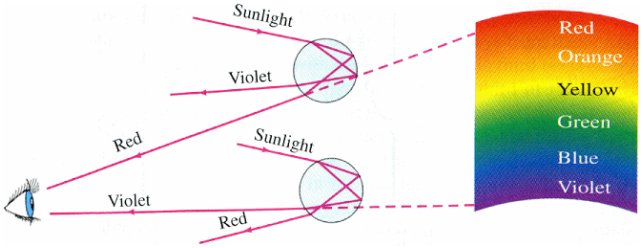
EXAMEN : Baccalauréat général - Série S-SVT ou S-SI	Session 2013
ÉPREUVE : Evaluation spécifique de Langue en section européenne	
PHYSIQUE-CHIMIE en langue ANGLAISE	
Thème : « Ondes et matières »	**Sujet n° 5**

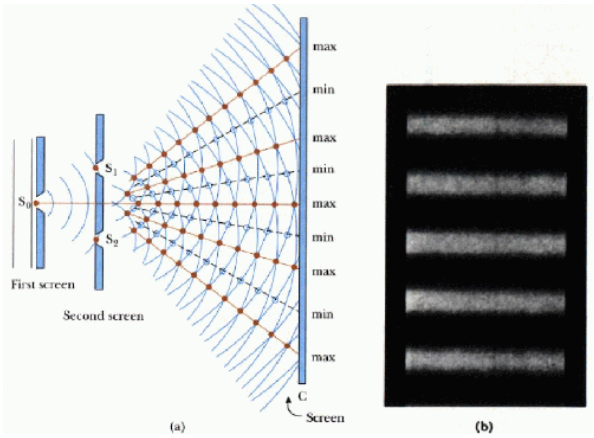
Properties of Light

Light is all around us. Rainbows are natural phenomena that exemplify all of the following properties of light. They use refraction, dispersion, and internal reflection to produce their amazing colours.



Diffraction is yet another property of light. While it is hard to give an everyday example of this, the closest would be when there is a light source shielded by a door such that only a limited amount of light can get through the opening.

Interference is another property of light. It is not all that usual for us to encounter light interference in our everyday lives. One situation that is illustrative is where there is oil or gasoline floating on the surface of water. Sometimes, you will see a brilliant pattern of colors given off by the oil or gas, even when the gas or oil is subjected to white light. One experiment used to demonstrate how light signals can interfere with one another is called “Young’s double slit experiment” after the physicist who used it for demonstrating the interference phenomenon.



http://psi.phys.wits.ac.za/

So, what you “see” as you look out over your favorite landscape is a combination of light being reflected, refracted, dispersed, internally reflected, and diffracted. Your brain interprets all the signals it receives from your eyes and makes a “picture” that we interpret as “seeing” that landscape.

http://www.physicsplanet.com/articles/properties-of-light

Questions :

1.a. Present and comment the document.

1.b. Do not forget to focus on the light properties illustrated in the document.

2. Is there another model describing the nature of light?