**STATION 7: CAN YOU SEE? (Mara)**

You have to answer the following questions with the help of the experiment

|  |  |
| --- | --- |
| 1. Measuring Classroom (300 lx):        1. How bright is it in the dimming room?        1. What do you have to do if it´s too bright/ dark? | Measuring: in the dark |
| 1. Is the daylight enough or should there be extra light?   (It should be 300 lx) | Measuring: daylight without extra light |
| 1. How bright is it with extra light?      1. What can you do when it´s too bright (to save Energy)? | Measuring: now with extra light |
| 1. What can you do when it´s too dark?      1. Which parts of light are important (when it´s too dark)? | Measuring: with different parts of light in your classroom (window, wall, middle and more..) |

**Part 2:**

**How do you install a lighting profile**

* sketch a floor plan of your room (worksheet) and mark your measuring points (middle of your tables)
* You have to close the shutters/blinds/etc. than turn your extra light on
* After 5 minutes you should measure the lighting with the luxmeter on your measuring points and write it down.
* You have to calculate the average of the measuring and compare it to the normal value of a classroom (300 lx)

**What do you need**

* an empty room which can be darken
* a luxmeter
* a calculator
* a floor plan
* (+ pens and rulers)

**Rating**

* You should make a sample solution.
* The group who is near to your solution gets the most points. You should rate the quality of the execution.

**You should look at:**

* You should wait when you turn on the lights. After waiting 5 minutes you can measure with the luxmeter, because the lights need their time to warm up.
* The sensor shouldn´t be darken by your school stuff or yourself. So, pay attention and look after the measurements under the table (like in the picture).
* Don´t shift the table, your measurements could change!

***Useful tips to execute the experiment:***

* *mark the table you´re using*
* *the table should be empty*
* *use tape to fix the luxmeter*
* *get down the table when you want to measure (picture 2)*
* *watchers are permitted to produce no shadow*

**Worksheet Station 7**

Group:

measuring height (table) in cm:

average of illuminance:

number of measuring points:

What to do:

Sketch the floor plan (one pattern = 1 meter). Mark your tables and Lights. Entering measuring points (in the middle of each table) and measured illuminance in the raster. Calculate the average of the measuring and write it down.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |



