Light and color essay examples

Environment, Disaster

Blackbody radiation is an example of electromagnetic radiation which is emitted by opaque or black body. In this case, the environment of the body is in the thermodynamic equilibrium with the radiation. The radiation has an intensity which is proportional to the heat of the body. This is best illustrated using Hertzsprung-Russell diagrams. They describe the chromacity of the blackbody radiation. The heat is emitted through a hole on the surface of the body. The productions of colors which are pigmentary in nature are produced by differential absorption of wavelengths which are visible. This is undertaken by pigment molecules. On the other hand, the structural colors of living things come about through the interactions of the light with the bodies of the living organisms.

An interaction of matter and energy produces light. Light is made up of gases that glow at different temperatures. This can be illustrated by the different colors that are present in a flame. These different colors show the interaction of gases with matter to glow. Matter and energy interact. The interaction gives off energy. The energy that is given off by matter brings upon a spectrum. The spectrum is the different colors of light when I glow. It is possible to determine the chemical composition of fluid r gas. This is possible through the process of measuring the radiant energy that has been absorbed or absorbed by an object. The wavelengths of the electromagnetic spectrum enable excitation of the electrons by using an external source. The study of spectroscopy also involves the components of particles that have been sorted; this way, it will be possible to understand the composition of the object.

One important feature of colors is their ability to interfere with each other.

Light can interfereconstructively or destructively. When the amplitudes of the wavelengths of a given m light coincide, then that is additive. Additive colors are the colors that are directly produced from a source. These colors are used to create and generate other colors. The primary colors that produce other colors are red, green and blue. The gold beetle is one class of insects that has made use of this feature. The sky appears to be light blue because the air scatters the blue color from the rays of the sun more than the other colors. This is the reason the sun looks orange and red when it is looked directly at the sun during midday.

The Tyndall effect is one of the effects of the nature and coloration that comes with. It has been found out that when a fluid nears its critical temperature and pressure, there are small fluctuations that are responsible for the blue coloration. This is called critical opalescence. This is how the opalescent squid’s color operates.

Light has been described as being dual in nature. It has a wave and particle characteristics. Light has been portrayed to have wave features using the photoelectric effect. This experiment was also used to show the particle effect of light. In this regard, there is the aspect of blackbody radiation which is the feature where a body absorbs all radiation and re-radiates it; this will be re-radiated basing on the radiatingsystem in this object alone. In the coloration mechanism, the amount of radiation in a given surface should be proportional to the modes that are found on that surface of radiation. Physicists have accepted that light has dual properties. The new definition of light is that it is a collection of multiple photons which are propagated through the medium of space as electromagnetic waves. This definition

shows that light has both particles, photons, and waves, electromagnetic waves. Photons are what enable our site. The human eye encounters zillions and photons everyday. These photons are what makesthe particulate nature of light.

References

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