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## DIY ACTIVITY

# CREATE YOUR OWN S'MORES MAKER GRADES 3-5

### OBJECTIVES

- Build a device that transfers light energy to heat energy.
- Test the capabilities of the device and make improvements to the design.

### PROCEDURE



#### WATCH THE GENERATION GENIUS ENERGY TRANSFER VIDEO.

1. Tape the edges of the box closed. With adult supervision, use a box knife to cut a large door into one of the largest flat sides.
2. Line at least the top (inside of door) and bottom of the inside of the box with foil. You may need to use tape to secure it.
3. Place black construction paper on top of the foil on the bottom of the box. Make sure not to cover up all the foil.
4. Construct a s'more by placing a few squares of chocolate and a marshmallow between two halves of a graham cracker. Place the s'more on the construction paper.
5. Cover the opening made by the door with plastic wrap.
6. Place the box in the sun.
7. Later, remove the s'more from the box. The chocolate should have melted. Eat the s'more!

### MATERIALS NEEDED

- Box
- Foil
- Box knife
- Plastic wrap
- Black construction paper
- Scissors
- Tape
- Sunny day
- Graham crackers
- Chocolate bar
- Marshmallows

**Activity Duration:** One+ 45-minute class period

### WHAT IS GOING ON HERE?

Light from the sun enters the foil-lined, plastic wrap-covered box. It is then converted to heat that melts the chocolate.

### FURTHER EXPLORATION

Will your solar-powered oven convert enough light into heat energy to cook other things? Use a thermometer to measure how hot your oven gets. See whether you can find a recipe that can cook at temperatures your oven reaches. If it doesn't get hot enough, what adjustments could you make to increase the heat?