Did you know that the cells inside your body are like tiny power plants? They use a special process called cellular respiration to Electrons carried in NADH and FADH2 make energy. Glycolysis Electron Krebs Cycle Transport Imagine a cell as a tiny factory. The factory cose, 'Preview he to Cellu Become a member to unlock in unrestricted access to both printable the r g and online worksheets. role Glyc is, www.tutoringhour.com

glucose is proken down into smaller molecules called pyruvate. A bit of energy and other molecules are produced too.

## The Krebs Cycle:

Next, pyruvate moves into the mitochondria, and the Krebs cycle takes place. It breaks down pyruvate further, releasing carbon dioxide and more energy. Special molecules called NADH (nicotinamide adenine dinucleotide) and FADH2 (flavin adenine dinucleotide) are created to carry energy.

## The Electron Transport Chain:

The last step is the electron transport chain. High-energy electrons from NADH and FADH2 move through a series of "stations" inside the mitochondria. As they do, they release energy and create a small electrical charge. This charge helps make more energy in the form of ATP (adenosine triphosphate).



## **How Cells Make Energy**

- 1) Where does aerobic respiration take place in the cell?
  - a) in the cytoplasm
  - b) in the cell membrane
  - c) in the mitochondria



- 3) What is ATP in cellular respiration?
  - a) a type of gas
  - b) a waste product
  - c) a cell organelle
  - d) a special molecule that stores energy

## **How Cells Make Energy**

4) What is the main function of cellular respiration in the context of a cell's energy needs?



5)