

Weekly Digest

Out for Summer!

August 3rd, 2020

Chemistry ~~in the Kitchen~~ of Color!

What exactly is color? While many of us think of objects *being* their color (plants are green, cherries are red, etc), color is actually how our eyes perceive certain light (similar to how our taste buds perceive certain molecules as specific tastes). Light can be described as waves of energy. These waves come in a whole variety of energy levels from high to low; & these energy levels correspond to colors in the rainbow. We perceive the highest energy level as violet & the lowest as red; & white is made up of *all* energy levels. Let's do a little experiment: shine a regular lamp on a red fruit. How do you see that red? The white light from the lamp is hitting the fruit & the fruit is reflecting that red low energy light to your eye. What happens to the orange, yellow, green, blue, & violet light coming from the lamp? It's being absorbed by the fruit! What determines what color light the object absorbs & reflects? The *molecules* that make up the object! More specifically, [the type of chemical bonds and the arrangement of the electrons in the molecules!](#) If you want a more visual explanation of light & color, check out [this video from TED-Ed](#). Color affects every area of life, like [art, cooking, physics, biology, fashion, technology, neuroscience, philosophy, & more!](#)

Logical Fallacy of the Week

Slippery Slope

If I share my brownie recipe, everyone will make my brownies themselves & I will have no one to bake brownies for.

"[This fallacy] attempts to discredit a proposition by arguing that its acceptance will undoubtedly lead to a sequence of events, one or more of which are undesirable. Though it may be the case that the sequence of events may happen, each transition occurring with some probability, this type of argument assumes that all transitions are inevitable, [but provides] no evidence in support of that."

Where have you seen this fallacy used?

An Illustrated Book of Bad Arguments, Ali Almosawi, p38,
bookofbadarguments.com

Check this out!

What is the color black? Every other color (except white) occurs through the reflection & absorption of certain light (we see the color blue when the item reflects blue light & absorbs all other light). But true black (which is incredibly rare) is the absorption of *all* light. Most things we see in life reflect some light (that's how we see them). But scientists have found that some fishes absorb up to 99.956% of the light that hits them. Why? Check out more in this [article from Wired](#) to learn more about these awesome fish.

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