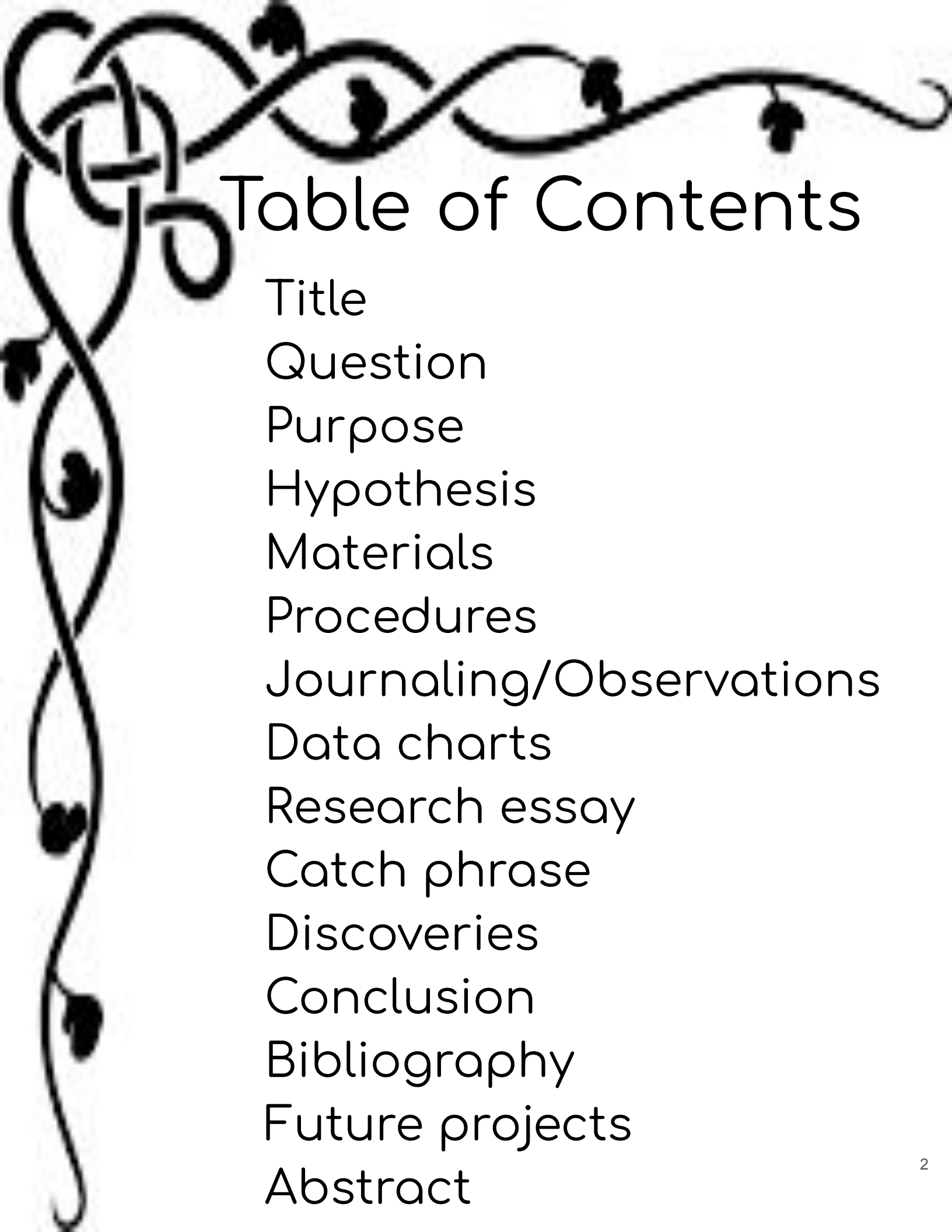




Title

Colorful  
Growing



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# Question

Which  
artificial light  
stimulates  
the best  
plant  
growth?



# Purpose

The purpose is to see which artificial light helps plants grow the best indoors.

# Hypothesis

If I compare the same types of plant under a plant light, christmas lights, and a Led lights then the plant light will do the best.

# Materials

1. Red plastic cups
2. Soil
3. Blue Christmas light
4. Led light
5. Plant light
6. Water
7. Plastic bag
8. Plastic rubber band
9. 3 boxes
10. Electricity
11. Paper and pencil
12. Ruler
13. Fan
14. Phone for pictures
15. seeds

# Procedures

A background image of several pink cosmos flowers with yellow centers, growing on green stems. The flowers are in various stages of bloom, with some fully open and others just starting to show. The background is a plain, light color.

Step 1: Put  $1 \frac{1}{2}$  cups of soil in each cup.

Step 2: Push each seed 2 inches below the surface

Step 3: Water it every other day the same amount.

Step 4: Put it in the boxes when it starts to sprout.

Step 5: Put it in a dark room/area.

Step 6: Take out to take pictures and to measure each night. Measure in inches with a ruler.

Plant Light

# Experiment data

All of the plants are doing good right now. I would say that the strongest one right now is the plant light. It is holding itself up better than the others, and looks really healthy.



