

Energy Conversion Matrix									
FROM ↓ TO ⇒	Thermal	Mechanical	Acoustical	Chemical	Electrical & Magnetic	Electromagnetic Radiation	Nuclear	Elastic	Gravitational
Thermal	<ul style="list-style-type: none"> • Heat exchangers • Thermal conduction 	<ul style="list-style-type: none"> • Steam turbine • Heat engines • Wind • Radiometer 		<ul style="list-style-type: none"> • Endothermic reaction • "Cold packs" 	<ul style="list-style-type: none"> • Thermo-electric effect • Thermionic emission 	<ul style="list-style-type: none"> • Thermocouple • Incandescence 	<ul style="list-style-type: none"> • Thermionic emission 		<ul style="list-style-type: none"> • Convection • Hot air balloon • Popcorn
Mechanical	<ul style="list-style-type: none"> • Refrigerator • Heat pump • Brakes 		<ul style="list-style-type: none"> • Gear box 		<ul style="list-style-type: none"> • Wind turbine • Generator • Microphone 	<ul style="list-style-type: none"> • X-ray tube 		<ul style="list-style-type: none"> • Wishbone • Inflating a balloon 	<ul style="list-style-type: none"> • Pendelum • B-ball pop fly
Chemical	<ul style="list-style-type: none"> • Furnace • Combustion • Exothermic reaction • "Hot packs" 	<ul style="list-style-type: none"> • Combustion engines • Muscle action • Dynamite 	<ul style="list-style-type: none"> • Chemical explosion 	<ul style="list-style-type: none"> • Glycolysis • ADP to ATP • AMP to ADP 	<ul style="list-style-type: none"> • Fuel cell • Chemical battery 	<ul style="list-style-type: none"> • Bio-luminescence • Chemical lasers • Fireflies • Glowsticks 		<ul style="list-style-type: none"> • Combustion expanding gas 	<ul style="list-style-type: none"> • Rocket
Electrical & Magnetic	<ul style="list-style-type: none"> • Electric heater • Toaster 	<ul style="list-style-type: none"> • Motor • Thunder 		<ul style="list-style-type: none"> • Electrolysis • Electro-plating • Rechargeable batteries 	<ul style="list-style-type: none"> • Transformer 	<ul style="list-style-type: none"> • Lamp • LED • Radio broadcast 		<ul style="list-style-type: none"> • Electrostriction • Magneto-striction 	<ul style="list-style-type: none"> • Elevator
Electromagnetic Radiation	<ul style="list-style-type: none"> • Solar collector • Microwave oven 	<ul style="list-style-type: none"> • Photoelectric effect 		<ul style="list-style-type: none"> • Plants • Photography • Sunburn 	<ul style="list-style-type: none"> • Solar cell 	<ul style="list-style-type: none"> • Photo-luminescence 			<ul style="list-style-type: none"> • Microwave popcorn
Nuclear	<ul style="list-style-type: none"> • Nuclear bomb • Fission reactor 	<ul style="list-style-type: none"> • Nuclear bomb 	<ul style="list-style-type: none"> • Nuclear bomb 	<ul style="list-style-type: none"> • Nuclear bomb 	<ul style="list-style-type: none"> • Nuclear bomb • Nuclear generator 	<ul style="list-style-type: none"> • Nuclear bomb • Stars 	<ul style="list-style-type: none"> • Nuclear bomb • Breeder reactor 		<ul style="list-style-type: none"> • Nuclear propulsion
Elastic	<ul style="list-style-type: none"> • Compression of gas refrigerator 	<ul style="list-style-type: none"> • Spring driven wristwatch • Bow & arrow 			<ul style="list-style-type: none"> • Piezo-electric effect 	<ul style="list-style-type: none"> • Piezo-luminescence 		<ul style="list-style-type: none"> • Newton's cradle 	<ul style="list-style-type: none"> • Trampoline • Toaster
Gravitational	<ul style="list-style-type: none"> • Contraction of a protostar 	<ul style="list-style-type: none"> • Flowing water • Pendelum 			<ul style="list-style-type: none"> • Hydropower 		<ul style="list-style-type: none"> • Formation of a neutron star 	<ul style="list-style-type: none"> • diving board 	<ul style="list-style-type: none"> • One period of satellite orbit