

Cellular Respiration

Use the illustrations to help you fill in the blanks.

The bromthymol blue changed color due to the presence of _____ in your exhalations. Where did the carbon come from? It is a waste product from a process that releases energy from molecules. _____ is a series of chemical reactions that convert the energy in food molecules into a usable form of energy called _____. Cellular respiration occurs in two parts of a cell—_____ and the _____.

The first step of cellular respiration, called _____, occurs in the _____ of all cells. **Glycolysis** is a process by which _____ (a sugar), is broken down into smaller molecules. Glycolysis produces some _____, an energy storage molecule. This process also uses energy from other ATP molecules.

The second step of cellular respiration occurs in the _____ of eukaryotic cells. This step requires _____. The smaller molecules made from glucose during glycolysis are broken down. Large amounts of _____—usable energy—are produced. Cells use ATP to power all cellular processes. Two waste products _____ and _____ are given off during this step. The CO_2 released by cells as a waste product is used by plants and some unicellular organisms during photosynthesis.