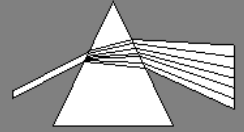


Color 6 - Colored Objects



Colored Objects

A yellow bag looks yellow under normal white light, but under other conditions it may look red, green or even black. The color an object appears depends upon the color of the light illuminating it. This worksheet explores how colors appear under normal white light.

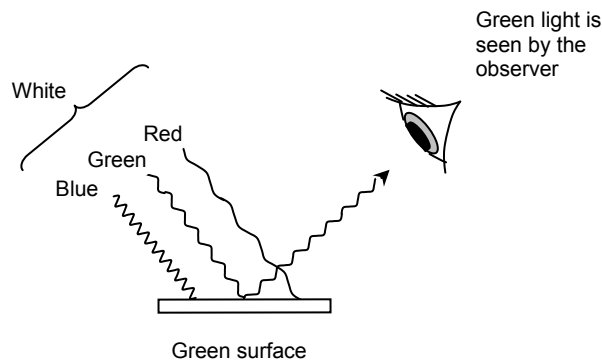
Task 1

We can consider white light to be made up of the three primary colors, red, green and blue. If white light is shining on a yellow bag:

- Which two primary colors must be bouncing off the bag into our eyes?
- Which primary color is being absorbed?

Why Do Objects Appear The Color They Do?

Diagram 1



Task 2

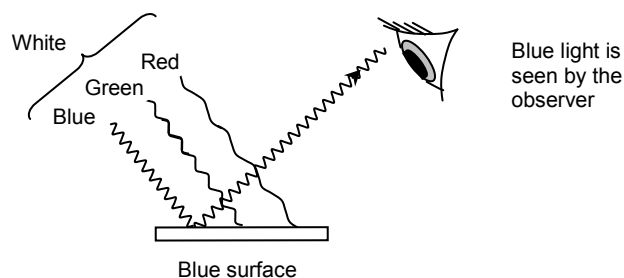
Complete the sentences below by filling in the gaps:

In diagram 1, red, green and _____ light (making up white light) are incident upon the object. The object has a green surface, so it reflects the _____ component, but absorbs the _____ and _____ components. The observer sees the object as the color _____.

Task 3

Use the diagram below to help explain why a blue surface appears blue in white light.

Diagram 2

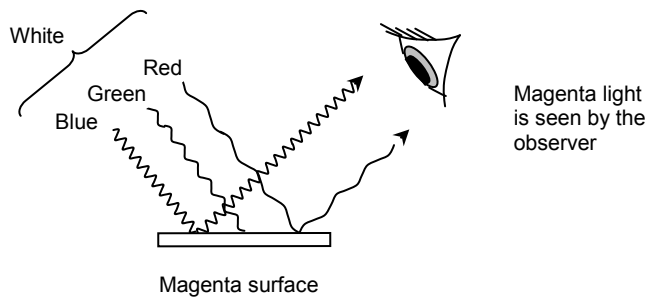


Colored Objects (*continued*)

Task 4

Complete the sentences describing how a magenta object looks magenta under white light

Diagram 3

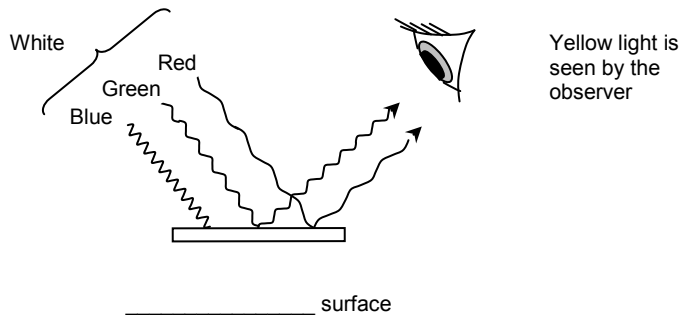


In diagram 3, white light (made up of _____, _____ and _____ components) is incident upon the object. The object has a _____ surface, so it reflects the _____ and _____ components, but absorbs the _____ component. The observer sees the color _____.

Task 5

Use the diagram below to explain why a yellow surface appears yellow in white light.

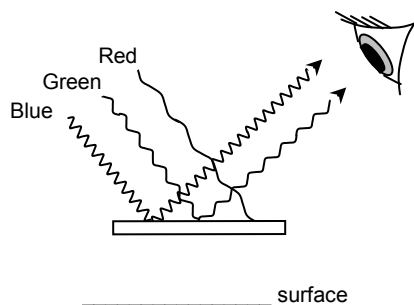
Diagram 4



Task 6

Suggest what color the surfaces below are.

a.



b.

