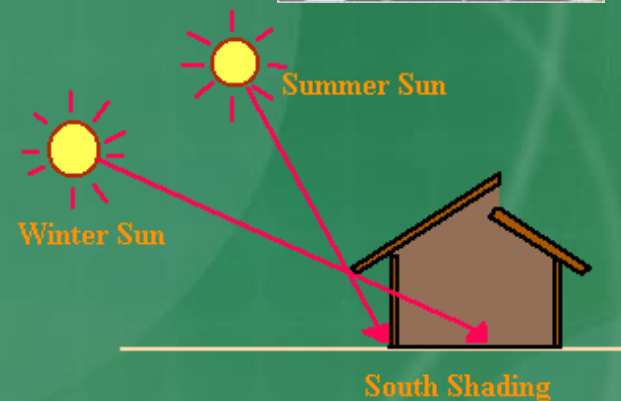
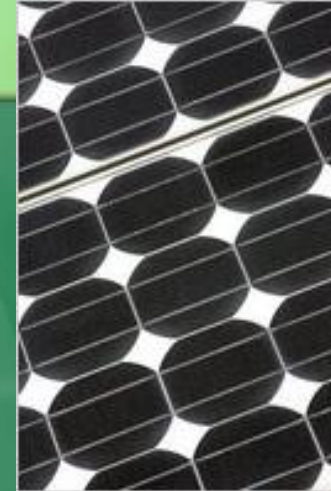


Lets Design a...

**Net-Zero Energy
Classroom!**

Create Power on Site

- ❖ Active Solar – PV (Photovoltaic) Panels convert sunlight into electricity.
- ❖ Wind Power – When the wind blows, the blades spin a turbine which generates electricity.
- ❖ Passive Solar Heating – Light shines through south facing windows and warms the inside space.
- ❖ Daylighting – Use outside light instead of turning on lights.



Efficient Use of Power

- ❖ Lights – CFLs (spiral bulbs) use $\frac{1}{4}$ the energy of incandescent lights (regular bulbs).
- ❖ Computers – putting computers, speakers and monitors on a power strip that you can turn off saves energy when you are not using it.
- ❖ Air Conditioning and Heating – power is needed to run a fan that blows air into the space and to power the heating and cooling device. Very efficient models are available.



Monitor and Controls

❖ Smart Meter –

- Tracks the total amount of power being used and communicates with the utility.
- Allows extra energy to flow into the grid. The utility will use your extra power and pay you \$\$\$ for it.



❖ Programmable thermostat –

- Allows temperature to adjust when occupants are not in room. Saves heating and cooling energy.



Water Conservation

- ❖ Water storage tank – rain water that hits the roof is collected and stored to water plants or even to flush toilets
- ❖ Xeriscape – Using native plants or lawn features that do not require much or any watering.



Reducing Waste

- ❖ **Recycle** – paper, bottles, cans and other items can be recycled instead of being put in the trash can and ending up buried in the ground.
- ❖ **Compost** – Food scraps can be put in a compost pile where they will decompose. Compost makes nutritious soil for plants.

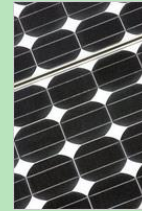


The image features a vibrant green background with a repeating pattern of small, semi-transparent circles. A large, light-green circle is centered on the page, containing the text "Have fun!". The overall aesthetic is bright and cheerful.

Have fun!

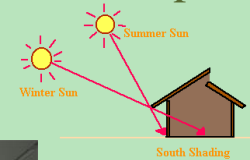
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