



CLIMATE PROJECT - PLANNING SHEET

Title: Sensor Pet

Author: Leonie Esters

Age: 3-10

Content:

Children will care for a scientific sensor by checking its function, recording data, and troubleshooting any issues. This activity promotes responsibility, teamwork, and problem-solving while teaching basic scientific concepts related to environmental and climate monitoring. Long-term measurements are important in climate science because they reveal changes over time, such as rising temperatures. In this activity, the SenseBox measures the concentration of carbon dioxide (CO₂). Students will learn that CO₂ levels change throughout the year - higher in winter when plants respire and lower in summer due to photosynthesis.

Development goals:

The development goals are feeling of responsibility, scientific inquiry, technical skills, and teamwork among the children. By regularly monitoring the sensor, recording its measurements, and troubleshooting any issues, the children develop observational and analytical skills while learning basic scientific concepts related to the sensor's functions. This activity should encourage curiosity, problem-solving, and understanding the importance of environmental and climate monitoring.

Planning:

In this activity a small group of children should take the role of junior scientists by caring for a scientific sensor installed on-site - the installed SenseBox sensor. They regularly (once per day) check the sensor to ensure it is operational, record its measurements, report any issues, and note down their weather observations (rain, sunny, cloudy ...). Through rotating responsibilities, children will learn to read the sensor's data, understand basic scientific principles, and develop problem-solving skills. Like caring for a pet, caring for the sensor should give them the feeling of responsibility and connection to the sensor.

Resources:

- installed SenseBox

Feedback:

- Younger children can relate to the sensor as their pet, like a pet duty.
- Older children might like to spend more time to look at the recorded data and compare the measurements to ones of other days.
- More activities can be planned on the recorded data.