

Name \_\_\_\_\_

## G. Activity Guide.

**Note: If you see \*\*\* that means do whatever the directions say and have a teacher, parent, chaperone, or explainer check and initial that you did it.**

### Go to the “Crank Power” display.

- Hook the BLUE wire to the radio, the RED to the fan, and the YELLOW to the head light. Crank each one. Which is the hardest to crank? a. blue b. red c. yellow \_\_\_\_\_
- Which is the easiest to crank? a. blue b. red c. yellow \_\_\_\_\_
- Hook all three wires to the headlight. Get help from others. Crank all three cranks. Do the cranks turn easier or harder when hooked together then when you turned the yellow one alone as in #1 above ? a. Easier, b. harder c. the same \_\_\_\_\_
- Each crank is connected to a (a. motor b. generator c. treadmill) which produces the electricity used to make the fan, radio, mixer, or light to work. \_\_\_\_\_
- Use the extra cords and the red crank and make more than one appliance work. \*\*\* \_\_\_\_\_
- Would you be able to power all the electrical appliances at one time in your house with one large crank? Yes/ No \_\_\_\_\_

### Go to the “Catenary Arch” (Red blocks).

- Put the blocks on the board with the black stripes on the inside. Lift the board slowly and try to get the arch to stand on its own. \*\*\* \_\_\_\_\_
- There is a real Catenary arch that you can tour in:  
a. Los Angeles b. New York c. Lancaster d. Saint Louis \_\_\_\_\_
- Each block is held in place by: a. pressure from it’s neighboring blocks b. magnetism  
c. glue d. wind e. water pressure \_\_\_\_\_ Gently knock down the arch.

### Find the “Light it up” Display near the Café.

- All the bulbs are 120 volt lights. Which of the light bulbs burns out the fastest? A. LED  
b. incandescent. C. fluorescent d. halogen \_\_\_\_\_
- Which bulb is the uses the least amount of electricity per hour? The initial cost is pretty expensive. a. LED b. incandescent. C. fluorescent d. halogen \_\_\_\_\_
- Which (not too expensive bulb) are lots of people switching to in order to save electricity?  
A. LED b. incandescent. C. fluorescent d. halogen \_\_\_\_\_

