Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_

**Homeostasis of the Eye**

**Introduction:**

Homeostasis is one of the most important characteristics of living things. It means that we have a constant environment inside our bodies. Things like our body temperature must always be around a certain point. All sorts of factors affect the ability of our body fluids to keep us alive; these include properties like temperature, acidity, and the amounts of nutrients and wastes. We have built in methods to maintain them at correct levels.



**Hypothesis**:
The eye maintains homeostasis with changing light input.

**Materials:**

* Paper
* Pencil

Pupil

Iris(colored)

**Procedure:**

1. Observe the subject’s eye. Record the color of the iris.
2. Observe the pupil of the eye.
3. List three characteristics of the pupil in normal light. (size, etc.)
4. Turn out the lights for three minutes and repeat step 1.
5. Turn the lights back on wait three minutes and repeat step 3.

**Results (Data):**

|  |  |  |  |
| --- | --- | --- | --- |
| Color of Iris with LIGHTS ON | 3 characteristics of pupil with LIGHTS ON | Color of Iris with LIGHTS OFF | 3 characteristics with LIGHT |
|  |  |  |  |

**Results (Questions):**

1. List the differences between the eye with the overhead lights on and the lights off.
2. Why do you think there is a change with different light levels?
3. How did this activity show homeostasis?
4. Briefly explain another experiment that could demonstrate homeostasis of the human body?