

# SOLAR ENERGY

- **OBJECTIVE** : Discovering another renewable energy
- Production techniques and exploitation from an individual to a global scale
- **Final Task**: Explanation in a short summary what this renewable energy can represent in our society

C:\Users\patricia\Documents\renewable energy p  
roductions\solar energy\How\_Solar\_Panel\_Works.  
flv  
<https://www.youtube.com/watch?v=Y0InAuhAre4>

# Act n° 1 : lexical activity

- Listening to the document, quote the difficult words in order to link them to their translation in a second activity

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# Act n° 1 : lexical activity: on an online dictionary find the English definitions of the words below

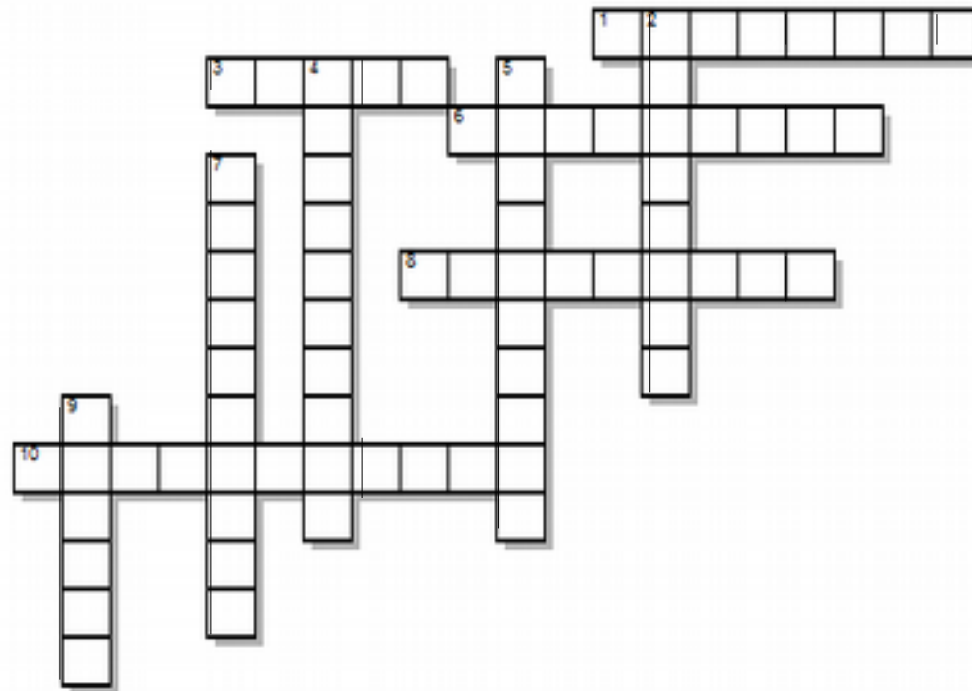
- Solar panel
- Solar cell
- To shine
- A process
- A layer
- Glass
- An electron
- Conductive
- Sensitized dye:
- Electrolyte
- Catalyst
- To release

# Act n° 1 : lexical activity: on an online dictionary find the English definitions of the words below

- Solar panel : a panel exposed to radiation of heat from the sun when mounted with solar cells, to produce electricity
- Solar cell : a device that produces electricity from the sun's rays
- A process: series of things which happen naturally and result in a biological or chemical change
- A layer: a thickness of some homogeneous substance such as a coating on a surface
- Glass: a hard transparent substance that is used to make things such as windows and bottles
- An electron: a tiny particle of matter that is smaller than an atom and has a negative electrical charge
- Conductive: a substance which is able to conduct heat or electricity.
- Sensitized dye: silicon layer modified by either phosphor (missing an electron) or bore( exceeding electrons)
- Electrolyte: a substance, usually a liquid, which electricity can pass through
- Catalyst: In chemistry, it is a substance which fastens a chemical reaction
- To release: when a substance is released it means that it's freed from it's first structure

