# The Best Baits!

## Problem

- How will the color of fishing lure affect the amount of fish you will catch?

# Variables

- Independent Variable: The color of fishing lure.
- Dependent Variable: The mount of bites and fish caught.
- Control Variables:
  - 1: The same lake
  - 2: For the same amount of time
  - 3: The same type of lure
  - 4: The same rod
  - 5: The same rig

# Hypothesis

- If you fished for largemouth bass with the same lure but different colors (red, green, and purple) what color of fishing lure would attract the most fish?
- Then I suspect they would they be attracted to red more than green or purple.
- Because they have dichromatic vision; their eyes have two different cone cells one is sensitive to red the other green, another reason is that one of their natural foods are worms and the color of the worms are red so the red imitates the worm the best.

# Materials

- 1 Fishing rod
- 1 Fishing reel
- 6lb Fishing line
- 1 Waited hook
- 1 Pair of pliers
- 1 Pencil
- 1 Notebook
- 1 phone/timer
- 1 Bag of red Yum 4 inch worms
- 1 Bag of purple Yum 4 inch worms
- 1 Bag of green Yum 4 inch worms

# Procedure

1. Drive to a lake that has largemouth bass in it
2. Tie on a weighted fishing hook to your fishing line on your rod
3. Put on one of your 4 inch Yum worms with a standard rig
4. Cast the bait out into the water
5. Write down in your notebook what time you started
6. Set a timer for 20 minutes
7. Fish for the whole twenty minutes

# Procedure Continued

8. Record the time you ended, the color, date,the amount of fish, and the amounts of bites

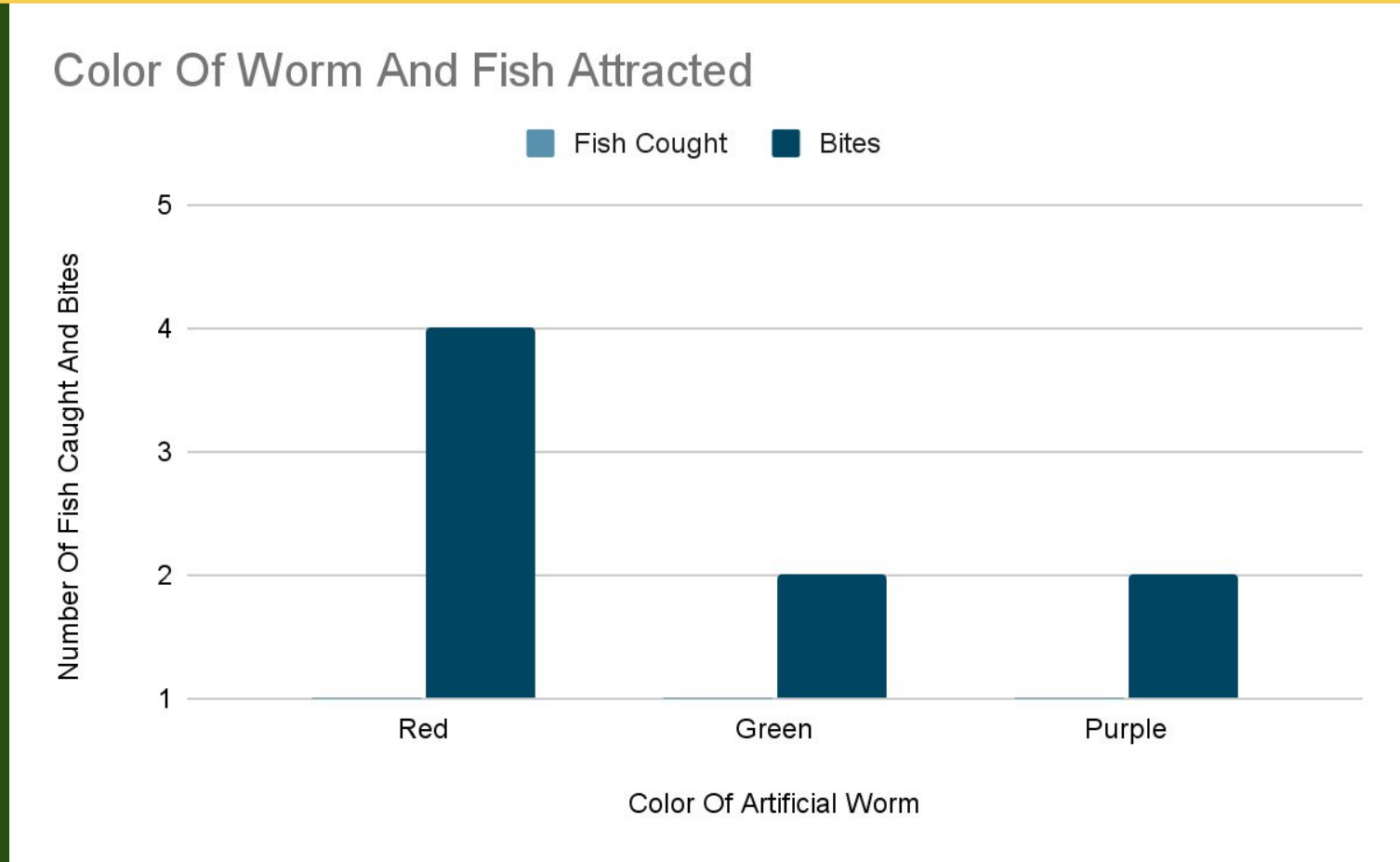
9.Repeat the same process with the next two colors

