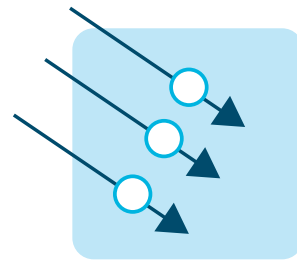


# Solar energy

## Power Smart for Schools®

Photons (sunlight) travel in straight lines toward silicon atoms present in PV cells.

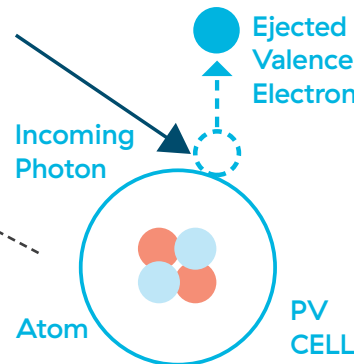
Incoming Photons



PV CELL

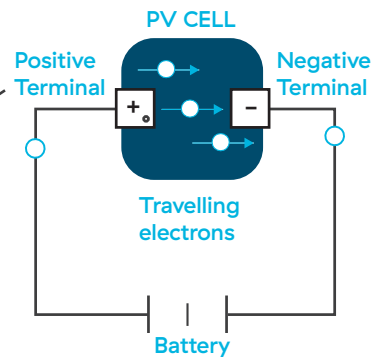
Photovoltaic cells (PV cells) contain a material composed of a special arrangement of silicon atoms.

Photons collide with the silicon atoms within the PV cell. The photon's energy will be transferred to an electron in the atom's valence shell.



The energy causes the electron to be ejected from the atom.

This ejection starts a chain of events which sends electrons travelling along a straight path from a positively charged terminal to a negatively charged terminal.



From the negative terminal, the electrons flow out into a circuit.

Remember—the flow of electrons through a circuit is the definition of “electric current” (electricity).