# Act n° 2 crossword

solar energy



## ACROSS

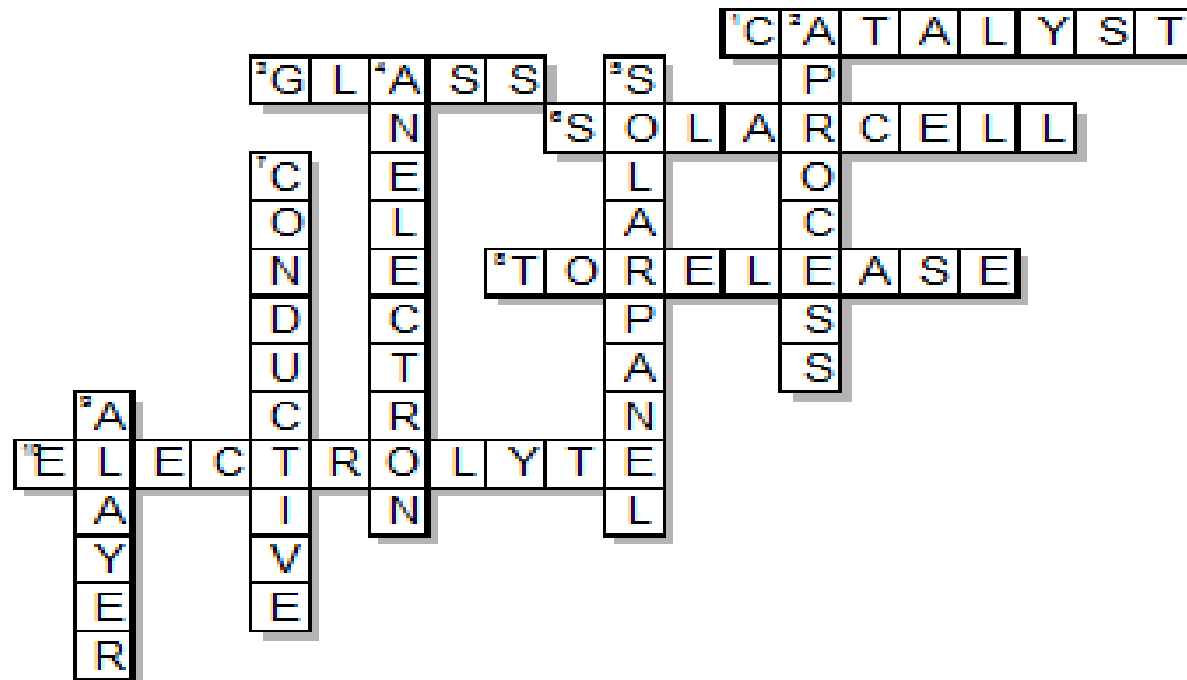
- 1 CATALISEUR
- 3 DU VERRE
- 6 CELLULE PHOTOVOLTAIQUE
- 8 LIBERER
- 10 ELECTROLYTE

## DOWN

- 2 UN PROCEDE
- 4 UN ELECTRON
- 5 PANNEAU SOLAIRE
- 7 CONDUCTEU
- 9 UNE COUCHE

# Crosswords answers

solar energy



# Act n°3: INTERMEDIATE TASK: complete the following text with the help of those words

- Solar cells
- process
- Electrons
- Solar panels
- Layer

- A ..... the sun's light into electricity!
- One solar panel is made up of many small ..... Each of these cells uses light to make ..... move. The cell is made up of two different layers that are stuck together. The first ..... is loaded with electrons, so the electrons are ready to jump from this layer to the second layer. That second layer has had some electrons taken away, so it is ready to take in more electrons.
- When the light hits an electron in the first layer, the electron jumps to the second layer. That electron makes another electron move, which makes another electron move, and so on. It was the sunlight that started .....which consists in the flow of electrons, or electricity



# answers

- A solar panel turns the sun's light into electricity!
- One solar panel is made up of many small solar cells. Each of these cells uses light to make electrons move. The cell is made up of two different layers that are stuck together. The first layer is loaded with electrons, so the electrons are ready to jump from this layer to the second layer. That second layer has had some electrons taken away, so it is ready to take in more electrons.
- When the light hits an electron in the first layer, the electron jumps to the second layer. That electron makes another electron move, which makes another electron move, and so on. It was the sunlight that started the process which consists in a flow of electrons, or electricity

