# Conservation of Energy Visuals Information

**Slide 2:**
Kinetic Energy example: A puck speeding away from a hockey stick, although having a small mass, can have a large amount of kinetic energy due to its fast velocity (i.e. it can hurt anyone it hits).

Potential Energy example: example: A giant slingshot has elastic potential energy. When the elastic is released, the potential energy will be converted to kinetic energy.

**Slide 5:**
"Émilie du Châtelet (1706 – 1749) proposed and tested the hypothesis of the conservation of total energy, as distinct from momentum. Inspired by the theories of Gottfried Leibniz, she repeated and publicized an experiment originally devised by Willem Gravesande in which balls were dropped from different heights into a sheet of soft clay. Each ball's kinetic energy - as indicated by the quantity of material displaced - was shown to be proportional to the square of the velocity. The deformation of the clay was found to be directly proportional to the height the balls were dropped from, equal to the initial potential energy."
https://en.wikipedia.org/wiki/%C3%89milie_du_Ch%C3%A2telet

**Slide 6:**
a) Chemical potential energy → electrical energy → light energy
b) Chemical potential energy → mechanical energy → kinetic energy + heat + sound

**Slide 7:**
A roller coaster gives a good example of how potential energy due to the gravitational force at the top of a hill is transferred to kinetic energy as the train picks up speed going downhill.