**Exploration**

**Materials:**

One compound microscope with magnification up to 400x

Two microscope slides

One pair of forceps

One marker pen

Clear nail polish

One digital camera to capture microscope images

One type of leafy plant which can be found under different light intensities

One calculator

**Safety instructions:**

Chemicals in clear nail varnish.

Work in a well-ventilated space because it can cause headaches.

**Method:**

1. Find the suitable plant under five different light intensities to investigate and collect three leaves from each location.
2. Coat a layer of clear nail polish on both sides of leaf surface. Leave it to dry.
3. Carefully peel off the thin layers with clear nail polish from both sides of the leaf by using forceps.
4. Place the thin layer flatly on a piece of tape and tape it on the microscope slide.
5. Place the slide under the 400x magnification of microscope.
6. Count and record.
7. Replicate steps 2-6 twice using a different leaf from the same location.
8. Replicate steps 2-7 with leaves from the same plant from the four other different light intensity conditions.
9. Calculate for the average for each condition.

**Results Table:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Numbers of  Stomata Light Intensity | #Trial 1 | | | #Trial 2 | | | #Trial 3 | | | Average | | |
| 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| Very Weak |  |  |  |  |  |  |  |  |  |  |  |  |
| Weak |  |  |  |  |  |  |  |  |  |  |  |  |
| Moderate |  |  |  |  |  |  |  |  |  |  |  |  |
| Strong |  |  |  |  |  |  |  |  |  |  |  |  |
| Very Strong |  |  |  |  |  |  |  |  |  |  |  |  |

**Unit in numbers of stomata**