













Photo	Tool Name	Brief Description	Source
1 Natural Resources for Energy			
	Coal sample	Sample of coal as an energy resource.	Dodds Coal Mine
	Oil sands sample	Sample of oil sands as an energy resource.	CAPP
	Natural gas pipe	Model of a natural gas pipe demonstrating natural gas as an energy resource.	Lowe's and Brady Canada
	Nuclear sample (plastic replica)	Sample of uranium (<i>nuclear energy</i>) as an energy resource.	Canadian Nuclear Society
	Solar sample	Example of a solar panel demonstrating the sun as an energy resource.	Amazon
	Wind sample	Photo of a wind turbine demonstrating wind as an energy resource.	Photo
	Geothermal sample	Model of the earth demonstrating geothermal as an energy resource.	Photo
	Hydro sample	Photo of a hydroelectric dam demonstrating water as an energy resource.	Photo
	Biomass sample	Sample of biomass (<i>wood pellets</i>) as an energy resource.	Canadian Tire
	Alberta Natural Resources Map	Map of Alberta's natural regions and the natural resources found within each.	Inside Ed website
	Natural Resource Riddles (cards)	A series of 9 clues that correspond to each of the natural resource samples.	Inside Ed website

2 | Canada's Energy Landscape

	Energy Moves Board Game & Cards	Board game with 6 sets of cards - consultation, environmental assessment, resource extraction, transportation, reclamation & monitoring, and processing.	Inside Ed website
--	--	--	-----------------------------------

3 | Electricity Generation













	Hand Generator	Converts mechanical energy to electrical energy to light a light bulb. Leads can also be attached to a multimeter, LED bulb, etc.	Kidder
	Multimeter	An instrument that measures electric current, voltage and resistance.	Ajax Scientific
	D-Cell battery	A large battery used in the electromagnet building experiment.	Amazon
	Bolt (zinc, 3in)	A zinc bolt used in the electromagnet building experiment.	Amazon

Photo	Tool Name	Brief Description	Source
	Paperclips	Small and large paper clips used to test the strength of an electromagnet.	N/A
	Electrical tape	Electrical tape used to connect copper wire to the battery in the electromagnet building experiment.	Canadian Tire
	Insulated copper wire (20AWG)	Insulated copper wire used in the electromagnet building experiment.	Home Depot
	Electricity poster	The Electricity poster includes a number of activities on topics including electricity safety, natural resources for electricity, and generating electricity across Canada.	Inside Ed website





4 | Renewable & Alternative Energy

	Wind turbine models (5)	These DIY wind turbine models demonstrate how wind energy is captured and generated. Complete as a design challenge between groups and measure output using the light indicator and multimeter.	Kidder
	Electrolysis Experiment	To use Hydrogen as an energy source, the Hydrogen needs to be extracted somehow. One way is through electrolysis - i.e. splitting water into Hydrogen and Oxygen. This simple experiment shows how the process of electrolysis works to produce Hydrogen.	N/A
	Solar panel	This 12V solar panel contains photovoltaic cells that capture solar energy and convert it to electrical energy.	Canadian Tire



5 | Experience Fossil Fuels

	Issues & Innovations Cards	Match the issue to the innovation to learn more about what's being done to lessen the impact of the fossil fuels industries on water, wildlife and air.	Inside Ed website
---	---------------------------------------	---	-----------------------------------


6 | Energy Efficiency & Conservation

	Energy Meter	Measures the amount of electrical energy consumed by an electrical device.	Walmart
	LED light bulb	A source of electrical light that uses one or more Light Emitting Diodes (<i>LEDs</i>) to produce light.	Canadian Tire
	Incandescent light bulb	A source of electric light that works by incandescence, which is the emission of light caused by heating a filament.	Canadian Tire
	Lux Meter	A device that measures the brightness of illumination (<i>light</i>) of a surface.	Walmart

7 | Energy Storage

	Zecar	This model car uses the stored kinetic energy of its flywheel to scoot across the floor.	Arbor Scientific
	Electric car model	This model car uses the stored energy of its battery to scoot across the floor.	Kidder

8 | Stewardship

	Infrared thermometer	An instrument that detects the infrared radiation emitted by an object to determine its temperature.	Walmart
---	-----------------------------	--	-------------------------

All of the items on this list are available for purchase from various vendors. If you need a hand sourcing tools for your classroom, do not hesitate to reach out — we are happy to help! info@insideeducation.ca