Table Lamp



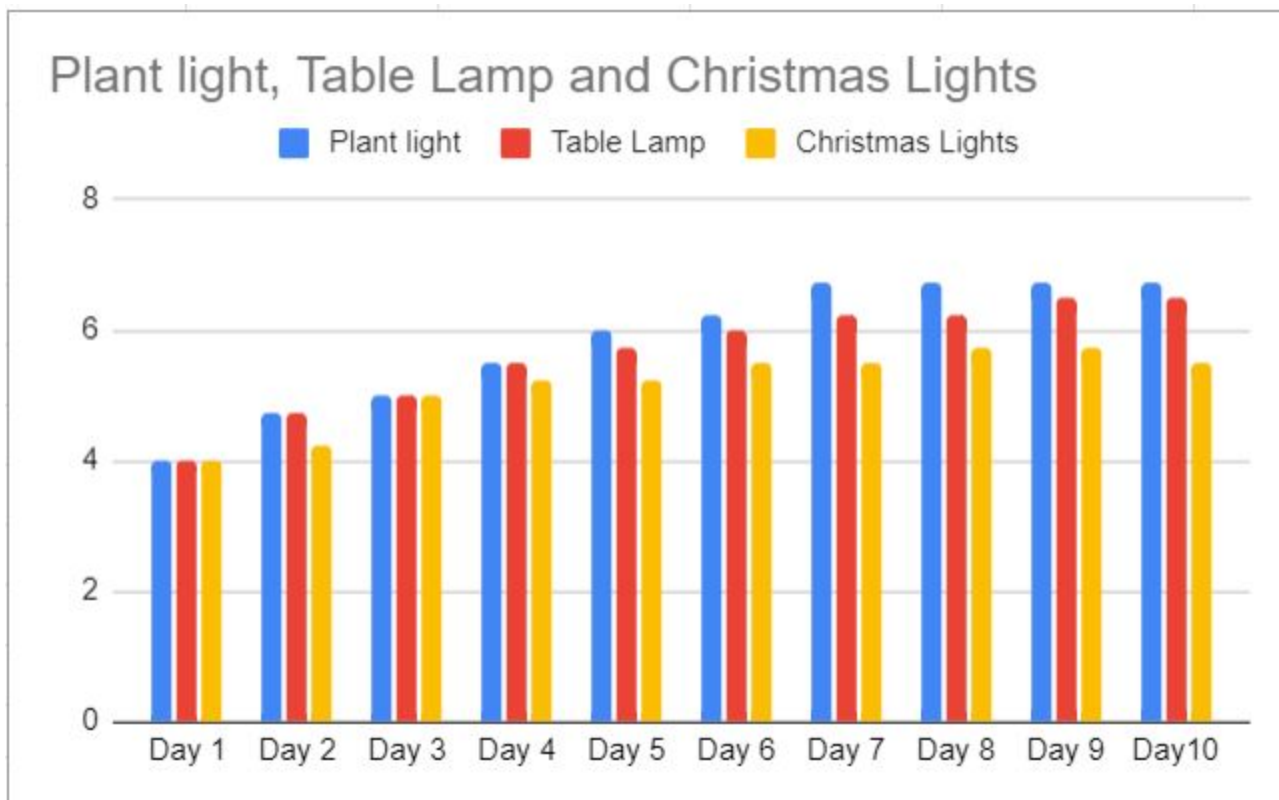
Christmas Lights





# Data Chart

	Plant light	Table Lamp	Christmas Lights
Day 1	4	4	4
Day 2	4.75	4.75	4.25
Day 3	5	5	5
Day 4	5.5	5.5	5.25
Day 5	6	5.75	5.25
Day 6	6.25	6	5.5
Day 7	6.75	6.25	5.5
Day 8	6.75	6.25	5.75
Day 9	6.75	6.5	5.75
Day10	6.75	6.5	5.5



# Science fair research paper

I was inspired to do this project because we have a big garden at home. I wanted to see what light to put in our greenhouse, to put over our plants that we are just begging to grow. I like to help my dad when he is in the garden, so I know some about plants. I thought that this would be a fun project to do because I like to grow things, and experiment with plants. This project's purpose is to see which light will help a plant grow the best, Led lights, Christmas lights, or a Plant light. The project is useful because if someone is wanting to grow some plants, they could see which light is the best one to use.

I am testing out which light will help a plant grow the best. For my project, I have 3 boxes, (one for each plant) and they each have different lights in them. One has led lights, the other has Christmas lights, then the last has a plant light. I am keeping them in a dark room, so the only light they get is the lights they are supposed to. I measure and take pictures every night and write down the measurements. Every other night, I give the plants  $\frac{1}{4}$  cup of water. I put a little bag at the bottom of the cup so if there is extra water, it will go into the bag and the roots can suck it up.

My project can help people who are wondering which light they can use to grow a plant. They could put it in a greenhouse to help the plants be more strong, and healthy. One of the lights made the plant start to die. It started to shrivel up, then it died. It is super important what kind of light they have when they are growing. The wrong light, and the plants could die. So people don't make that mistake, I did this project for them to look at. They could find the light that I used, and use it. This experiment can be very important. Even for me, I will know after this experiment which light to use when I am growing a plant. I can tell people too. They don't have to look at my project to know, I can tell them about it and tell them which light is the best to use for growing a plant.

# Conclusion

In Conclusion, my hypothesis was correct because, I said that the plant light would do the best, and be the healthiest. In the end, it was.

# Acknowledgements

My Dad

My Brother





What will I do next?



I will use the plant light in our greenhouse, and in the future when we are growing plants, we will know which light to use.



# Abstract

My project's purpose is to see which light would be best to use if you are growing a plant in a dark area, greenhouse ect. I watered it every other day  $\frac{1}{4}$  cup of water. I measured and took pictures every night. After a while, the christmas lights plant started to die. Then the table lamp plant snapped in half. It wasn't strong enough to be moved around to take pictures. In the end, the plant light was the best one. It was stronger, taller, and it had more leaves and looked more healthy than the others. So now, I know which light to use when I am planting any plants.