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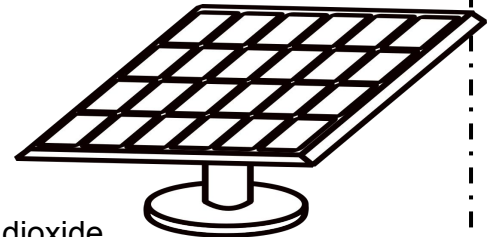
Solar Power

Don't you love the sun? Sunlight is necessary for your body to produce vitamin D as well for plants to make their own food by the process of photosynthesis. But sunlight can also be used to create power. We can use solar power in two different ways - as a heat source, and as an energy source.

Solar energy can be used to heat water for use in homes, buildings, or swimming pools; to heat spaces inside homes, greenhouses, and other buildings; and to heat fluids to high temperatures to operate turbines that generate electricity.

Solar energy can be converted into electricity in two ways:

- Solar Cells: Also known as Photovoltaic cells (PV), *solar cells* change sunlight directly into electricity. Individual PV cells are grouped into panels and arrays of panels that can be used in a variety of applications ranging from single small cells that charge calculator and watch batteries, to systems that power single homes, to large power plants covering many acres.
- Solar thermal/electric power plants generate electricity by concentrating solar energy to heat a fluid and produce steam that is then used to power a generator.



There are two main benefits of solar energy:

- Solar energy systems do not produce air pollutants or carbon dioxide.
- When located on buildings, solar energy systems have minimal impact on the environment.

You might be wondering why we don't use solar electricity all the time.

Solar power systems make a different kind of electricity than big power plants do, so different wiring is needed and that can be expensive.

There are a few big solar power plants in the United States, mostly in California. It's difficult and expensive to make a lot of electricity using photovoltaics because the panels cost are expensive, and a lot of open land is needed.

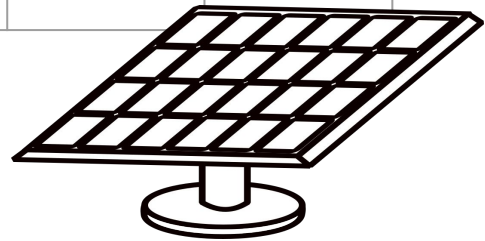
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What Can be Powered by the Sun?

Before you do research, make educated guesses.

Are there solar powered...	yes	no
cars		
airplanes		
submarines		
laptops		
Contact lenses		
fountain		
Water bottle		



Which surprised you the most? Why?

What is something that requires energy that you think could be converted to use solar power? _____

Has anyone tried? Do quick internet research. _____