

Solar-powered Shower

You need ✓ a ruler

✓ a classmate

Our power bill's gone up again!
I think you're spending too long
in the shower.

Then let's build a
solar-powered shower!

Activity

Melissa and her mum work out the benefits of a solar-powered shower. At the moment, Melissa's mum pays \$40 a month in electricity for the shower. A solar-powered shower would cost \$3,000 to install, but then she wouldn't have to pay for any more power for the shower.

- How much does Melissa's mum spend on electricity for their shower per year?

To find out how long it would take for their solar-powered shower to pay for itself, Melissa draws a graph.

- Copy and complete Melissa's graph.
 - Use the graph to estimate when the solar-powered shower would pay for itself.
 - Calculate exactly when the solar-powered shower would pay for itself.
 - Mum will only install solar power if it pays for itself within 5 years. Will she install a solar-powered shower?

- The electricity company suddenly puts up its prices. Now it will cost Melissa's mum \$60 a month to pay for the electricity for their shower.
 - Work out when the solar-powered shower will pay for itself with the new power price.
 - Will Mum install the shower now?

Cost of Shower Heating

