**Metabolism Questions**

**Metabolism**

* Name the common metabolic pathways that transfer energy through living systems.

Photosynthesis and cellular respiration.

**Metabolic Reactions**

* Compare catabolic and anabolic reactions.

Catabolic reactions involve larger molecules being broken down into smaller molecules, whereas anabolic reactions involve several smaller molecules being built into larger molecules. Catabolic reactions break molecular bonds and, releasing energy (exergonic), and anabolic reactions form molecular bonds, taking in energy (endergonic). Cells use the energy released by catabolic reactions to fuel anabolic reactions.

**Metabolic Conditions**

* Explain why metabolism is dependent on homeostasis.

Organisms have a specific tolerance range in which metabolism can take place and homeostasis is responsible for maintaining these conditions. Most metabolic reactions require help from enzymes. Conditions outside of the tolerance range for the organism drastically affect the function of an enzyme, reducing the efficiency of life-sustaining reactions.