Colors of Light

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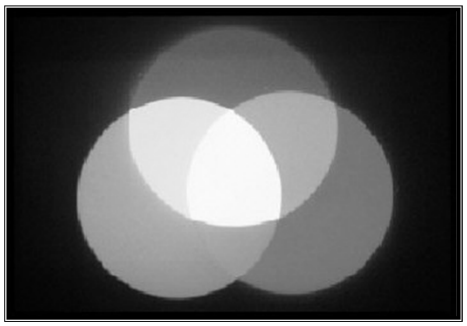
Colors of Light

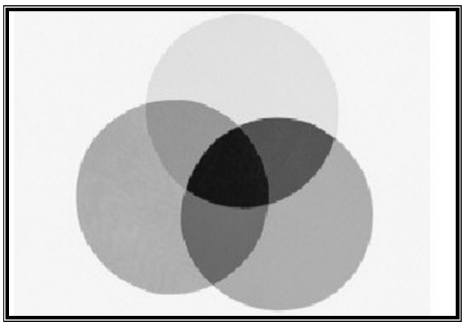
- Additive Process
- Primary Colors
  - Red
  - Blue
  - Green
- Complimentary Colors (make White)
  - Cyan (to Red)
  - Yellow (to Blue)
  - Magenta (to Green)



2

Pigment Colors

- Subtractive Process
- Primary Colors
  - Cyan (Reflects Blue and Green)
  - Yellow (Reflects Red and Green)
  - Magenta (Reflects Blue and Red)
- Complimentary Colors (make Black)
  - Red (to Cyan)
  - Blue (to Yellow)
  - Green (to Magenta)



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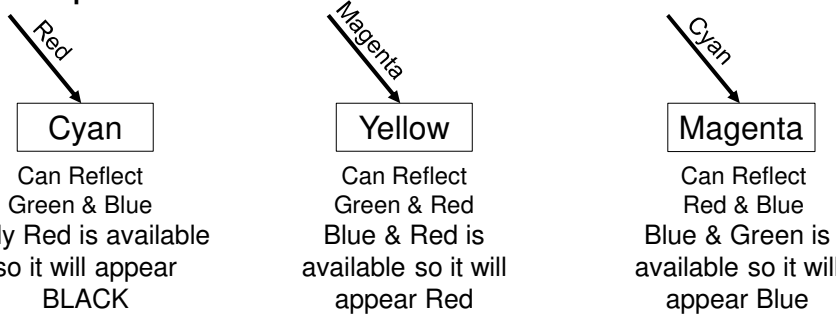
What color will it be?

- Pigments can only reflect the colors of light that make up that color, if available. If they are not available, it will appear black.
- For example:



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Color Examples

- What color is a yellow posted-note absorbing from white light?
  - Answer: Blue
- What color would you have to add to cyan paint to make black paint?
  - Answer: Red
- What color would a magenta tie appear if you shine yellow light on it?
  - Answer: Red
- What color would a cyan color shirt appear when you shine red light on it?
  - Answer: Black

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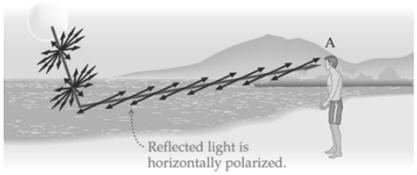
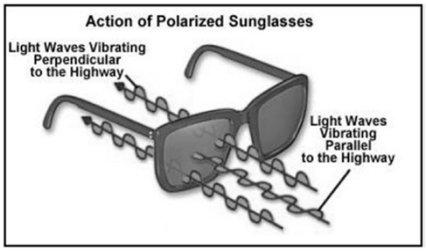
Polarization

- A light can be linearly polarized one of three ways.
  - Light is polarized through transmission, reflection and scattering.
- All three methods of polarization cause the confining of wave movement to one plane along the line of propagation.
- Sunglasses are effective due to the concepts of polarization.
- Only a property of transverse waves.





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