

Environment and Sustainability: Understand, Care, Act!

In the European Union, cars and vans produce around 15% of CO₂ emissions, which cause climate change. Transportation is the only sector in which greenhouse gas emissions are still greater than they were in 1990.



The European Commission has proposed a 15% reduction in CO₂ emissions by the year 2025 and a 30% reduction by 2030

To reduce the detrimental impact that such gases have on the environment, it has been proposed that the member countries compensate for the emissions they generate through the expansion of forests, which absorb CO₂ from the atmosphere and convert it into oxygen, thus purifying the air.

ACTIVITY

The objective of this activity is to bring awareness to the problems caused by the CO₂ emissions that are produced through transportation.

This activity consists of calculations corresponding to the various means of transportation that were used by the Erasmus+ participants during their travels to Cádiz, Spain. The results of this analysis will be presented in the attached table.

- Firstly, distance travelled (**km**) must be indicated in the table for each method of transportation used to travel from the home country to Cádiz.
- Secondly, the quantity of CO₂ emissions (**kg**) emitted into the atmosphere must be indicated in the table for each method of transportation used to travel from the home country to Cádiz. In performing these calculations, the following

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information must be taken into account:

- 1 km travelled in a typical car using fossil fuel emits 150 grams of CO₂
 - 1 km travelled in an airplane emits 180 grams of CO₂
 - 1 km travelled in a bus emits 30 grams of CO₂
 - 1 km travelled in a train emits 35 grams of CO₂
- Thirdly, the number of trees necessary to compensate for the amount of CO₂ emitted during each trip must be calculated. In performing these calculations, the following information must be taken into account:
- 3 trees are necessary to compensate for **100km** travelled in an airplane
 - 2 trees are necessary to compensate for **100km** travelled in a car
 - 1 tree is necessary to compensate for **100km** travelled in a bus
 - 1 tree is necessary to compensate for **100km** travelled in a train

Country:

Means of Transportation	Distance (km)	CO ₂ Emitted (kg)	# of Trees to Compensate
Total			

- Finally, the total number of trees necessary to compensate for the amount of CO₂ emitted through the means of transportation used during the trip must be represented in a map. (You must draw and cut out the number of trees indicated in the table.)



Erasmus+



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