

Name \_\_\_\_\_

## Energizing Our Bodies: How Food Becomes Energy

### Open-Ended Response Answer Key

1. Digestion is the process of breaking down food into smaller molecules that can be absorbed by the body. It starts in the mouth, where enzymes in saliva begin breaking down carbohydrates. In the stomach, gastric juices continue digestion, and in the small intestine, nutrients are absorbed into the bloodstream for energy production.
2. Glucose is a primary and immediate source of energy for cells, while fats are used as a backup energy source. Glucose is rapidly converted into ATP, while fats require a more complex process to release energy.
3. ATP is considered the "energy currency" of our cells because it stores and transfers energy for various cellular activities. It is replenished through the breakdown of glucose, fats, and occasionally proteins through cellular respiration.
4. Balanced nutrition ensures that our body receives an adequate supply of carbohydrates, fats, and proteins, which are essential for energy production and overall health. A balanced diet provides the necessary nutrients for efficient energy conversion and cellular function.

