

## COLLECTING ENERGY FROM THE SUN



Can you find out which shape makes the best collector?

### You will need:

- A variety of different sized foil dishes (from pies, ready meals etc)
- Black waterproof paint
- Clingfilm
- Old newspapers
- Thermometer
- Small beaker
- Bottle of water
- 100cc measure



*Paint the insides of the foil dishes with the black paint the previous day to make your solar collector. (Which one do you think will be the "best"? What does "best" mean?)*

### What to Do

- Measure 100cc of water into each container
- Wrap cling film around each container
- Put the containers on a bed of newspapers out in the sun

### What to Measure

- After ten minutes pour each amount of water into the small beaker and measure the temperature.
- Record your results.

### What did you find out from your results?

*You should find that the shallowest and widest container is "best". This one heats the same amount of water to a higher temperature.*

### Think About:

- What you did to make this a FAIR test?
- Why you used the newspapers?
- What you would change to make the test more accurate next time?
- Why it is useful to know that some shapes absorb more energy than others?