10. Repeat steps 2 more times on different days

# Data Collection Table

| Color | Day 1 Time 9-20 | Day 1 Fish Caught 9-20 | Day 1 Bites 9-20 | Day 2 Time 9-22 | Day 2 Fish Caught 9-22 | Day 2 Bites 9-22 | Day 3 Time 9-24 | Day 3 Fish caught 9-24 | Day 3 Bites 9-24 |
|---|---|---|---|---|---|---|---|---|---|
| Red | 5:56-6:16 | 0 | 2 | 6:22-6:42 | 0 | 2 | 6:42-7:02 | 0 | 0 |
| Green | 6:21-6:41 | 0 | 1 | 7:11-7:31 | 0 | 0 | 6:11-6:21 | 0 | 1 |
| Purple | 5:31-5:51 | 0 | 1 | 6:47-7:07 | 0 | 1 | 7:06-7:26 | 0 | 0 |

# Data Analysis Graph



# Data Analysis

- I used the purple worm for twenty minutes then I recorded my results of bites, fish caught and the time
- I used the red worm for twenty minutes then I recorded my results of bites, fish caught and the time
- I used the green worm for twenty minutes then I recorded my results of bites, fish caught and the time
- Then I repeated that process for two more days
- I did not catch any fish
- I only got a few bites on each color worm but the one that had the most bites two out of three days was red
- Every day I had at least one bite

# Pictures of the Experiment

# Conclusion

- My hypothesis was accepted because even though I didn't catch a fish the red worm still got the most bites.
- My hypothesis was accepted because I didn't catch any fish but I got the most bites on the red worm with a total of four bites.
- I could have gone to a different lake to fish instead of the one I did go to give me a better chance of catching a fish because the one I did go to hasnt been stocked with largemouth bass in a good amount of time.

# Conclusion

- I also could have used more colors of worms to have more range of possibilities of conclusions.
- The times that I did fish were not typically the times you would fish for largemouth bass typically you would fish in the mornings not the evenings so that could have led to a disruption in my data.
- If I did my experiment again I would add more colors of worms, fish at a different lake, fish in the mornings and fish on more days, all these would give me better and more data.
- I could’ve fished more days to give me more results.

# Application

- People should care about my experiment because if someone wanted to go fishing and wanted the best chance of catching a fish with the right colored lure they could reference back to it and see that red attracts the most fish.
- If I did this project again I would Use more color lures, fish at a different lake, fish in the mornings and fish more days for better results and data.

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