

**SOLUTIONS INSPIRED BY NATURE  
BIOMIMICRY WORKSHOP  
February 21<sup>st</sup> 2022**

In this workshop you will learn about plants adaptations to Mediterranean climate and it's relation with biomimicry applied to building construction.

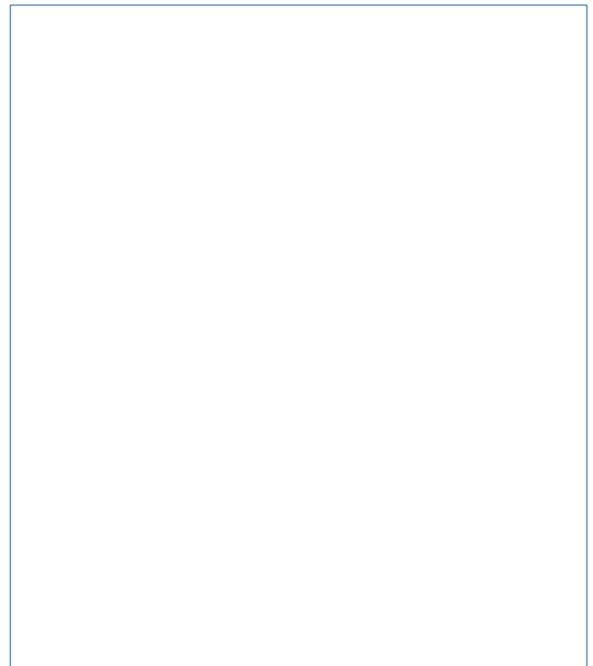
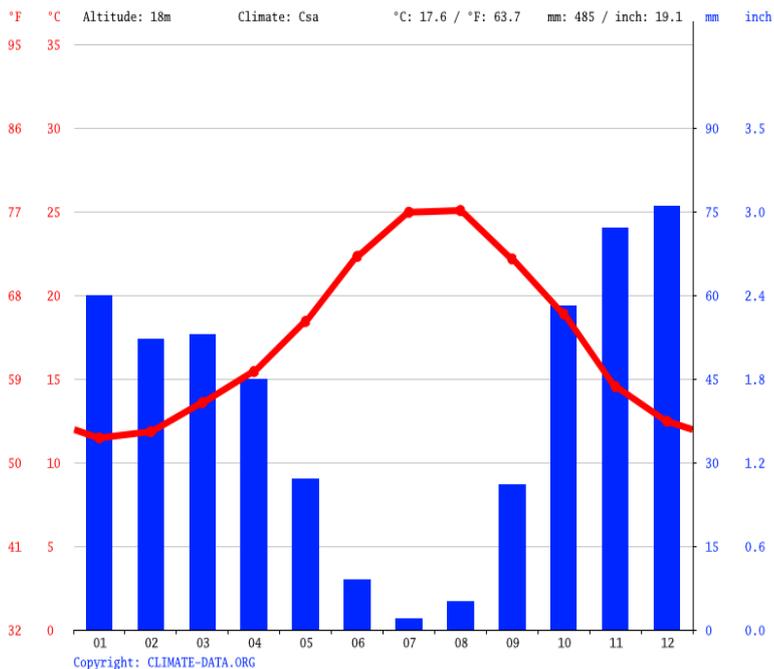
Objectives	Observe anatomic characteristics of plants adapted to Mediterranean climate.
	Deduce the function of physiological and structural adaptations of Mediterranean plants.
	Relate physiological and structural adaptations with biomimicry
Timing	1 hour
Development	Theoretical introduction to plant physiology, Mediterranean climate characteristics and types of plant adaptations to Mediterranean climate.
	Laboratory experimentation.



**Development: Theoretical introduction**

Watch and listen actively teacher's explanations about the topic, then answer the following questions.

1) Graphic interpretation: Look at the Mediterranean climate graph and write down the main characteristics of the Mediterranean climate.



2) Do you know any species of Mediterranean plants?

3) Can you relate any plant adaptation with the climate of its environment?

4) What is a stomata?

**Development: Laboratory experimentation**

**Lab experimentation report**

**Lab Material:**

- .Microscope
- .Slides
- .Sticky tape
- .Transparent nail polish
- .Leaf samples

**Procedure:**

1. Apply nail polish to the underside of the leaf
2. Let it dry and then remove the layer of lacquer
3. Mount on a slide and observe it under a microscope
4. Observe the structures



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**Results**

Presents the findings of the experiment.

Draw the structures you'll find in your samples.

Plant name: \_\_\_\_\_

Magnification: \_\_\_\_\_

Plant name: \_\_\_\_\_

Magnification: \_\_\_\_\_

Plant name: \_\_\_\_\_

Magnification: \_\_\_\_\_

**Discussion**

Interpret and explain the findings, and relate them to the previous information.

5) What kind of structures have you seen in your samples?

6) What functions do you think they will have? How can it be related to Mediterranean climate?

## **Conclusion**

Summarise and interpret the findings

7) Write down your conclusions about plant adaptations and Mediterranean climate:

8) How can we relate these plant adaptations to constructions? Can these traits be an inspiration to build constructions in the Mediterranean area? Write down some examples:

