

MATERIAL LIST

THE ENGINEERING DESIGN PROCESS

Activity 1

- Chart paper to create anchor chart of Engineering Design Process
- Activity 1 Worksheet
- Activity 2 Worksheet

THE POWER GENERATOR

Part 1: What Do You See?

- High-resolution photos of a generator
- Small post-its (in two colours)

Part 2: Design and Build a Power Generator

- Old CDs or DVDs
- Pipe cleaners
- Nuts and bolts
- Beads
- Card board
- Cups
- Glue stick
- Glue gun & glue
- Tape
- Scissors
- Motors – can be purchased at hobby stores for \$1 per motor
- 9V Batteries
- LEDs

RUBE GOLDBERG MACHINES

Part 1: What is that Machine?

- Rube Goldberg comic without the explanation (more images available at: www.rubegoldberg.com/gallery)
- Observe & Infer handouts provided
- Small post-it notes (in two colors)

Part 2: Design and Build a Crazy Machine

(These materials can vary from classroom to classroom, based on the resources available)

- Classroom items: books, markers, math manipulatives, etc.
- Recycled materials: small, medium and large plastic containers, paper tubes, cardboard, water bottles, etc.
- Dollar store items: straws, skewers, dowel, dominoes, marbles, Styrofoam balls, paper clips, etc.
- Other items: small balls, marbles, dominoes, Lego, snap cubes, tape, glue, scissors, rulers, pencils, etc.