

Review for Test 7 Light and Color

Be able to **define, describe, discuss,** and **apply** the following terms:

Electromagnetic Spectrum

Frequency

Wavelength

Energy

Speed in a vacuum

AM,FM,VHF,UHF

ROYGBV

Radio wave

Microwave

IR

Visible light

UV

X-ray

Cosmic

Wave behavior

Particle behavior

Dual Nature

Reflection

Refraction

Diffraction

Interference

Polarization

Photoelectric effect

Photon

Planck's Constant

Emission spectra

Absorption spectra

Electron movement between energy levels

Primary Colors of light

Secondary Colors of light

Complimentary Colors

Primary Colors of Pigments

Secondary Colors of Pigments

Color Addition (a blue and green light shine on a white sheet it looks _____)

Color Subtraction (magenta light on a green shirt will cause the shirt to look _____, mix yellow paint with magenta paint and you will get _____)

Transparent

Translucent

Opaque

Why is . . .the sky blue?

water greenish blue?

the sun yellow?

a sunset red?

What would the sky and sun look like if . . .the atmosphere were thicker? Consisted of larger molecules? No atmosphere?

Why do some frequencies of EM radiation cause cancer while others do not?

Be able to solve problems using

$$V = f\lambda$$

$$E = hf$$

As well as having a comprehensive knowledge of the above topics, you should also review the information in sections 14-1, 14-4, 15-1, 16-1, and 16-2 of your text.