

# PicoTurbine

## Solar 101

### Preview

#### Recommended Materials:



Deluxe Solar Educational Kit



Solar Power Racer



Living with Renewable Energy DVD

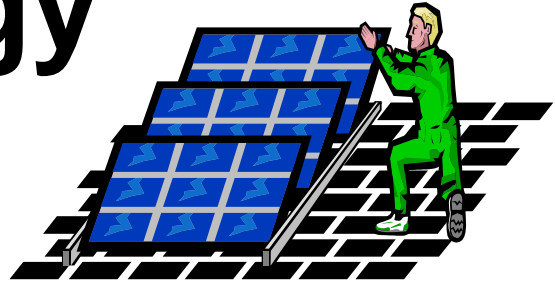
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# Solar Energy Types



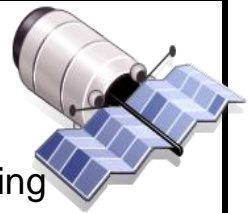
While Solar Energy is a major type of renewable energy, there are different branches within it. Specifically there is solar thermal energy and photovoltaic solar energy. Both of these use the heat and energy from the sun to create energy.

Solar Thermal	Photovoltaic
Define:          Give an example:	Define:          Give an example:

## *Did You Know?*

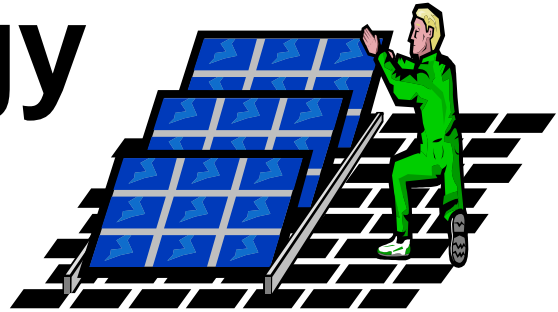


Solar energy expanded greatly during the great space race. The word **photovoltaic** is broken down simply to **photo-** meaning light and **voltaic-** meaning to produce electricity/energy. Photovoltaic cells convert the sunlight into usable energy. Many satellites now use solar energy because they never wear out, and produce clean energy.



Name: \_\_\_\_\_

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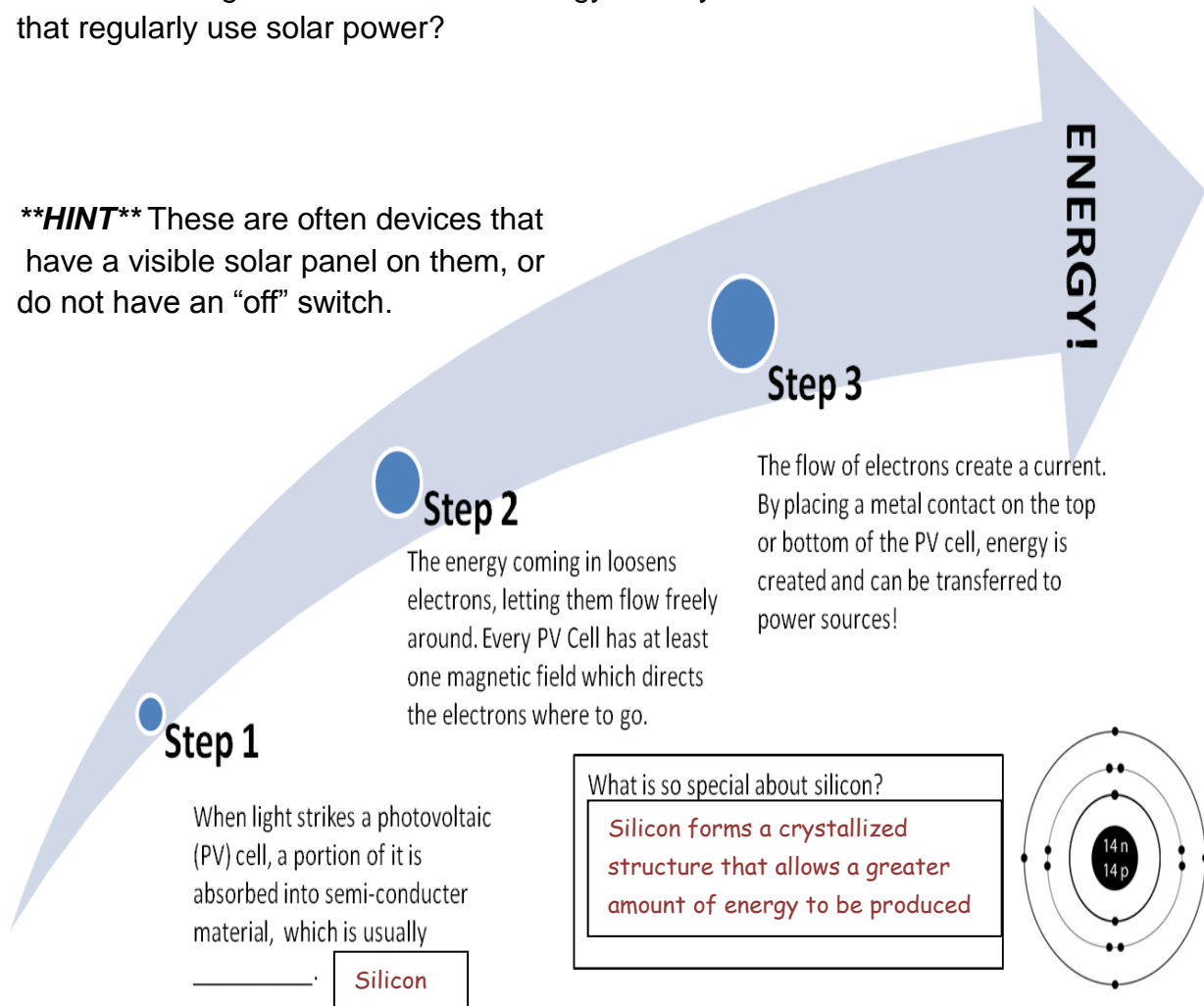


# How Photovoltaic Cells Work



Now that you know some of the benefits of solar power, let's discover how solar energy works. First, let's examine how a photovoltaic cell converts sunlight into electricity. Below are the three basic steps that occur in a photovoltaic (PV) cell when sunlight is converted into energy. Can you think of some common devices that regularly use solar power?

**\*\*HINT\*\*** These are often devices that have a visible solar panel on them, or do not have an "off" switch.



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