

## DARENT UNIVERSITY Unlimited Hands-On Science NOVEMBER 2016

**STANDARD 3.P.3**: The student will demonstrate an understanding of how electricity transfers energy and how magnetism can result from electricity

## **\*ENERGY** Kinetic vs. Potential

- 1. Intro (Rules)
- II. What is Energy? (Discussion)
  - A. The ability to do work.
  - B. Types of Energy i.e. potential, kinetic
- III. Let's Demonstrate (Hands-Om)
  - A. Potential Energy
    - 1. Stored Energy
    - 2. Oil, Coal, Wood or Gas
  - B. Kinetic Energy (Hands-On)
    - 1. Energy in Motion
    - 2. Mechanical, Electrical, Gravitational
- IV. Review (Terminology)
  - A. Grades K-3: energy, kinetic, potential, work, gravity, electricity, chemical, stored, motion
  - B. Grades 4-6: energy, kinetic, potential, work, gravity, electricity, chemical, stored, motion, thermal, reaction, force
- V. Engaging Experiments for home.
  - A. (K-3) Energy for Life (pink sheet)
  - B. (4-6) Energy from Garbage (yellow sheet)

## AWESOME REFERENCES

- 1. <u>http://www.lovemyscience.com/cat\_pressure.html</u>
- 2. http://www.sciencekids.co.nz/experiments.html
- 3. <u>http://kids.usa.gov/</u>

## JUST A FEW BOOKS

- 1. *Experiments with Air: Safe and Easy-To-Do Experiments* Sterling Publishers Pvt.Ltd (January 1, 2011)
- 2. Hot Air (Caldecott Honor Book) by Marjorie Priceman (Jul 1, 2005)