

Water Colors



Objectives:

Students will predict the color of water at specified depths.

Students will observe the path of light through a medium other than air.

Students will determine the relationship between depth of water and color.

Materials

5 small test tubes, test tube holder, beaker, blue food color, water, dropper

Procedure and Results:

1. Line up the test tubes in the holder.
2. Make a prediction: Is deeper water a different blue, or does it just look darker?
3. Mix 10 drops of blue food color in 50 ml of water.
4. Add 10 **droppers** of colored water to the first tube, 8 to the second tube, 6 to the third, 4 to the fourth, and 2 to the fifth.
5. Observe the test tubes from the top.
6. Observe tubes from the side.
7. Which tube appeared to have the darkest water in it?
8. How did the tubes appear from the side?
9. Did your prediction from above match your observations? How do you account for this?
10. Does the amount of light shining on the tubes make a difference?
11. How do you account for the apparent difference in color?