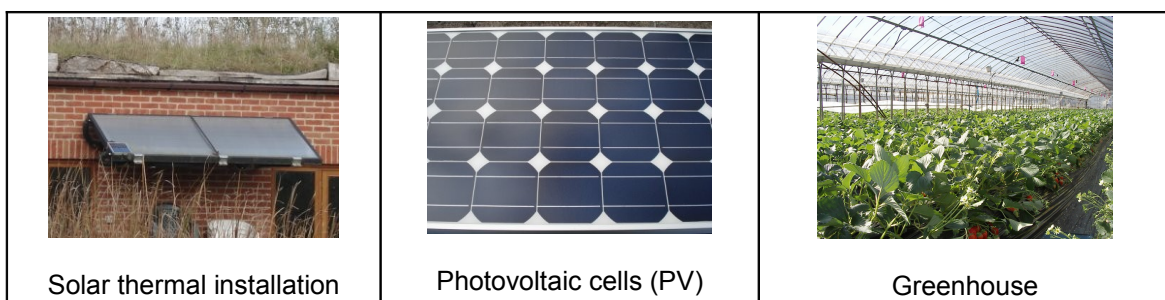


## STUDENT 1

The Sun releases a big amount of energy. Without it, life would not exist on our planet. Solar energy can be converted into other forms of energy, such as **heat** and **electricity**.

- Solar energy can be converted into **thermal (or heat) energy** and used to:
  - ✓ Heat water – for use in homes, buildings, or swimming pools.
  - ✓ Heat spaces – inside greenhouses, homes, and other buildings.
- Solar panels, called photovoltaic cells (PV) are used to convert the Sun's energy into **electricity**. They were originally developed in the 1950s to provide energy for satellites. They are made of silicon, a special type of melted sand.



## STUDENT 2

### How solar panels work



Solar panels convert sunlight into electricity. When the sun shines on “solar cells,” they absorb its energy causing a chemical reaction that generates electricity which can be used in homes and factories or can be stored in a battery.

Solar cells are very small and they produce a tiny electric current, so lots of them are joined together in panels. The simplest photovoltaic

systems power small calculators and wristwatches.

More complicated systems provide electricity to pump water, power communications equipment, and even provide electricity to our homes. For example, solar energy is commonly used for domestic lighting, street lighting, water pumping and railway signals.

