The Pendulum Demonstration

Name_____
Date _____ Period ___ Score___ / 4

LT: I can identify/describe kinetic and potential energy and the transformation between the two and that energy is conserved in the transformation.

CATEGORY	1	2	3	4
Drawings/Diagrams **Details / Captions** **_____/4**			Clear, accurate, detailed diagrams are included and make the event easier to understand. Diagrams are **labeled** neatly and accurately. Color is used to clarify the event. For example: Potential energy is identified with red arrows. Kinetic energy is identified with blue arrows. A key is used to identify role of colors Captions accurately replicate the event in detail. Steps are outlined sequentially and are adequately detailed. Potential energy is CLEARLY identified/described/defined and several positions of the pendulum are explored. • Potential energy is the sored energy an object has due to its position or energy which is stored in chemical bonds • The energy stored in a match is Chemical Potential Energy (CPE) • The energy stored in a stretched rubber band or compressed gas is Elastic Potential Energy (EPE) • The energy stored in the pendulum is Gravitational Potential Energy (GPE) • The amount of GPE the pendulum has depends on the height of the ball • GPE is *transformed* into Kinetic Energy (KE) Kinetic energy is CLEARLY identified/described/defined and examples are given/explained. • Kinetic energy (KE) is the energy a moving object has *because* of it motion. • The pendulum has KE while it is moving • The amount of KE the pendulum has depends on the amount of GPE exists in the system • GPE is transformed into KE Energy is conserved within the system • Mechanical energy = potential energy + kinetic energy • Friction and air residence cause some of the mechanical energy to change (transform) into thermal energy (which is also kinetic)	Exceptional detail:

Total _____