

Weekly Digest

Out for Summer!

June 22, 2020

Chemistry in the Kitchen: Flavor

We've discussed how chemistry makes our food. But why bother with all this chemistry just to eat? Two reasons: flavor & bacteria! We'll look at the first one this week. The main component of flavor is taste, which you perceive through taste buds. How do they work? You guessed it! Chemistry! Certain chemicals in food (like sugars, acids, salts, & according to some research, fat) react with receptors in our taste buds. These reactions trigger chain reactions along neural pathways to our brain, which then interprets that chemical reaction as a specific taste. Like playing different piano keys to create major & minor chords, triggering taste bud receptors in different quantities create the flavors that we know & love. This is how we can use chemistry to create artificial flavors (like meat, fruit, or vanilla); it's all based on the chemicals' reaction with receptors in your mouth! In addition to taste, flavor is also comprised of smell, temperature, & texture. As you eat this week, pay attention to these 4 components of flavor. What makes something yummy?

SOURCE: [Allman-Farinelli, Margaret, Ingrid Appelqvist, and Russell Keast, "How do our Tastebuds Work?" Australian Academy of Sciences, Science.org.au](#)

Check this Out!

This last Friday was Juneteenth! To learn more about the holiday, check out this [National Geographic article](#), which explores the history and celebrations of this significant day.

Computer science, biology, ecology, and physics? Scientists travel from Colorado to the forests of South Carolina to study the phenomenon of synchronized bioluminescence from fireflies. [Check out this National Geographic article](#) to read about their work and the stunning beauty of synchronized fireflies.

Culture

During COVID-19

Bruce Lee is a Hollywood icon & an incredibly influential martial-artist. Famous for his films in the 1960's & 70's, Lee is credited with starting to open doors in Hollywood for Asian actors. In [this article from ESPN](#), eight Asian and Asian American artists capture his essence in their art.

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