

CLIMATE PROJECT - PLANNING SHEET

Title: CO2 measurements and planting a tree

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Age: 11-12

Content:

CO2 measuring route to compare and contrast the levels of carbon dioxide in different parts of the city. As a part of our contribution to your hometown 11-12 year-old elementary students plant a tree to expand the lungs of our planets. On the way to the planting area they can measure and register CO2 levels.

In cities, green areas like parks and trees help absorb CO₂ from the air, while activities like driving, using energy, and factories release CO₂, adding to the city's carbon footprint and affecting the local climate.

Development goals:

Children will be aware of what places show higher levels of CO₂ and as a consequence they will apply the strategies they learnt on how to lower these levels (opening windows, renewing and purifying the air...)

Children learn about CO₂ and how it worsens our air quality and atmospheric conditions.

Children learn to work together through the whole process as CO₂ measurements involve analyzing data. In addition, each group plants a tree.

Children learn how to analyze the data registered on the app (CO₂ level, temperature, humidity and atmospheric pressure) as well as the graphs.

Planning:

As a warm-up, we show a video about what CO₂ is and how it affects the quality of the air.

CO₂ measurements throughout the planned route and the analysis of the registered data and graphs. The route will be divided in two parts, thus two groups. The route may vary according to your location. This is ours:

Part 1: classroom – school parking lot – Pinada park - bridge (cars road) – town hall – planting area. The first part takes place in between 9 and 11 am.

Part 2: planting area – town hall – bridge (cars road) – Pinada park – school parking lot – classroom- Part 2 takes place in between 12 and 2 pm.

Exposition of the results and their personal comments on the topic.

Resources:

Materials: Aranet sensors, Aranet apps, computer and beamer, Wi-Fi, planting tools.

Space: classroom, parking lot, city spots, planting areas.

Media: <https://www.youtube.com/watch?v=HK8LLWSIlm4>

Feedback:

This activity allows us to measure CO₂ levels and compare them in different places. It also gives us the opportunity to be in the nature and do our bit to help our planet and improve the quality of the air by planting trees.

Some of the difficulties that we have faced are related to Bluetooth issues.

The time scheduled planned is appropriate for obtaining enough and relevant data.