



32nd Science Projects Workshop in the Future Classroom Lab

Brussels, 13-14 September 2019

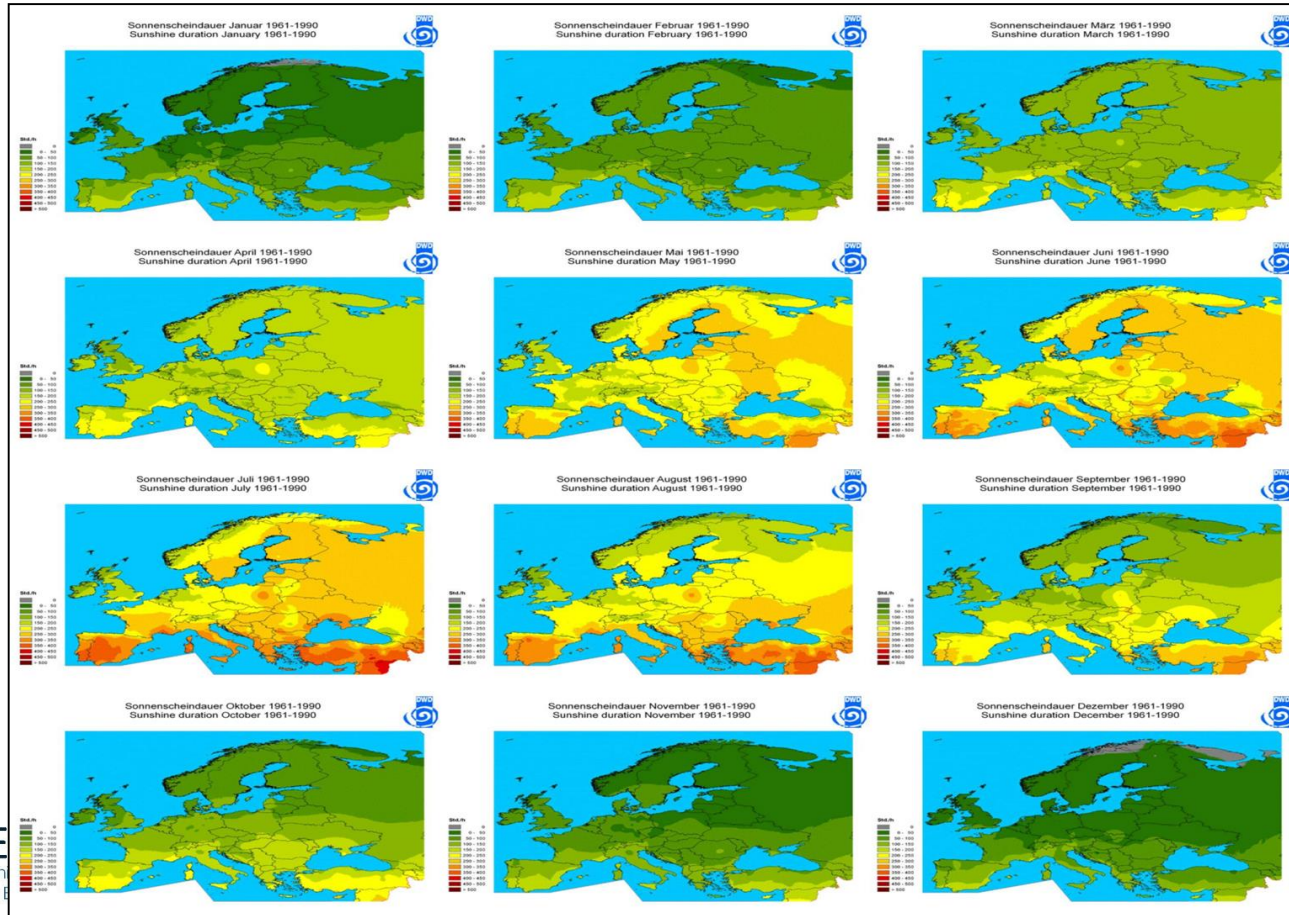
**We are growing
under the same sun**

**Begoña, Guadalupe, Giulia,
Adriana and Bàrbara**

Project for primary students



Changes in light hours in Europa a year along





- Understand the impact of sunlight on a plant's life cycle
- Study how the temperature varies in different climates and seasons
- Extract chlorophyll with chromatography and make some artistic plays with the extract