# How Home solar power system works?

<https://www.youtube.com/watch?v=m6UgO6-HELc>

# How it really works!



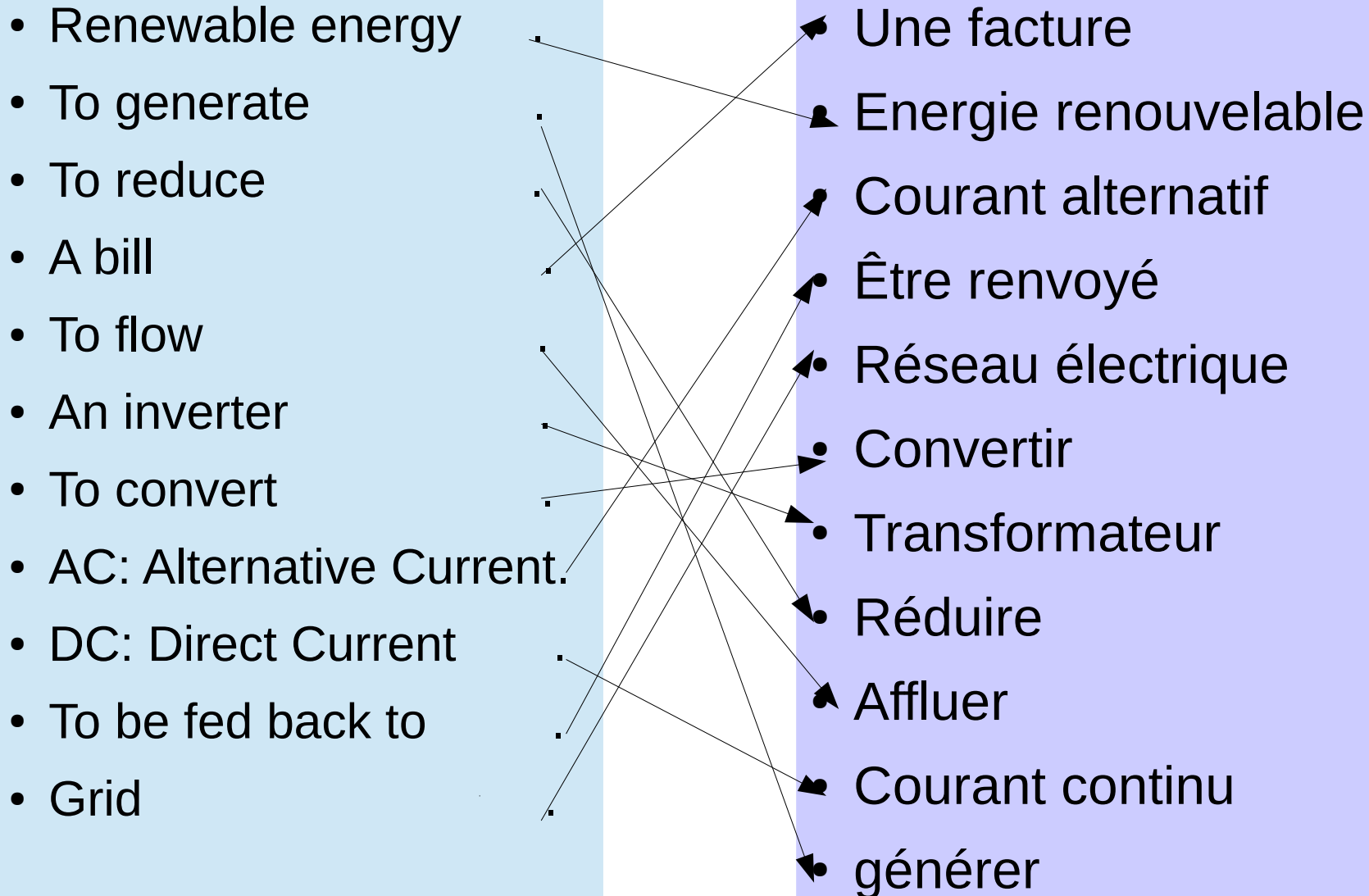
- Solar is a renewable energy resource that uses photovoltaic (PV) systems to create electricity. A solar PV system uses light to generate electricity, which you can then use to power your home or office, reducing your bills and your impact on the environment.
- The sun's light (photons) is absorbed by the solar panel.
- The silicon and conductors in the panel convert the light into Direct Current (DC) electricity, which then flows into the inverter.
- The inverter converts the DC into Alternating Current (AC) electricity, which you can use in your home.
- Any additional electricity that's not used by your home is fed back into the grid.
- Electricity is drawn from the grid when you need more power than your solar energy system can produce.

## Act n° 4: link the words to their translations

- Renewable energy
- To generate
- To reduce
- A bill
- To flow
- An inverter
- To convert
- AC: Alternative Current
- DC: Direct Current
- To be fed back to
- grid

- Une note, une facture
- Énergie renouvelable
- Courant alternatif
- Être renvoyé
- Circuit
- convertir
- Transformateur
- Réduire
- Afluer
- Courant continu
- générer

## Act n° 4: link the words to their translations



# Solar energy in a larger scale



# CESTAS SOLAR POWER PLANT

Looking out from an aeroplane window high above the city of Bordeaux in south-western France, it's hard to miss a mammoth block of more than 300 football pitches worth of solar panels jutting out of the forest, marking dramatic a change from the Aquitaine region's famed vineyards. Europe's largest solar park, standing at a record-breaking 300MW capacity, has been installed at a time of general slowdown in the European solar market, with subsidies slowly but surely being squeezed out of the picture. However, France-based PV developer Neoen managed to complete the park in just 10 months and has now connected it to the grid, marking a major milestone for Europe's somewhat muffled PV ambitions. It is also nearly three times more powerful than the France's second biggest plant, which stands at 115MW.

## Act n° 5: Vocabulary: find translations

- A football pitch
- To jut out
- A slowdown
- Subsidies
- To squeeze out
- Milestone



# Act n° 5: Vocabulary: Choose the right translations

- 
- |                      |                      |
|----------------------|----------------------|
| • A football pitch - | • Un ralentissement  |
| • To jut out -       | • Un terrain de foot |
| • A slowdown -       | • Faire saillie      |
| • Subsidies -        | • Enlever, ôter      |
| • To squeeze out -   | • Subvention         |
| • Milestone -        | • Jâlon, étape       |

# FINAL TASK

- In a short summary explain how solar energy and its techniques can be a hope for our society. In fact, explain the aim of this renewable energy and its aims at an individual scale , a national scale and a global one