

SOLAR ENERGY AS A RESOURCE

MATERIALS LIST

ACTIVITY #1. Radiation.

- electric stove, heater or hot plate
- a small sheet of glass (about 4" square), or a large beaker can be used.

ACTIVITY #2. Reflection and absorption.

- a magnifying glass
- sunlight
- a piece of newspaper
- a piece of charcoal or a black marker
- a digital thermometer or thermal sensor
- a piece of white paper
- a hot lamp
- black paper

ACTIVITY #3. Molecular motion.

- ice
- a small pan
- water
- thermometer or thermal sensor
- a hot plate or burner

ACTIVITY #4. Heat capacity.

- a hot plate or a burner with stand
- a screen (on the hot plate or on the stand)
- 150 ml of tap water
- 500ml Pyrex beakers (two of them)
- thermometer or thermal sensor
- salt

ACTIVITY #5. Selective surface.

- a soup or soda can (black or painted black)
- cold tap water
- thermometer or thermal sensor
- a 150- or 200-watt electric light bulb
- a large glass jar or beaker (to go over the can)

ACTIVITY #6. Solar panel.

- solar panel (A typical calculator panel, or a bigger one if available)
- a voltmeter
- a current meter
- (if available) probes and sensors to record measurements

ACTIVITY #7. Distillation.

- a hotplate
- two clean pans
- a clean drinking glass or beaker
- 2 glassfuls of water
- 4 teaspoons of salt
- ice

ALPHABETICAL INVENTORY LIST

(items that may be peculiar to this course)

- 150- or 200-watt electric light bulb
- 500ml Pyrex beakers (two)
- black paper
- charcoal (or black marker)
- current meter
- digital thermometer or thermal sensor
- electric stove, heater or hot plate
- glass (drinking, clean)
- glass, small sheet, about 4" square, or a large beaker
- hot lamp
- hot plate or a burner with stand
- ice
- large glass jar (to go over the soup can)
- magnifying glass
- measuring spoons
- newspaper
- pans, clean (two)
- probes and sensors to record measurements (if available)
- salt
- screen (on the hot plate or on the stand)
- solar panel (A typical calculator panel, or a bigger one if available)
- soup can (black or painted black)
- sunlight
- thermometer or thermal sensor
- voltmeter
- water
- white paper