



TEMPERATURE OF LIGHT

M1-7, Physics



QUESTION

If I disperse light onto seven different cups of water, which color of light will heat the water the most?

ABSTRACT

My experiment is testing how the color of a beam of light effects how it heats water. I predicted that the color yellow would heat the water the most. I put a prism in front of a flash light to disperse each color of light onto a cup of water for two hours. After an extensive 20 trials the data revealed that all the colors heated the water two degrees, I concluded that each color of light heats water the same amount.



HYPOTHESIS

If I disperse light onto 7 cups of water, then the color yellow will heat the water the most, because yellow is the brightest color.

MATERIALS

- Materials:
- 1. Flash light
- 2. White poster paper
- 3. 7 cups of water
- 4. Tap water
- 5. Duct tape (to hold the flashlight in place)

PROCEDURE

- 1. After setting up the experiment, position the flashlight in a dark space
- 2. Position seven cups of water against the wall of the same space as the flashlight
- 3. Wrap the white poster paper up so that it forms a cylinder
- 4. Put the flashlight in the poster paper cylinder
- 5. Place a prism between the flashlight and the cups of water
- 6. Turn the flashlight on
- 7. Wait two hours
- 8. Measure the temperature of all the water cups
- 9. Record the temperatures and the color shining on each cup
- 10. Repeat

PICTURES

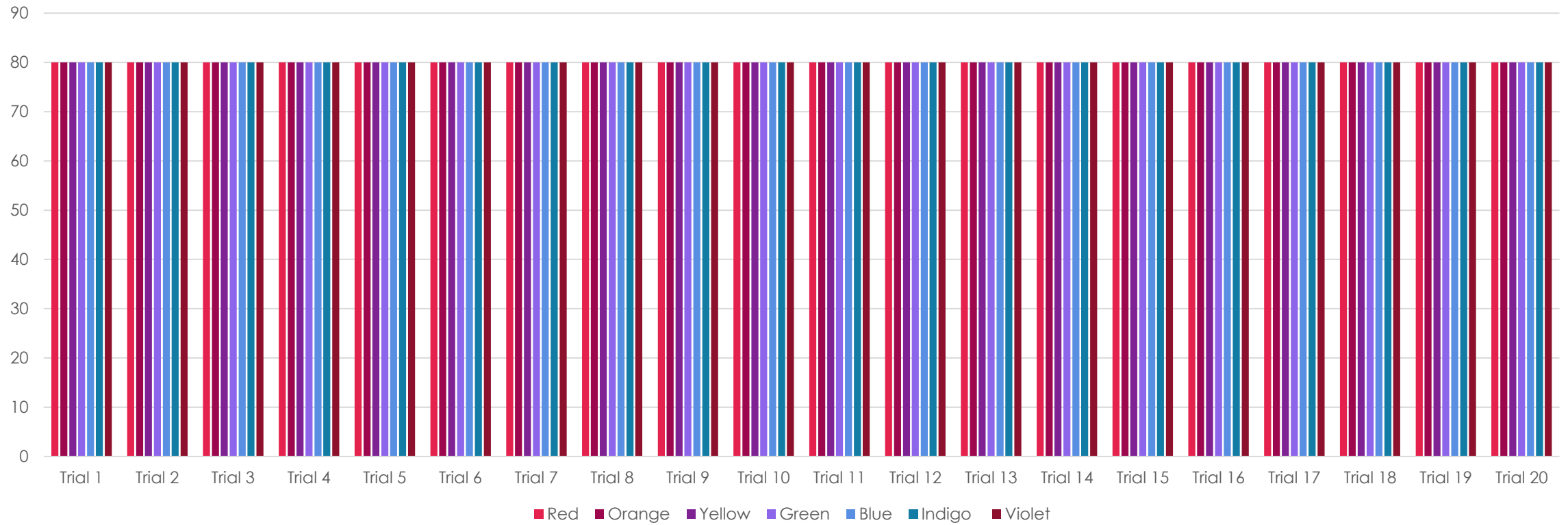


RESULTS

Color	Average Temperature
Red	80°F
Orange	80°F
Yellow	80°F
Green	80°F
Blue	80°F
Indigo	80°F
Violet	80°F

GRAPH

Data Results





CONCLUSION

If I disperse, light onto seven different cups of water, then they will all heat the water the same amount. Even though they had different wavelengths the difference is not measurable at this scale. My hypothesis was not supported by my findings because I predicted that yellow would heat the water the most, when in fact all the colors heated the water the same amount.

WORK CITED

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