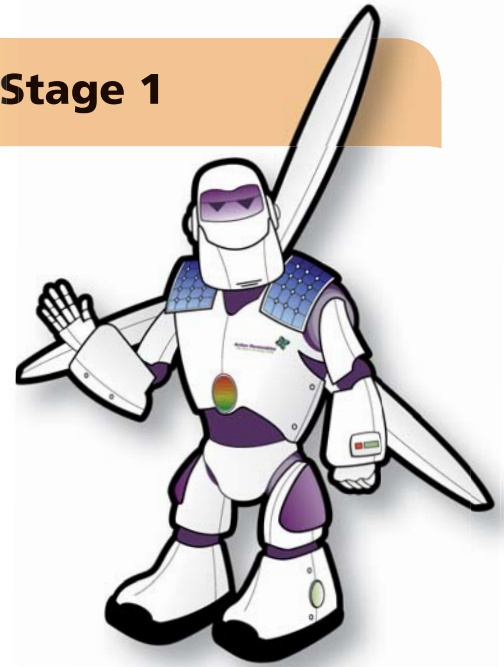


# Solar Energy



How can energy come from the sun?

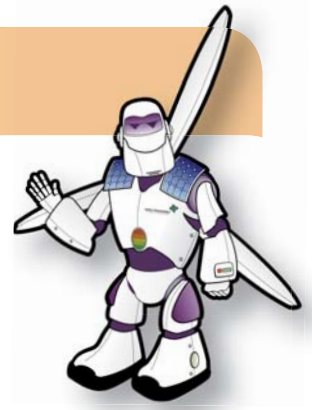
Renewable Robbie found out a lot about the sun. Do you know much about it? Do you know that without the sun, none of us would be here and there would be no life on earth?

The sun is really, really big. It is actually the closest star to the earth! Renewable Robbie didn't know the sun was a star!



**Solar energy** simply means energy (light or heat) that comes from the sun! It is solar energy that makes you feel really warm on a nice, warm summer's day. It makes you feel really hot if you are sitting in a car with the sun shining in. It makes the plants grow which give humans and animals food to eat!





Renewable Robbie has found out that without the sun, all life on earth would die!

Solar energy gives us light and heat. The heat can be used to make hot water and the light can help to make electricity for our houses, schools and other buildings!

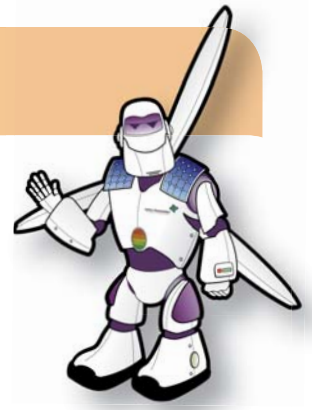
Look at three ways the sun can be used as energy:

1. Have you ever sat in a car on a hot day? Renewable Robbie doesn't like it because he gets too hot! It is because the glass attracts heat from the sun. Some buildings use a lot of glass to get heat from the sun to warm the rooms. Look at the picture below:



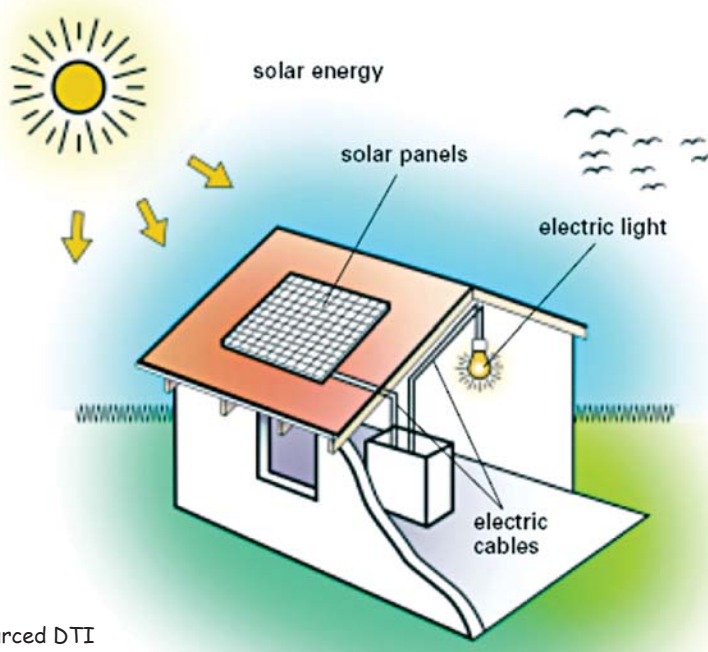
2. Hot water can come from the sun if solar panels are put on the roof of a house. This next picture will show you what solar panels look like:





The light from the sun passes into the pipes. The pipes are filled with water and the water heats up. The water is kept in a tank and can give us hot water!

3. In order to get electricity from the sun, solar panels called PV panels are put on the roof of a building!



Sourced DTI

When the light from the sun shines onto the solar panels, the light is turned into electricity!





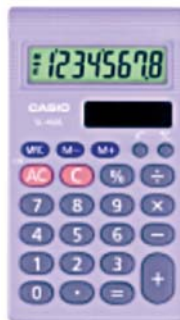
We can use it to power TV's, radios, lights or computers!

Solar energy is good because:

- The sun's energy will not run out so it is renewable.
- Solar panels do not damage the air.
- The sun gives us light and heat for free.
- Energy from the sun is quiet and safe.

### Examples of using solar energy

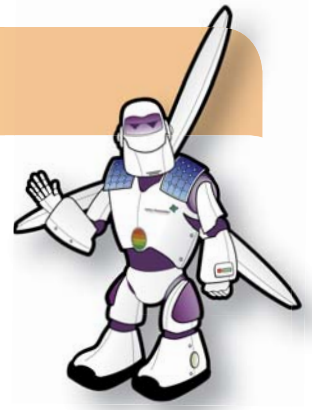
Some calculators use solar energy instead of batteries to work!



Courtesy of Casio, sourced DTI

Houses can use solar power to heat them. Renewable Robbie went to a place called Camphill Community in Holywood in Northern Ireland. The houses here have solar panels on the roofs. Solar energy provides them with hot water so they save a lot of money on oil! Look at the picture below:





Renewable Robbie found out that other buildings use solar power to give them electricity like this chalet below in the Share Holiday Village in Northern Ireland:



Renewable Robbie hopes you enjoyed learning about solar power. Join him now to do some activities!

