Note-Taking Guide - Wave Interactions - Part 2

Pigments -

Primary pigments -

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primary pigments - ______________________ pigments

________________, ________________, ________________

(*red*)  (*blue*)

Magenta absorbs the __________ part of the spectrum leaving the red and blue parts to hit your eyes. Your eyes combine the red and blue light and see ____________.

What color light would a cyan pigment absorb? ___________________

Yellow pigments absorb ______________________.

A pigment absorbs its ________________ (located ________________ on the triangle).
What color is seen when white light shines on a red pigment?

\[
\begin{array}{ccc}
\text{red} & \text{R} & \text{G} & \text{B} \\
\end{array}
\]

What color is seen when red light shines on red pigment?

\[
\begin{array}{ccc}
\text{red} & \text{R} & \text{G} & \text{B} \\
\end{array}
\]

What if green light shines on red pigment?

\[
\begin{array}{ccc}
\text{red} & \text{R} & \text{G} & \text{B} \\
\end{array}
\]

What color is seen when white light shines on a mixture of blue and yellow pigments?

\[
\begin{array}{ccc}
\text{blue} & \text{R} & \text{G} & \text{B} \\
\text{yellow} & & & \\
\end{array}
\]

What color is seen when white light shines on a mixture of cyan and yellow pigments?

\[
\begin{array}{ccc}
\text{cyan} & \text{R} & \text{G} & \text{B} \\
\text{yellow} & & & \\
\end{array}
\]
Problem Set #2:

**Why is the sky blue?**
When light from the sun hits molecules in the _______________, the molecules absorb certain _________________ of light, depending on the ___________ of the molecules. The molecules vibrate at the same frequency and give off the same color of light in all _________________ This is called ______________.__

In our atmosphere, small _______________ and _______________ molecules are most abundant, and these scatter _______________ and _______________ light, which is the primary _____________ part of the spectrum.

**Challenge - Why is the sky on the moon always black and what color would the sun appear from the moon?**

**Why does the sun look redder at sunset?**

**What causes the different colors in the sky at sunset?**