



Diffraction Glasses - What's in a Color?

Name _____

Class Period _____

Date _____

Description: You will use diffraction grating glasses to examine different colored light bulbs and LED lights.

Materials: Red, Blue, Green Light Bulbs or Red, Blue Green LED's Diffraction Grating Glasses
White light bulb

Procedures:

When you use the diffraction grating and the colored filters, do not touch the plastic. Handle only by the cardboard frame.

1. Look at the white light bulb through the diffraction grating. What do you see? Record your results in the table below. Make a drawing of the colors and label the colors in the table on the next page.
2. Look though the diffraction grating once again, but this time look at the different colored light bulbs. Write down what you see and make a drawing of what you see.

Color of Bulb or LED	Colors contained in the light.	Drawing of the colors and label of colors.
White Bulb		
Red Bulb or LED		
Blue Bulb or LED		
Green Bulb or LED		

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Questions:

3. How does the spectrum change with the different colored bulbs?

4. Compare the spectrum from the white bulb to the spectrum of the red, green and blue bulb. When you mix red, green, and blue light, why do you get white light?

5. What do you think the diffraction grating glasses do?