**Directions for the front page:**

Students should view this Brain Pop and then add a more descriptive explanation of what potential energy is and two ways it is gained to the notes page. [Potential Energy from Brain Pop](http://glencoe.mcgraw-hill.com/sites/dl/free/0078768349/161383/00035807.html)

Students should then view this Brain Pop video and summarize what kinetic energy is and what influences how great (big) it can be. [Kinetic Energy from Brain Pop](http://glencoe.mcgraw-hill.com/sites/dl/free/0078768349/161752/00035806.html)

**Directions for the inside pages:**

On each picture, students should label the location that shows:

 The greatest potential energy

 The greatest kinetic energy

 The least potential energy

 The least kinetic energy

 Equal amounts of potential and kinetic energy

Use the following animations to check your work.

[**Energy Transformation for Downhill Skiing**](http://www.physicsclassroom.com/mmedia/energy/se.cfm) **Link**

[**Energy Transformation for a Roller Coaster**](http://www.physicsclassroom.com/mmedia/energy/ce.cfm) **Link**

[**Energy Transformation for a Pendulum**](http://www.physicsclassroom.com/mmedia/energy/pe.cfm) **Link**

[**Energy Transformation for a Projectile (dart)**](http://www.physicsclassroom.com/mmedia/energy/dg.cfm) **link**

[**Multiple PE/KE animations including energy in a spring**](http://www.science-animations.com/support-files/energy.swf) **link**

**In your journal on page\_\_\_\_\_\_ draw a picture of Niagara Falls ( a water fall) with labels that show the energy changes as water flows.** [**http://ga.water.usgs.gov/edu/hyhowworks.html**](http://ga.water.usgs.gov/edu/hyhowworks.html)

**Students may practice identifying where potential and kinetic energy are the greatest and smallest with following link:** [**Assessment-Kinetic Vs. Potential**](http://www.cstephenmurray.com/onlinequizes/physics/workandenergy/kineticvspotentialenergy.htm) **Energy**

Potential Energy = the energy an object has because of its gravitational position or ability.

**2 ways to change the amount of potential energy in an object:**

Examples – *position*: related to height

* Roller coaster at the top of a hill.
* Swing at its highest point
* Rock at the top of a hill

Examples – *ability*: related to mass

* Food
* Match
* Fireworks
* Gasoline

Kinetic Energy = energy in motion.

**2 ways to change the amount of kinetic energy in an object:**

Examples: related to mass

* Sound
* Lightning

Examples: related to amount of speed

* Moving car
* Roller coaster going down a hill













