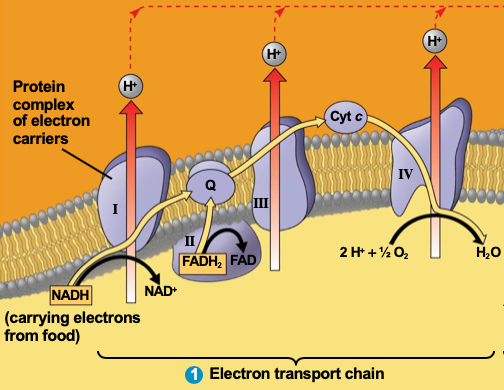
Phosphorylation 1)ETC: Series of redox reactions that use electron carrier proteins to slowly release the energy from NADH and FADH2… Moves H+ out of matrix to intermembrane space

2)Chemiosmosis: Process that uses the movement of H+ through ATP synthase to phosphorylate ADP🡪ATP

ETC \*Removes the electrons from NADH and FADH2 passes them \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

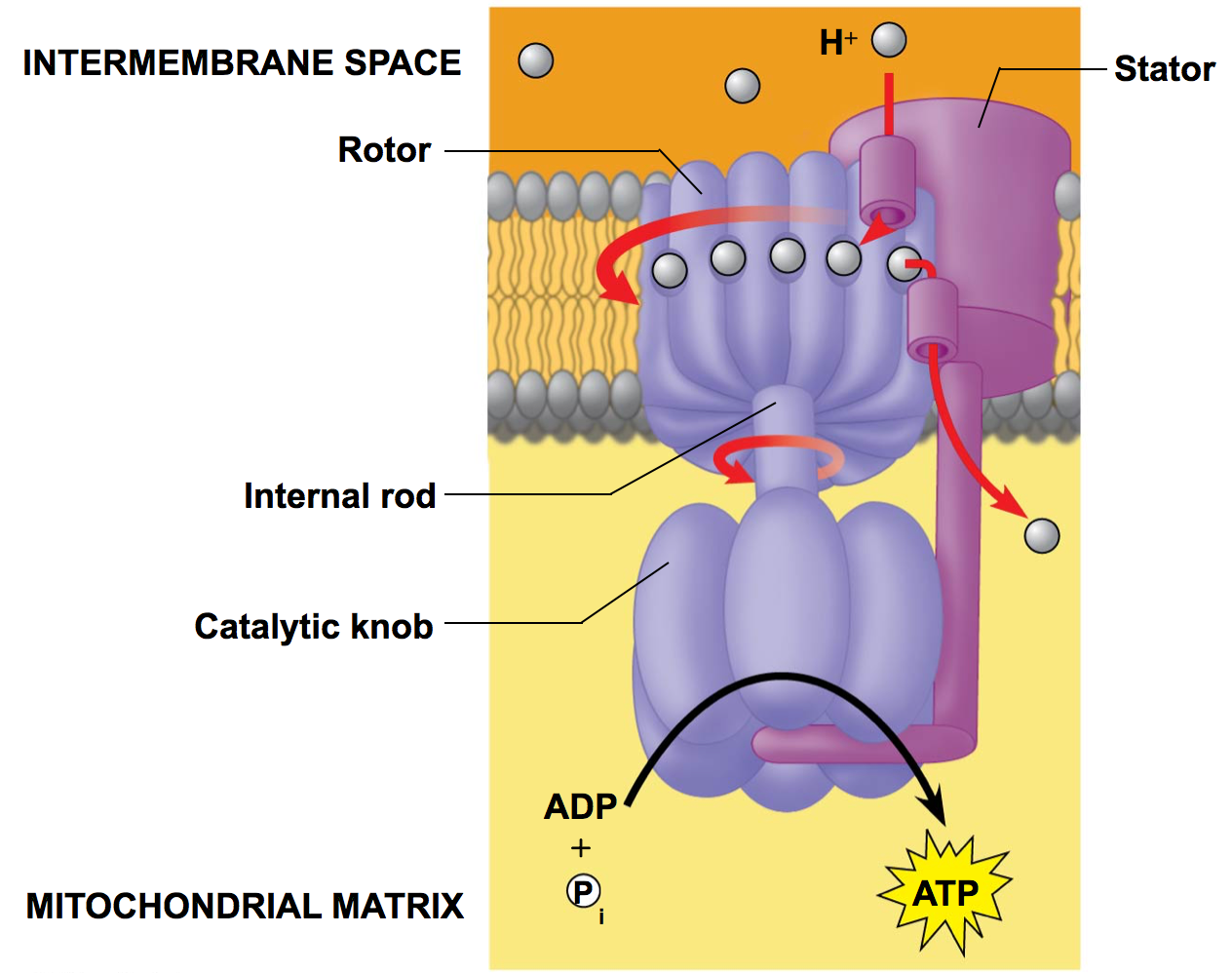
\*Creates an H+ gradient by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Chemiosmosis The H+ wants to move back into the mitochondrial matrix—\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Energy from movement is enough to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Carbohydrates (sugars) enter at…

Proteins (amino acids) enter at…

Lipids (glycerol) enter at…

Lipids (fatty acids) enter at…

Summary