

Reading 2

Skills:

- Language connections
- Language function
- Collocations

Getting started: Do you know how solar power is used nowadays?

SOLAR POWER

SUNPOWER®
How Solar Works

- Sunlight**
When sunlight hits a solar panel, photons (particles of energy) are converted into electrons.
- Solar Cell**
As electrons pass through the cells of a solar panel, they're converted into direct current (DC) electricity.
- Inverter**
That electricity is sent to an inverter which converts it into alternating current (AC) power.
- Home Appliances**
That AC power runs through your home ready to power appliances, charge devices and more.

Solar power is the most abundant _____ (1) of energy on Earth. About 173,000 terawatts of solar energy strike the Earth at any given time - more than 10,000 times the world's total energy needs. By capturing the sun's energy and turning it _____ (2) electricity for your home or business, solar energy is a _____ (3) solution in combating the current climate crisis and reducing our dependence _____ (4) fossil fuels.

Our sun is a natural nuclear reactor. It releases tiny packets of energy called photons, _____ (5) travel the 93 million miles from the sun to Earth in about 8.5 minutes. Every hour, many photons impact our planet to generate enough solar energy to satisfy global energy needs for an entire year.

Currently, photovoltaic power accounts for only five-tenths of one percent of the energy consumed in the United States. But solar technology is _____ (6) and the cost of going solar is dropping rapidly, so our ability to benefit from the sun's abundance of energy is on the rise.

Many homes in the future will be powered by solar panels, but how _____ (7) this system work? Solar panels are made up of _____ (8) solar cells. Solar cells are made of silicon, like semiconductors. They are constructed with a positive layer and a negative layer, which together create an electric field, just _____ (9) in a battery. When photons hit a solar cell, they knock electrons loose from their atoms. _____ (10) conductors are attached to the positive and negative sides of a cell, it forms an electrical circuit. When electrons flow through such _____ (11) circuit, they generate electricity. Multiple cells make up a solar panel, and multiple panels can be wired together to form a solar module. The more panels you can install, the _____ (12) energy you can expect to generate.

Here's an _____ (13) of how a home solar energy installation works. First, sunlight hits a solar panel on the roof. The panels convert the energy to DC current, which flows to an inverter. The inverter converts the electricity from DC to AC, which you _____ (14) then use to power your home. It's beautifully simple and clean, and it's getting more efficient and affordable all the time.

**Adapted from <https://us.sunpower.com/solar-array-definition>*

Choose the correct option for gaps 1-14 in the text.

- | | | |
|--------------|---------|----------|
| 1. source | number | group |
| 2. up | out | into |
| 3. obvious | key | military |
| 4. at | of | on |
| 5. who | what | which |
| 6. improving | improve | improved |

7. do	was	does
8. many	so	much
9. as	like	how
10. if	unless	in case
11. an	a	as
12. more	most	much
13. instance	case	example
14. can	must	would

What do you think?

Do you think everything will be powered by solar energy in the future, and other types of electricity or fossil fuels won't be needed?