

# Energy

## Overview Sheet

### Essential Question

How does energy go through changes?

### Vocabulary

energy	potential energy	kinetic energy	chemical energy
mechanical energy	thermal energy	electromagnetic energy	nuclear energy
sound energy	energy efficiency	friction	law of conservation of energy

### Learning Targets

(Objectives)

1. Describe energy
2. Compare and contrast kinetic and potential energy
3. Compare and contrast the different forms of energy (chemical, mechanical, nuclear, thermal, electromagnetic, sound)
4. Explain the law of conservation of energy
5. Explain the relationship between energy conversions and efficiency

### Helpful Websites

- <http://www.eia.gov/kids/energy.cfm?page=1> (energy overview)
- [http://www.bbc.co.uk/schools/ks3bitesize/science/energy\\_electricity\\_forces/energy\\_transfer\\_storage/revise1.shtml](http://www.bbc.co.uk/schools/ks3bitesize/science/energy_electricity_forces/energy_transfer_storage/revise1.shtml) (energy overview)
- [http://www.energyeducation.tx.gov/energy/section\\_1/topics/index.html](http://www.energyeducation.tx.gov/energy/section_1/topics/index.html) (energy overview)
- <http://www.fplsafetyworld.com/?ver=kkblue&utilid=fplforkids&id=16157> (energy overview)
- <http://www.physicsclassroom.com/class/energy/u5l1b.cfm> (gravitational and elastic potential energy)
- <http://glencoe.mcgraw-hill.com/sites/dl/free/0078600472/160350/00035807.html> (potential energy + video)
- <http://glencoe.mcgraw-hill.com/sites/dl/free/0078600472/161752/00035806.html> (kinetic energy + video)
- <http://pbskids.org/fetch/games/coaster/game.html> (potential and kinetic energy + interactive)
- [http://www.classzone.com/books/ml\\_science\\_share/vis\\_sim/mem05\\_pg69\\_potential/mem05\\_pg69\\_potential.html](http://www.classzone.com/books/ml_science_share/vis_sim/mem05_pg69_potential/mem05_pg69_potential.html) (potential and kinetic energy + interactive)
- <http://glencoe.mcgraw-hill.com/sites/dl/free/0078600472/160350/00076705.html> (forms of energy + video)
- <http://www.brainpop.com/games/coastercreator/> (conservation of energy + interactive)

More on back



- <http://phet.colorado.edu/en/simulation/energy-skate-park> (conservation of energy + interactive)
- [http://highered.mcgraw-hill.com/sites/0078600499/student\\_view0/unit2/chapter6/section\\_1\\_self-check\\_quiz-eng\\_.html](http://highered.mcgraw-hill.com/sites/0078600499/student_view0/unit2/chapter6/section_1_self-check_quiz-eng_.html) (energy + quiz + interactive)
- <http://energyquest.ca.gov/index.html> (fun energy website)
- [http://content3.jason.org/resource\\_content/content/digitallab/8250/misc\\_content/public/popup.html](http://content3.jason.org/resource_content/content/digitallab/8250/misc_content/public/popup.html) (sustainable energy + interactive)
- <http://www.energyville.com/energyville/> (sustainable energy + interactive)