

**Part A: Types of Energy**

<b>Definition</b>	<b>Examples</b>
<i>Mechanical Kinetic</i>  Energy of something moving. (something large enough to touch)	
<i>Gravitational Potential</i>  Energy contained in height.	
<i>Elastic Potential</i>  Energy contained in something stretched or compressed.	
<i>Thermal</i>  Energy of moving molecules	
<i>Chemical Potential</i>  Energy contained in chemical bonds within molecules.	

(1 – 8) Which type of energy does each of these things have?

**A.1.** A very fast moving car:

**A.2.** A bookshelf on a roof:

**A.3.** Your lunch:

**A.4.** Anything with moving molecules:

**A.5.** A matchbox car that is wound up (matchbox cars have SPRINGS inside them):

**A.6.** A gallon of gasoline:

**A.7.** Mr. Kuncik running through the hallways:

**A.8.** A book that is sitting on the edge of a desk:

(A.9 – A.13) Draw a picture of each type of energy

A.9. Kinetic:

A.10. Gravitational Potential:

A.11. Elastic Potential:

12. Thermal:

13. Chemical Potential:

Definition	Examples
<i>Electrical</i> Energy of moving electrons	
<i>Electrochemical Potential energy</i> Chemical potential energy that can be converted into electrical energy easily; battery	
<i>Mechanical Waves</i> Waves of energy moving through matter, includes <i>sound</i> .	
<i>Electromagnetic Waves</i> Oscillating electric and magnetic energy. Includes <i>light</i> .	
<i>Nuclear</i> Energy contained in the nucleus of an atom.	

(A.14 – A.22) Which type of energy is each of these?

A.14. An electrical transmission wire:

A.15. The smallest part of an atom, when it is moving:

A.16. The center of an atom:

A.17. Light:

A.18. AAA battery:

A.19. Somebody banging on the door (energy of the *bang*):

A.20. Waves crashing on the beach:

A.21. All matter has this type of energy, because all matter has mass:

A.22. X-Ray Machine:

A.23. Type of energy used by a cell phone to communicate:

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(A.24 – A.28) Draw a picture of each type of energy:

A.24. Electrical Energy

A.25. Mechanical Wave Energy

A.26. Electromagnetic Wave Energy

A.27. Nuclear Energy

A.28. Draw Electrochemical Potential energy