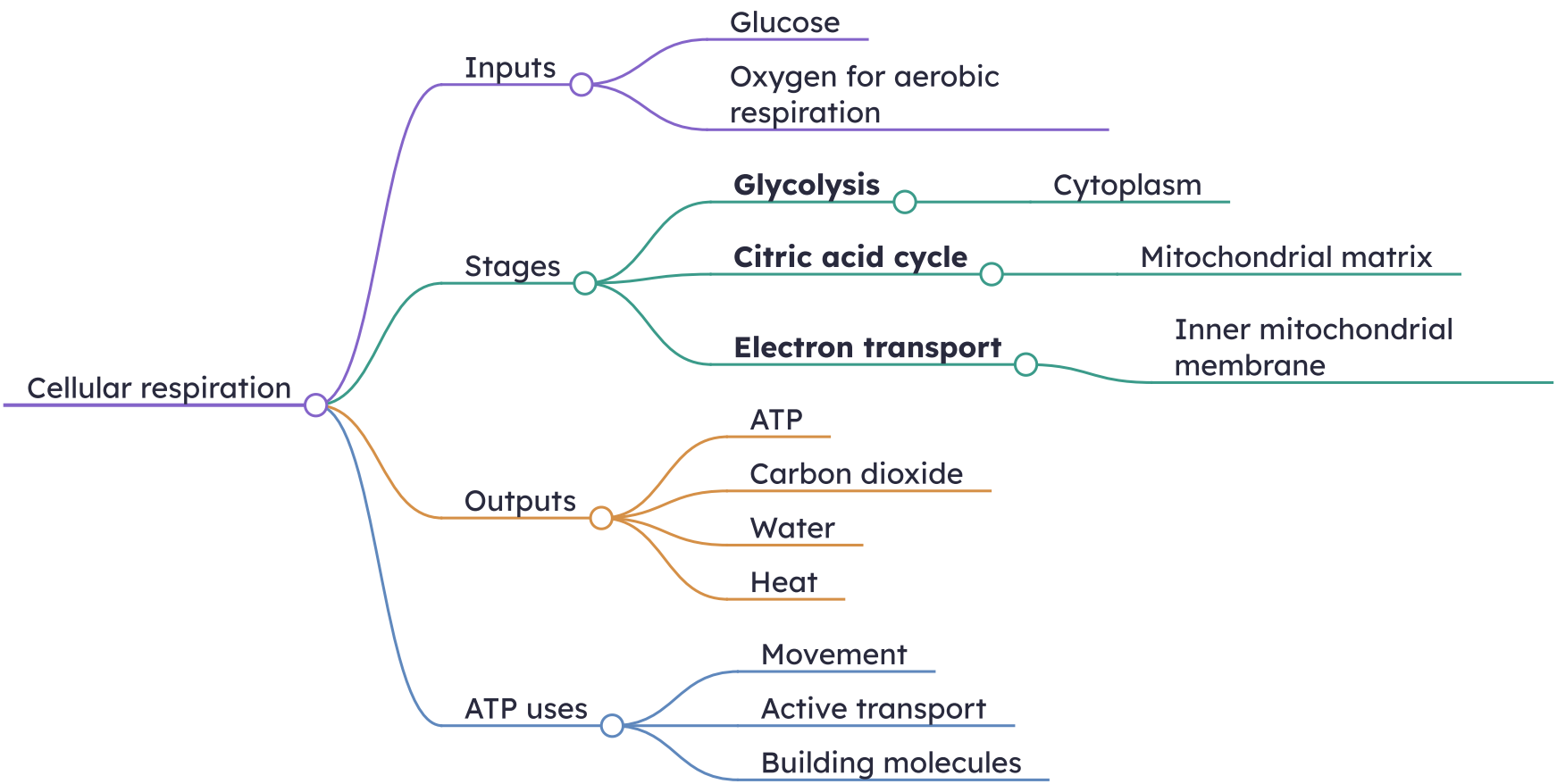
Cellular respiration

Connect fuel molecules, cellular locations, ATP, and the work cells perform.



Read one branch at a time. Then cover the details and explain them in your own words.

Understand the topic

Cellular respiration transfers some chemical energy from fuel molecules into ATP. Glycolysis occurs in the cytoplasm. In eukaryotic aerobic respiration, later stages involve mitochondria, and oxygen accepts electrons at the end of the electron transport chain. Carbon dioxide, water, and heat are among the overall outputs.

How the map is organized

Separate inputs, stages, outputs, and uses of ATP. Location labels help avoid treating every reaction as mitochondrial.

> **Watch out for this**
> Breathing moves air; cellular respiration is a set of chemical reactions. Plants carry it out too.

Try it yourself

Explain how energy from a meal can support muscle contraction. Distinguish digestion, transport, and cellular respiration.

Two questions to answer

Where does glycolysis occur?

Glycolysis occurs in the cytoplasm.

What does ATP help cells do?

ATP links energy-releasing reactions to processes that require energy.

Sources

openstax.org
https://openstax.org/books/biology-2e/pages/7-1-energy-in-living-systems

Original practice material compiled by Studera.ai. Explore at studera.ai/en/resources/mind-map-examples.