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## Activity C2.

Energetic transition. What's the future in the use of energy.

Porto Sant'Elpidio, Marche region, ITALY

Istituto di Istruzione Secondaria Superiore

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# The help of the Technology



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# Electric Vehicles



An electric car is a vehicle powered exclusively by an electric motor that works thanks to the energy stored inside the battery.

So unlike hybrids, electric cars are not supported by any internal combustion engine.

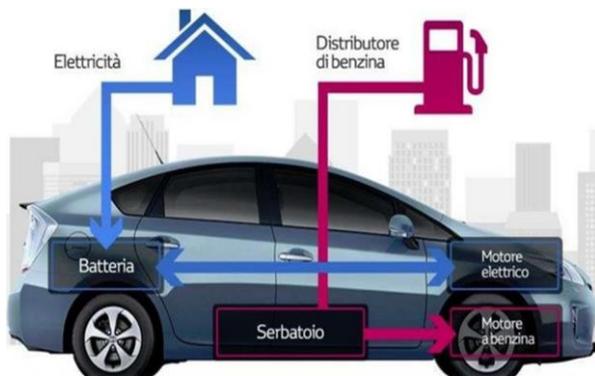


The electric car needs to be recharged periodically with electricity. How do you charge an electric car? There are numerous public stations to recharge the electric car battery: the so-called charging columns.



# Hybrid Vehicles

A hybrid car is a car powered by two separate sources: an internal combustion engine, generally powered by petrol and an electric motor powered by a rechargeable battery.



Electric motor and combustion engine work together to achieve maximum savings in terms of consumption. The battery of hybrid cars does not need to be recharged at a column. How can I charge the battery? Simply thanks to the combustion engine and thanks to the energy recovery system during braking.



# Electric and Hybrid Vehicles



## **ADVANTAGES:**

- Sustainable circulation;
- The engine is quiet and zero emissions (electric);
- Zero-emission cars can circulate anywhere even during traffic blocks;
- In hybrids, the electric motor is able to recover energy, thus allowing considerable fuel savings

## **DISADVANTAGES:**

- The price is certainly the highest in the car sector, even if there are still Eco-bonuses and tax reliefs;
- As for maintenance, the electric motor has fewer components than the thermal one but the technology is more innovative, so interventions are more expensive;
- Electric cars in some parts of Italy are still very rare, both for the high price and for a charging network that is not very extensive in the area, too limited.



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## Smart Houses

The term "**smart house**" refers to a house where some **technological components** are perfectly integrated and connected to each other.



They can be managed from a smartphone or voice device, even remotely, even when we aren't at home

Pictures from: [serenoregis.org](http://serenoregis.org); [eco-bio.it](http://eco-bio.it)



## Smart Houses

### ADVANTAGES:

- Better control of energy consumption;
- Any home can become smart;
- Easier daily life thanks to the automation of activities;
- Objects can be controlled by any electronic device;
- Greater home security.

### DISADVANTAGES:

- If the building is already built, the changes to be made are expensive;
- Managing a smart home can be difficult for an older person;
- The home always depends on the internet connection.

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Thanks  
for your  
attention



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