



Oxford City Schools

# Proficiency Scale

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**GRADE LEVEL: 11      COURSE NAME: Physics**  
**MEASUREMENT TOPIC: Verify Energy Conservation**

**4**

In addition to Score 3, the student makes in-depth inferences and applications.

**3**

The student can:

- **Create mathematical and graphical representations to depict the transformation of energy from one form to another, including:**
  - kinetic energy
  - gravitational potential energy
  - elastic potential energy
  - work due to friction
- **Use models to illustrate the relationship between the work performed on an object and the object's total mechanical energy in both open and closed systems.**

**2**

The student can:

- **Quantitatively and Qualitatively describe the variables of:**
  - kinetic energy
  - gravitational potential energy
  - elastic potential energy
- **Use mathematical and computational thinking to explain the relationships among work, power, and time.**

**1**

With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.

**Key Vocabulary:** kinetic energy, gravitational potential energy, elastic potential energy, Work, power, time