

You Can... Explore solar energy

Solar energy is an exciting energy form. If you already have solar panels on your school or are considering them you will, most likely, have your children's unequivocal support. Solar panels, along with wind turbines, show a genuine and financial commitment by the school for environmental sustainability. Even if you can only afford one panel (and bear in mind that 'green' energy match-funding grants are available) it will demonstrate what energy possibilities are available to your children and their families.

Thinking points

- There are, essentially, two different types of solar cell: photovoltaic and thermal. Photovoltaic, as the word implies (photo = light, voltaic = electricity), converts sunlight directly into electricity. These cells are commonly referred to as PV solar cells. Once used almost exclusively in space, photovoltaic cells are used more and more in domestic situations, such as providing power for your school or home. Thermal cells are heat extractors and are useful for heating.
- Solar cells are not cheap. Your headteacher and chair of governors will have to be convinced that buying into solar energy is of good educational and financial sense. Solar cells are also heavy. A standard array can weigh as much as a small car. You will need a structural survey to ensure that your roofs are strong enough.

Tips, ideas and activities

- Solar panels are found in a wide range of devices aside from large-scale energy or heat collectors. Calculators have run off solar panels for many years and there is an increasing range of products available from small fans of cells that will charge a mobile phone or mp3 player to A4 size cells that will charge a laptop. These products are not cheap but neither are they prohibitively expensive and even one example should be considered a good investment.
- In some cases, solar cells bought for schools will come with a meter that the children can read. It is a useful data handling exercise to record the meter readings over a period of time. This is real-life data where identified trends have a real consequence and meaning.
- Involve your children in the whole scheme from when you meet with engineers and architects to the final installation. It may well be a unique opportunity for them.
- Schools in Andalusia, Spain, routinely have solar panels installed across all available roof space and a few UK boroughs and counties are considering following the same route. Panels are very efficient – they require daylight in most cases not just pure sunlight.
- Think big. Even if you can only afford one panel at a time it is worth evaluating your total roof space. Decentralised energy collection is far more efficient than that found in your standard plug socket. Effectively you need to collect less than you do when relying on centralised mains electricity.

