

Name

2.18 Glucose and ATP

1. The fact that all organisms use similar energy-carrying molecules shows one aspect of the grand "Unity of Life." Name two universal energy-carrying molecules, and explain why most organisms need both carriers rather than just one.

2. A single cell uses about 10 million ATP molecules per second. Explain how cells use the energy and recycle the materials in ATP.

3. ATP and glucose are both molecules that organisms use for energy. They are like the tank of a tanker truck that delivers **gas** to a gas station and the gas tank that holds the fuel for a car. Which molecule is like the tank of the delivery truck, and which is like the gas tank of the car? Explain your answer.