



Activity: Hand Crank Generator





Grade Level(s)	Timeframe
6-8	90 - 120 min

ABSTRACT

Hands-on activity building a structure to turn kinetic energy into electric energy. Students work in groups to build a tower with a hand-crank connected to an electric motor. The motor can be connected to LEDs which will light up when the students turn the hand-crank.

EXTRA FILES

 013_2.docx

 013_3.xlsx

SUPPLIES AND EQUIPMENT

See uploaded file for details, including sizes, example retailers, approximate cost, and quantities.

Consumables:

- Thick Bristol Board
- Dowels or rulers, if needed, to support the Bristol Board.
- Blank CDs (to glue together)
- Bead
- Pipe Cleaner

Reusables:

- Electric Motor
- Bread Board (for connecting wires)
- Wires
- Assorted LEDs
- Elastic
- Eye Bolt

Tools

- Glue Gun
- Scissors
- Ruler
- Stapler
- Wire Stripper, Wire Cutters (in case replacement wires needed)