

Lesson 5: Lesson Question: How are mass and speed related to kinetic energy?

A. What activity did we do?	pendulum lab #2 - we kept the height the same but changed the mass that was on the pendulum.
B. What evidence did we gather?	<ul style="list-style-type: none"><li>• the more mass we added, the further the box moved.</li><li>• the more mass we added, the more kinetic energy there was.</li></ul>
C. My answer to the lesson question:	<ul style="list-style-type: none"><li>• mass &amp; kinetic energy have a linear relationship. As mass increases, so does kinetic energy. For example: if you double mass, kinetic energy also doubles.</li><li>• speed &amp; kinetic energy have a non-linear relationship. If you increase speed, kinetic energy increases. However, if you double speed, kinetic energy increases by much more than double.</li></ul>
D. Connecting my ideas to the Unit Challenge:	<ul style="list-style-type: none"><li>• Kinetic energy is "motion energy." It is needed to move the magnets within the coils of wire of an electric generator.</li><li>• water generators need <u>a lot</u> of water running through the turbine from a high drop in height &amp; elevation.</li><li>• wind generators need <u>a lot</u> of wind at a high speed to power the blades.</li></ul>