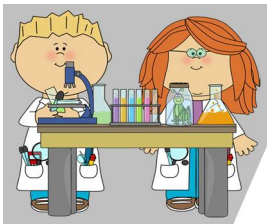


Weather Science Lab:

Record the daily temperature and weather and create a relative graph

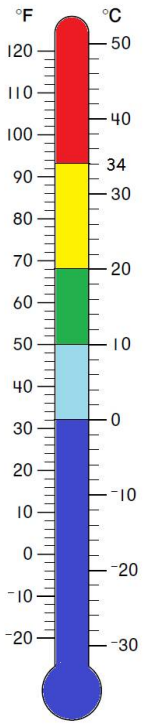
Teacher sheet

The aim of this activity is to familiarise students with **observing the weather and recording data**. More specifically, the teaching objectives are for students to:

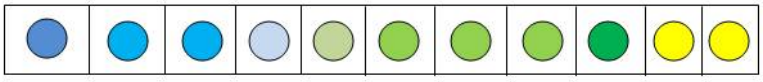
a) observe the temperature changes depending on the season
b) create their own personal calendar based on weather conditions
c) associate principles and concepts of science to everyday reality
d) use technology to mine necessary data
e) organise data
f) create a bar chart to observe overall yearly conditions
g) communicate and compare data with students in other countries

Procedure:

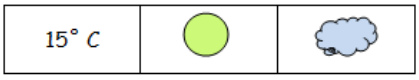
- Every Monday, at about the same time, the "meteorologist" checks the temperature on the school's weather station using the computer and writes it on the board
- Then the student checks the colour zone corresponding to the temperature on the thermometer, which has already been produced by the students during a previous activity. Please note that teachers should ensure the thermometer colour coding is depicted correctly, as shown in the picture below:



- The student then reports the results to the rest of the class and places a matching coloured sticky dot on the long strip of paper.



- At the same time the rest of the class makes a note of the information on their own working sheet.



- At the end of the month students note the colour and symbol that appeared the most at the end of their Table on their working sheets.

- At the end of the school year the class counts the number of dots of each colour and each symbol and creates a respective bar chart.

Necessary Materials/Equipment:

- Large class paper thermometer (students colour according to instructions)
- Coloured sticky dots or coloured pens/pencils
- Long strip of paper for recording coloured dots i class
- Computer with internet access

Suggestions for further elaboration:

- It would be great idea for a class to connect through Skype with a class in another country through Skype, in order to share findings and compare data. Classes can discuss questions such as:
  - Which country had colder weather?
  - Which month was the coldest/warmest in each country?
  - How do our graphs show us that the season has changed?
  - How does the weather affect one's clothing or activities?

- We can encourage our students keep their own weather diary, where they may note their daily weather observations (instead of weekly ones)

- After noting the temperature on the blackboard, students can debate whether they should wear a jacket in break time or not.

- Students can play a game of trying to predict next week's weather and see who was the closest to actual measurements.