

Subject: Biology

Topic: - Stomatal cell

Sub – Topic: Transpiration in Plants

Class: Grade 6

Duration: 15 Mins

Topic: - Stomatal Cell

Aim:-

- To Study Stomatal Cells (Stomata) in Plants.

Objectives:-

The student will:

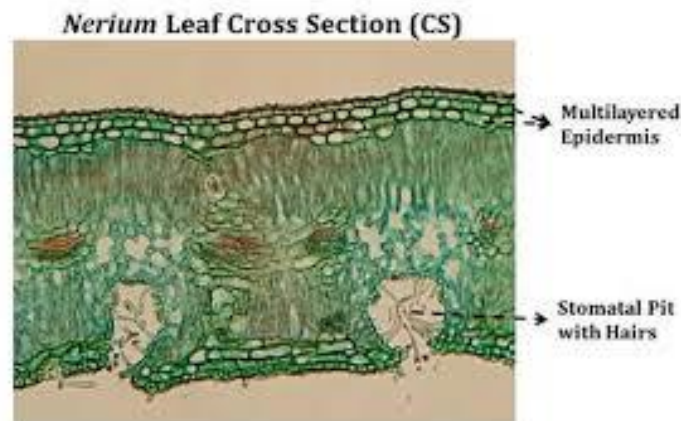
- Create leaf impressions in order to view stomata under a microscope;
- Compare number of stomata present in older specimens and newer specimens;
- Download leaf images and calculate stomatal density and
- Plot stomatal density against atmospheric carbon dioxide levels and discuss reasons for the relationship between these variables.

Materials Required:-

1. Rheo or Nerium Leaf
2. Slide, Cover slip
3. Scissor Forceps
4. Water
5. Microscope

Principle:-

In leaves stomatal cells are involved in transpiration and exchange of gases.



Procedure:-

1. First with the help of forceps separate the layer of Rheo leaf.
2. Then put the layer (membrane) into the watch glass and add water in it.
3. Then with the help of blade make small pieces of membrane.
4. With the help of forceps or brush put one piece of layer/ membrane into the slide, put cover slip on it.
5. Then observe it under the Microscope.

Observation: - Bean shaped stomatal cells are identified under microscopic condition.

Conclusion:-

Stomata are tiny pores present in epidermal surface of leaves. They also found in almost all young aerial parts of plant body. They play important role in transpiration, gaseous exchange and absorption of water & mineral soils.