CLIMATE DETECTIVES 2020 – 2021

WIND DIRECTION (ANEMOMETER)

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CENOM

RESEARCH QUESTION

What is the direction and intensity of the wind? What can cause it and how to measure it?

SUMMARY OF PROJECT

To understand the direction and intensity of the wind, some meteorological instruments are used; like the anemometer, which partly resembles a weather vane. The force of the wind propels the equipment's shells, making the shaft rotate and the more turns it takes, the greater its speed. Another device that is popularly known is the windsock.



Figure 1: monitoring the winds and their direction

MAIN RESULTS

Each team member will be able to observe and record their observations. You will have your own material for your daily observation, such as windsock and anemometer, in addition to using the EO Browser; which makes it possible to browse and compare full resolution images from all the data sources we provide. It is simple to use, it allows you to go to your area of interest, select the desired time interval and cloud coverage and inspect the resulting data in the browser. It allows you to try different views or make your own, download high resolution images and create timelapses.

The amount of information collected and observed can be included in a spreadsheet to be filled out. This application will be a very good resource. Analyze the wind in several countries and compare it with yours, see how the weather is in a given location, all of this will present information necessary to prove the wind direction and the speed of the same.

By studying the weather and climate through the EO Browser, students will see the importance of observing Earth from space in the study of changes that occur on our planet in real time. Team members will be able to check the wind direction in their homes with the windsock and anemometer. When using the EO Browser, they will notice the differences between the countries observed.

In ESA's galleries we find images of Mato Grosso, in Brazil. Everything is important, everything is a given, after the analysis, spreadsheets and records can be created with the observed records.

The resources on the Climate Detectives page and those shared by teachers on the ESERO PT page are wonderful and will be used with students.

Figure 2:

ACTIONS TO HELP LESSEN TO THE PROBLEM



Figure 3: Clean air and trees

The EO Browser online tool, https://apps.sentinel-hub.com/eo-browser/, will be used, and the platforms will be used as https://www.windy.com/-22.910/-43.210?-22.690,-42.220,7, which show the patterns of wind dispersion at every moment, using weather stations, assist in monitoring