



Activity 3.2

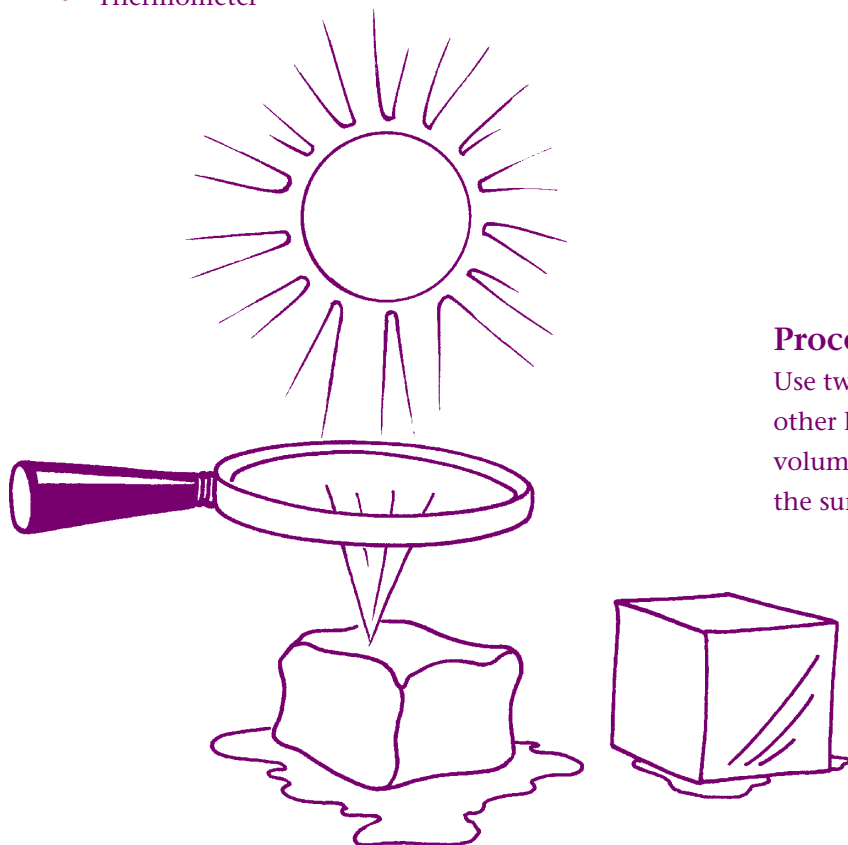
SOLAR ENERGY TO HEAT ENERGY

Aim:

When you have completed these activities you will have experienced the conversion of solar energy to heat energy.

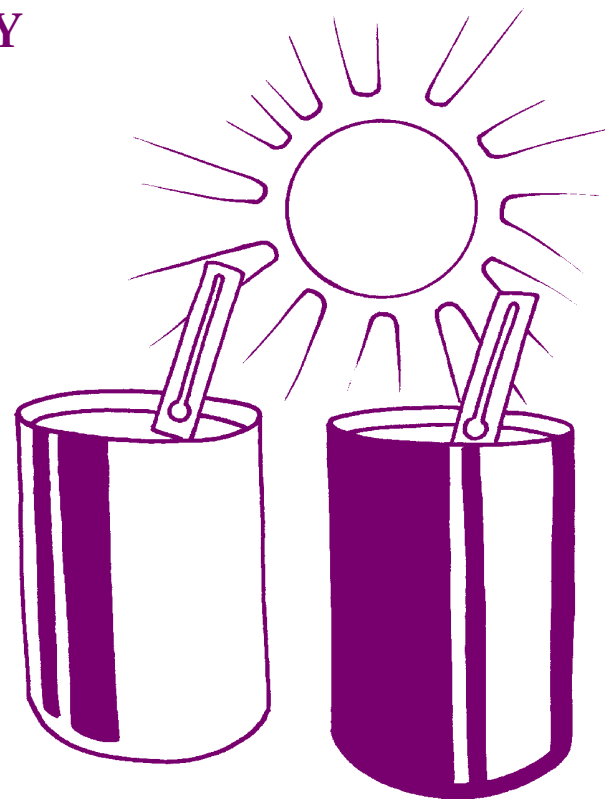
You will need:

- Magnifying glass
- 2 ice cubes
- Stopwatch or timer
- Two jam tins, (one shiny, one painted matte black)
- Thermometer



Procedure:

- Place ice cubes on saucers.
- Hold magnifying glass over one ice cube.
- Time the difference the magnifying glass makes to melting.



Procedure:

Use two identical jam tins. One has a shiny outside. The other has the outside painted dull black. Put the same volume of water in each tin, then leave them in the sunlight.

After some time test the temperature of the water with a thermometer. Is the water in the black tin warmer than the water in the shiny tin?

The tin with the black outside has absorbed solar radiation which has changed into heat energy. The tin with the shiny outside has reflected the solar radiation.