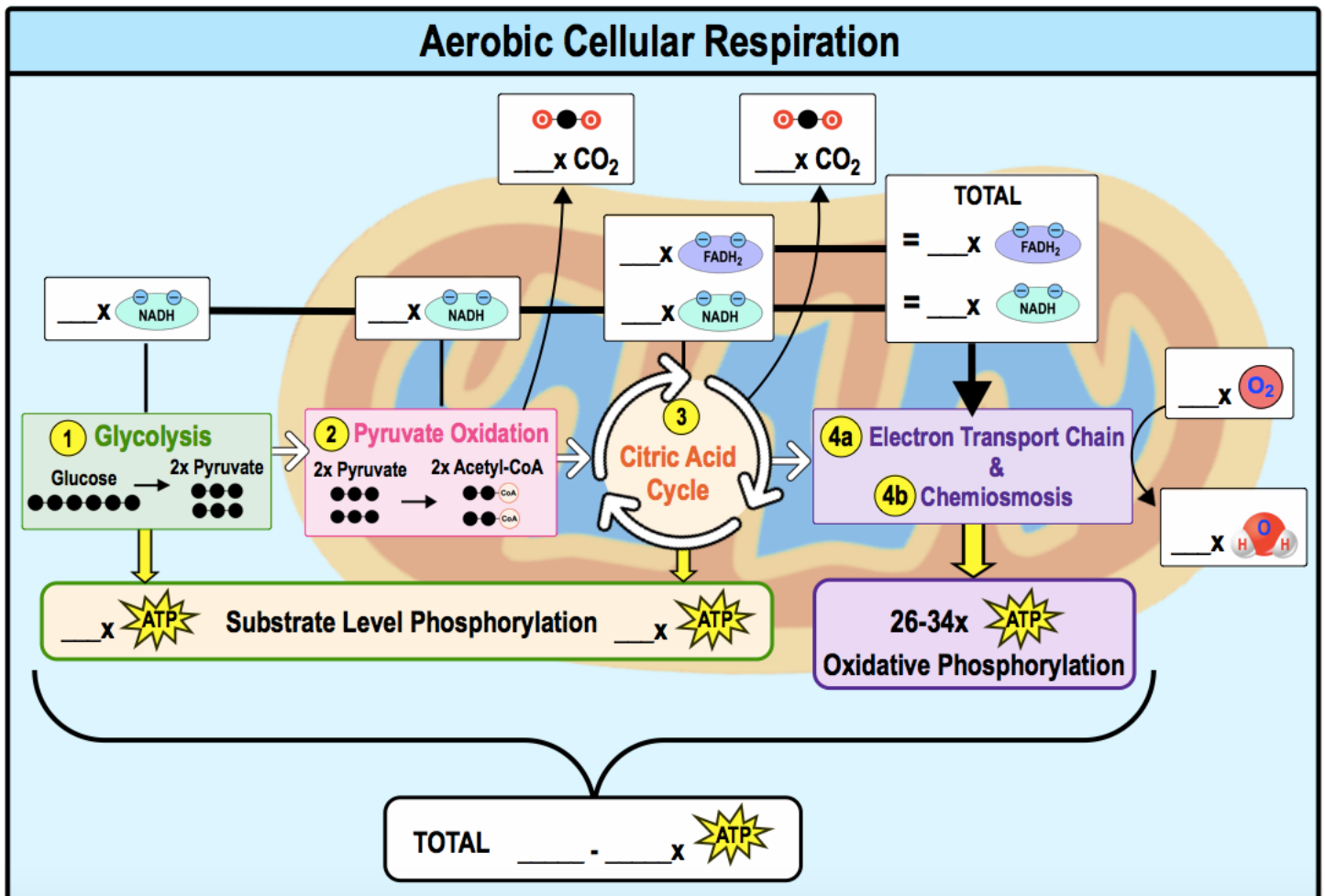


## CONCEPT: REVIEW OF AEROBIC CELLULAR RESPIRATION

● Recall: the \_\_\_\_\_ stages of **Aerobic Cellular Respiration**:



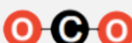



**PRACTICE:** Through the first three stages of cellular respiration only 4 ATP molecules have been produced from the initial glucose molecule. In which of the products of these stages is the potential energy to produce more ATP molecules stored?

- a) The 6 molecules of CO<sub>2</sub>.
- b) The H<sup>+</sup> ions produced.
- c) The 10 NADH and 2 FADH<sub>2</sub> molecules.
- d) The 4 molecules of ATP.

## CONCEPT: REVIEW OF AEROBIC CELLULAR RESPIRATION

### Total Products for Each Stage of Aerobic Cellular Respiration

● Fill in the table with the *total products* made from a *single glucose* molecule at each step of *aerobic cellular respiration*.

	① Glycolysis	② Pyruvate Oxidation	③ Krebs Cycle (Citric Acid)	④ Oxidative Phosphorylation	TOTALS
Start Molecule					
					
					
					
					
End Molecule					

**PRACTICE:** Water is one of the products of aerobic cellular respiration. What is the source of the oxygen atom utilized to create the water molecules?

- a) Carbon dioxide ( $\text{CO}_2$ ).
- b) Glucose ( $\text{C}_6\text{H}_{12}\text{O}_6$ ).
- c) Oxygen gas ( $\text{O}_2$ ).
- d) Pyruvate ( $\text{C}_3\text{H}_3\text{O}_3^-$ ).

**PRACTICE:** Approximately how many molecules of ATP are produced from the complete oxidation of one molecule of glucose ( $\text{C}_6\text{H}_{12}\text{O}_6$ ) through the process of aerobic cellular respiration?

- a) 4.
- b) 2.
- c) 26-34.
- d) 30-38.