

# Make use of the power of the sun!

## Materials and equipment:

- sunshine
- 2 large pieces of black plastic foil (e.g. cut open large garbage bags)
- garden hose and water
- spray nozzle
- 4 large stones (or more if it is windy)



As you know, the sun warms our earth's atmosphere. Even though the sun continues to shine with the same intensity, the temperature on earth is rising, due to our greenhouse gas emissions. Our next "climate-protection experiment" shows how we can make use of the power of the sun and by doing so also reduce greenhouse gas emissions.

## The experiment

- Spread one of the plastic sheets on the ground.
- Lay down the garden hose, which must be filled with water, onto the plastic sheet in a spiral.
- Cover the hose with the second black sheet and weigh it down with stones at the edges.



## Make use of the power of the sun!



After about 45 minutes in bright sun shine you can take a warm shower with the water from the hose!

**Attention: The water can be hot!**

**Do you have any idea where and how we can make use of this effect?**

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### What happens during the experiment?

The water in the hose is heated by the sun. Dark surfaces are heated especially strongly.

We can also use this effect to generate hot water in our homes. This way we save carbon dioxide emissions when showering or heating and protect the climate.



**Maybe you have seen black panels on a house like the one on the left. These either are made to produce hot water as in our experiment or to generate electricity. The sun powers both!**