

Weekly Digest

During the coronavirus shutdown

May 18th, 2020

Did you know...

The Chinese giant salamander can grow up to 6ft in length & is the largest amphibian on the planet. It's closely related to the hellbender, which is North America's largest salamander.

Learn more at

[National Geographic](#)

Chemistry in the Kitchen: Fat

Ever wondered why fats like butter & coconut oil are solid at room temperature, but fats like olive & sesame oils are liquid at room temp? It all has to do with molecular geometry. Fat is made of a variety of fatty acids, which all have a carboxyl group with a long carbon-hydrogen chain. The type of bonds in this chain will control whether the fat is solid or liquid at room temp. If the carbons in the chains are only bonded by single bonds, the chains can rotate freely, adjust to each other, & lay compactly. This compactness allows the chains to hold onto each other through intermolecular forces. So, heat must be applied to get the molecules to move apart (liquify). Ex: You have to heat butter to melt it. If the carbons in the chain are double bonded (cis orientation), they are locked into a position & cannot lay compactly. As a result, they hold onto each other less strongly & become liquid at a lower temp. The only exception to this is trans fats, which have been forced to have double bonds in a *trans* orientation that allows them to lay compactly (thus margarine is solid at room temp). **Try your hand at these [flavored butter recipes](#) this week!**

→ Fun fact: When two carbon atoms in a carbon chain are double bonded to each other, they can only bond to one hydrogen. When they are single-bonded, they can bond to two hydrogens. Saturated fat has only single bonds in its chain because it is *saturated* with hydrogen.

SOURCES: Brunning, Andy. "A Guide to the Different Types of Fat." *Compound Interest*. 25 Aug, 2015. [CompoundChem.com](#)
Ophardt, Charles E. "Fatty Acids." *Virtual Chembook*. Elmhurst College. 2003. [chemistry.elmhurst.edu](#)

Check this Out!

While they're not as ancient as Stonehenge, there are several "**henges**" in the United States. Bunny Henge, anyone? Check them out at [AtlasObscura.com](#)

Botanists in Europe have been **labeling "weeds" growing out of sidewalks** with chalk to raise awareness around the diversity of plants in urban environments. What "weeds" can you label in your yard? Learn more at [TheGuardian.com](#)

Explore **the world's largest cave**, located in Vietnam, with vivid detail and entertaining facts and soundscape. Check it out at: [NationalGeographic.com](#)

Taking care...

Did you know that journaling doesn't have to take the classic "dear diary" format? In this [Kaiser Permanente article](#), they suggest several different formats, like a Dream journal, Food journal, Fitness journal, Gratitude journal, Sketch journal, Day's events journal, or even a journal of To-do list(s). [Check out the Kaiser article](#) for more

information and to learn the benefits of journaling

Culture during COVID-19

Watch James Earl Jones play King Lear in this 1974 production. That's right: you can now hear the voice of Darth Vader speak in Shakespearean verse. Visit [AllArts.org](#) to watch!

Logical Fallacy of the Week

Appeal to Ignorance

Butter is delicious & baking powder is not. I have no reason to think that adding more butter & removing baking powder from this brownie recipe won't make super delicious brownies, so it must be a good idea.

"[This fallacy] assumes a proposition to be true simply because there is no evidence proving that it is not [but] the burden-of-proof always lies with the person making a claim...A specific form of [this] is the argument from personal incredulity, where a person's inability to imagine something leads to a belief that the argument being presented is false."

An Illustrated Book of Bad Arguments, Ali Almosawi, p26, [bookofbadarguments.com](#)

Craft Corner

Do you know how to sew or wish you had better sewing skills? Ever wanted to patch a favorite jacket or decorate a pillow or shirt with some nifty stitches?

Find yourself a needle and thread and visit this how-to guide for hand sewing at [TheSpruceCrafts.com](#)

Have old fabric, rags, or clothes? Try your hand at making [fabric "yo-yo's."](#) You can use these cute little poofs to decorate doilies, quilts, ornaments, and more!

Happy Pic Of the Week



Learn about glass frogs from the [Smithsonian Magazine](#)

Photo: Andrea Kay, 2016. Visit [treehugger.com](#) for more info

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