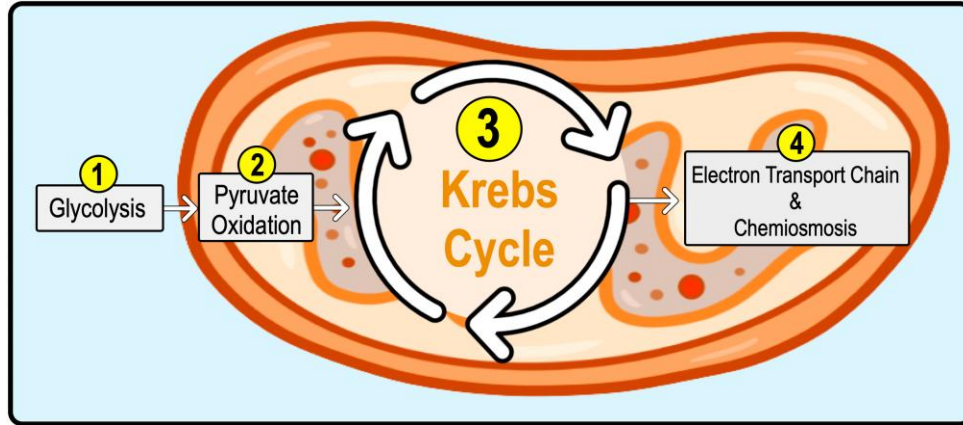


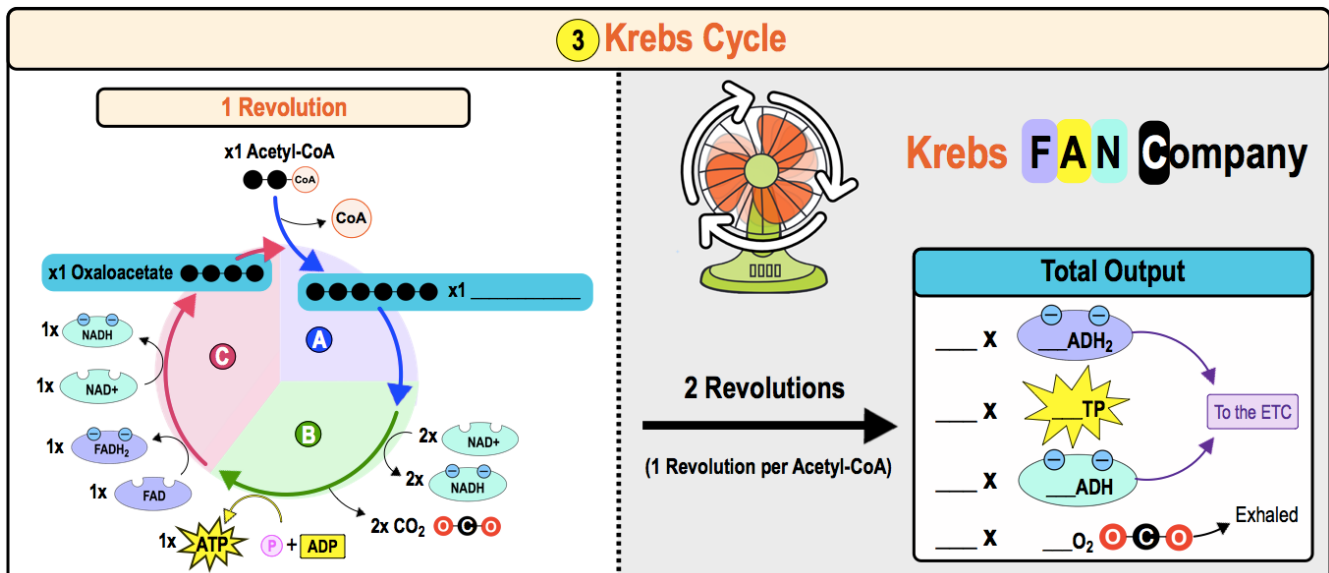
CONCEPT: KREBS CYCLE

- _____ Cycle: 3rd stage of aerobic cellular respiration; also known as the **Citric Acid Cycle** & the **TCA Cycle**.
 - Oxidizes acetyl-CoA *producing* energy in the form of ATP, NADH, & FADH₂.



Phases of The Krebs Cycle

- Krebs Cycle consists of a series of *multiple* reactions, which can be grouped into _____ phases:
 - A Acetyl-CoA Entry:** 2 *carbons* of Acetyl-CoA enter & react with *oxaloacetate*, producing _____.
 - NOTE: “CoA” does _____ enter the Krebs Cycle (just the _____ carbons enter).
 - B Citrate Oxidation:** Rearrangement & _____ of *citrate*.
 - Produces of 1 ATP & 2 NADH, & 2 CO₂ molecules.
 - C Oxaloacetate Regeneration:** _____ of *oxaloacetate* by *oxidation*.
 - Produces 1 NADH & 1 FADH₂ molecule.
- _____ rounds of the Krebs Cycle occur for every 1 glucose molecule (1 round of Krebs Cycle per acetyl-CoA).



CONCEPT: KREBS CYCLE

EXAMPLE: How many turns of the Krebs Cycle are needed to completely break down one molecule of glucose?

- a) 2. b) 3. c) 1. d) 4. e) 5.

PRACTICE: Which product of the Krebs cycle is also used as a reactant in the Krebs cycle?

- a) Citrate.
b) ATP.
c) Acetyl-CoA.
d) Oxaloacetate.

PRACTICE: Taking one molecule of glucose through glycolysis, pyruvate oxidation, and the Krebs cycle generates:

- a) 6 CO₂, 8 NADH, 2 FADH₂ and 4 ATP. c) 6 CO₂, 10 NADH, 2 FADH₂ and 4 ATP.
b) 6 CO₂, 8 NADH, 1 FADH₂ and 2 ATP. d) 6 CO₂, 10 NADH, 2 FADH₂ and 2 ATP.