

Challenge Card

Scouts Go Solar - Heat

Community



Do you know about solar energy?
Would you like to do some fun activities using solar energy?
Scouts Go Solar has a range of fun activities you can complete to learn more about solar energy.

Key SPICES Growth



Social



Physical



Intellectual



Character



Emotional



Spiritual

Likely Scout Method Element/s



Community Involvement



Learning by Doing



Nature and the Outdoors



Patrol System



Personal Progression



Promise and Law



Symbolic Framework



Youth Leading, Adults Supporting

Best For



Joey Scouts



Cub Scouts



Scouts



Venturer Scouts



Rover Scouts

Plan>

Colour can impact the amount of heat produced.

Gather the equipment you need to complete the experiment:

Thermometer

4 bottles of similar size (e.g. soft drink bottles or milk bottles)

You will need to paint 3 of them, one black, one yellow and one could be either blue, green, or red.

Leave one bottle clear.

You will need to do this activity on a day with sunny weather.

Contact the National Coordinator for Better World Scouting if you have any questions.

betterworld@scouts.com.au

Do>

1. Paint your bottles and leave them to dry.

2. Fill the bottles with the same amount of water in each and take them outside.

3. Take the temperature of each bottle of water and record this.

4. Leave the bottles together in the sun for 30 minutes.

5. Predict which bottle you think will have the highest temperature when you return.

6. Re-measure the water temperatures.

Review>

1. Which coloured bottle had the highest temperature?

2. Why do you think this coloured bottled created the most heat?

3. What decisions might you make knowing about the impact of colour on solar heat? For example, the best coloured t-shirt to help keep you cooler on a hot day in the sun.