TITLE	PROCEDURE	TIME
SEEDS	<i>Planting bean seeds in different positions with or without light exposure</i>	<i>1 hour</i>
SUN AND SHADOW	<i>Locate and positionate the digital thermometers inside and outside (in full light, under a tree, close to a window, close to a radiator...)</i>	<i>1 hour</i>
PERIODICAL MEASUREMENTS	<ol style="list-style-type: none"> 1) <i>measure the growth of the plant with mobile app (Prime ruler) (when possible, the height)</i> 2) <i>register the temperatures on two entrances table and time series graphs: same position in different times, same times in different positions</i> 	<i>1 hour a week for a month</i>
DRAW	<i>Extract the chlorophyll with ethanol and draw a poster just to create a logo for the project</i>	<i>1 hour</i>
MEET AND GREET	<i>Chat with other countries and compare the results: e.g. where is the coldest school? Where is the highest range of temperature? What about the differences in plant growth with respect to light exposure?</i>	<i>2 hours in different days</i>

Planting Outside and Inside



Measuring plant length with app



Measures of temperatures Digital thermometer

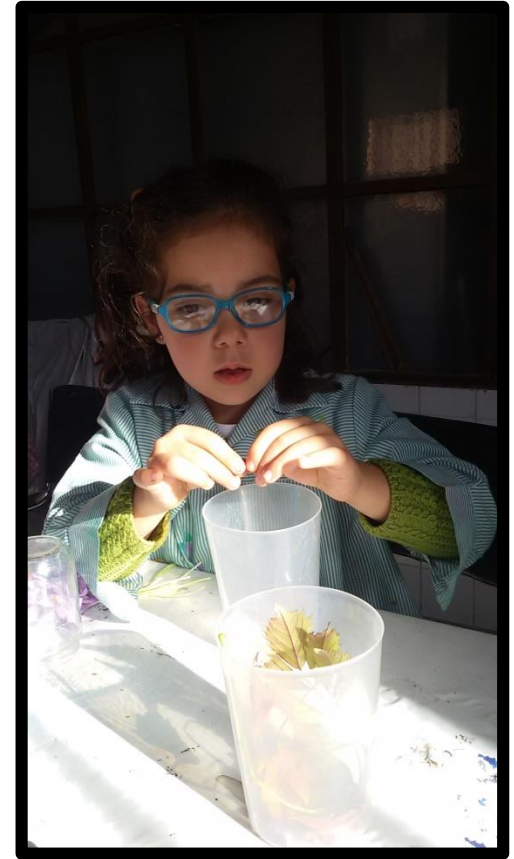
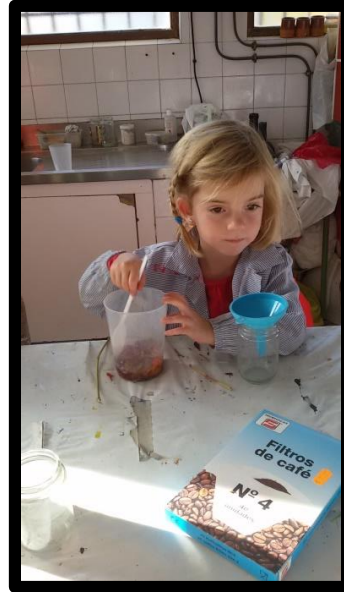


MAKING ART WITH PLANTS

CHROMATOGRAPHY

ETHANOL EXTRACT

DRAW A LOGO





*Where is the widest
range of
temperature?*

*How does the plant
exposure affects its
growth?*



AMBASSADOR

SCIENTIX

The community for science
education in Europe

Thanks!



Grazie!



Multumesc!

Gracias!

