

Turn the Lights Down Low

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Successful germination process ensures that a plant is growing well and healthy, hopefully leading to a healthy crop. Light pollution is when a specific thing is being overpopulated by artificial light. Light pollution can affect the plant's germination process. Depending on the different lights a plant is exposed to can affect the growth of it. We predicted that the plant in 12-12 lighting would grow the most. Without plants our food chains would dramatically be affected and species and populations would die off. If our project is found successful the conditions a plant needs to survive will be revealed and it will impact the way we grow plants and the amount of plants correctly being grown throughout the world. To figure out if light pollution affects the germination and growth of plants we used three different light boxes, one with a very bright light for 24 hours, one with complete darkness 24 hours a day, and lastly a box with 12 hours of light and 12 hours of Darkness a day. We left the seeds in these boxes collecting data every day for 7 days and as the seeds were growing we collected data about how many square centimeters were filled in their plant containers. We also collected the height of each small container and found averages for every different light box. We found that the grass in the 24 hour darkness grew the most. The grass in the 24 hour light had the highest grass.

**Category**

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1. As a part of this research project, the student directly handled, manipulated, or interacted with (check all that apply):
  - human participants     potentially hazardous biological agents
  - vertebrate animals     microorganisms     rDNA     tissue
  
2. This abstract describes only procedures performed by me/us, reflects my/our own independent research, and represents one year's work only.
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