CO-CREATE SOLAR PANEL: HOW TO

1

What is a Solar Panel?

A solar panel is a device that converts sunlight into electricity by using photovoltaic (PV) cells. PV cells are made of materials that produce excited electrons when exposed to light that produce power.

Sample solar panel for classroom use

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Why does renewable energy or solar energy matter for the climate and the environment?

a. Access to safe and clean renewable power sources are essential to the growth and well-being of learners, schools and school communities
b. Enables students to understand the importance of and means to generating and accessing clean energy
c. Eventual reduction of environmental degradation caused by harmful practices to generate power and energy, such as charcoal burning and fossil fuels,
d. It reduces air pollution leading to improved health and sustainable environments

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How is renewable energy connected to the broader climate action teacher champion toolkit?

- Understanding and using renewable energy is essential to changing behaviours related to harmful energy production and as a teaching tool to learn about solar powered energy. If solar can be increasingly used as a solution for energy and power, the other climate actions in our solutions will also be supported through cleaner soil, air, and water. The solar solution can also help charge teaching devices, such as smartphones and tablets.

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Materials Needed:

a. Solar Panel
b. Battery
c. An Inverter
d. Cables and connectors

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How do I set up the solution?

1. Choose a suitable location that has direct sunlight and will not be impacted by rain or water.
2. Connect the solar panel(s) to the charge controller.
3. Connect the charge controller to the battery.
4. Connect the battery to the inverter.
5. Test the system.

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What will I see if the solar panel is working?

- Energy production leading to light and/or charged devices, such as tablets and smartphones
- Increase engagement in learning through more interactive class activities and lessons
- Student interest in learning the mechanisms of setting up and using the solar panel
- Replication or adoption by the school and/or the surrounding communities of solar energy use