

Name \_\_\_\_\_

## The First Law of Thermodynamics: Energy Conservation Explained

### Short Answer Key

1. Answers may vary but could include turning on a light bulb, charging a phone, or cooking food.
2. The first law of thermodynamics states that energy cannot be created or destroyed; it can only change forms, emphasizing the conservation of energy.
3. Different forms of energy include mechanical, thermal, and chemical energy. The first law relates to their transformations by ensuring that the total energy remains constant.
4. Answers may vary, but without the first law of thermodynamics, energy would seem unpredictable and could not be harnessed or controlled for practical use.
5. Answers may vary but could include a car engine, a wind turbine, or a solar panel. Describe how these technologies convert energy from one form to another while conserving it.

