Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period # \_\_\_\_\_\_\_

**Color My World Virtual Lab**

Both light and pigments give us the rainbow of colors we see. Pigments are the chemicals which reflect the light that bounces on them and gives us colors we see. But what about the color of light itself? How does the color of the light affect what we see?

Please follow the steps below to avoid confusion.



1. Go to Mr. Hewitt’s website and click on the “Color My World” link at the bottom of the page.
2. Click on the single bulb flashlight on the first screen.

You should see this:



1. The flashlight should not be on. What is the subject seeing? (what they see is in the bubbles around their head) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



1. Click on the red dot on the flashlight.
2. What is the color of the light that is directed at the subject’s eyes?

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1. What color do they perceive? (in the bubbles around their head)

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1. Drag the slider below the bulb color to the left or right. What do you notice about what is perceived?

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1. Click on the grey button and move it to the right to add filters.
2. Click and drag the slider below the filter color spectrum. What do you notice about the light that is perceived?

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1. What does the filter do?

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1. Click on the white light bulb (the one on the left) and move the slider for the filter color. What do you notice?

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1. Why do you suppose this happens?

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1. Click on the light beam on the right, move the filter slider, and make some observations about what you notice about the light, the filter, and what is perceived.

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1. What did the filter do to the light?

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Part 2

1. Click on the reset button: Then click on the RGB bulbs button:
2. No lights are on. What color is perceived? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Click on the Pause/Play button:
4. Click on the sliders and add light by sliding up all the way. Fill out the data table below with your observations:

|  |  |
| --- | --- |
| Light Color | Perceived Color |
| Just red |  |
| Just green |  |
| Just blue |  |
| Red and green |  |
| Red and blue |  |
| Green and blue |  |
| Red, green, and blue |  |

1. If you don’t move the sliders all the way up, how does it change what you perceive?

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1. Summarize what you have learned from this investigation.

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