

# Weekly Digest

During the coronavirus shutdown

March 30th, 2020

Did you know...

When popcorn pops, a superheated liquid foam of starch and steam flows out of the burst kernel. Learn more in this [KQED video](#).

And watch popcorn pop in ultra slow-motion here: [youtu.be/FSZd33awaQk](https://youtu.be/FSZd33awaQk)

## Chemistry in the Kitchen: Quick-Rise Bread

Quick-rise breads use baking soda or powder to rise. You know the classic volcano science project that combines vinegar & baking soda for "explosive" results? The same type of chemistry happens when you make scones, pancakes, cookies, banana bread, etc!  $\text{NaHCO}_3$  (baking soda) is a base & reacts immediately with acids (such as buttermilk or cream of tartar) to make carbon dioxide gas, which is trapped by the dough, making it fluffy! But, since quick-breads are not kneaded, they do not have long gluten chains (see last week); so they deflate if not cooked *immediately*. Try your acid/base chemistry skills with a recipe: [\(1\) Everyday Pancakes](#) [\(2\) Snickerdoodle Cookies](#)

**Note: baking powder is made of baking soda (base), cream of tartar (acid), & starch (neutral). When moistened, the acid and base react.**

## Check this Out!

Virtually explore five different breathtaking National Parks with the help of Google:

[ArtsAndCulture.WithGoogle.com](https://www.artsandculture.withgoogle.com)

Senior citizens, who are higher risk for COVID-19, have been directed to stay indoors. Separated from loved ones & concerned for their health, senior communities are asking for letters! Learn more and send a letter here:

[www.lettersforseniors.com](http://www.lettersforseniors.com)

A virtual scavenger hunt of the Computer History Museum? Check it out here: [computerhistory.org](http://computerhistory.org)

Logical Fallacy of the Week

Argument from Consequences

**If I stop eating cake, I will not have my favorite food & that will make me sad; therefore cake is not unhealthy.**

*"Just because a proposition leads to some unfavorable result does not mean that it is false. Similarly, just because a proposition has good consequences does not all of a sudden make it true."*

An Illustrated Book of Bad Arguments, Ali Almosawi, p10

[BookOfBadArguments.com](https://www.bookofbadarguments.com)

## Craft Corner

**Beautiful and easy doodles!** "The Zentangle Method is an easy-to-learn, relaxing, & fun way to create beautiful images by drawing structured patterns [using] dots, lines, simple curves, S-curves and orbs." Zentangle, [Zentangle.com](https://www.zentangle.com)

**Make Silly Putty at Home!** Take 1.5 tablespoons of dish soap and mix it with 2 tablespoons of cornstarch. Now you have something to fidget with when you get stressed!

Bonus Question: What's chemically happening to make the silly putty?

Happy Pic  
Of the Week



Photo by: Edward Kopeschny, 2015

[More pics here!](#)

## Taking care...

Kaiser Permanente has created a website dedicated to wellness resources, and it is available to everyone. Check out topics like Managing Stress, Sleeping Better, or Self-Compassion, which includes a lovely article "for the skeptics" among us. Learn more at [kp.org](https://www.kp.org)

## Culture during COVID-19

Sir Patrick Stewart (from Star Trek & X-Men) reads one Shakespeare Sonnet a day on his instagram: [@sirpatstew](https://www.instagram.com/sirpatstew)



**49ERS STEM**  
LEADERSHIP INSTITUTE



[www.49ersSLI.com](http://www.49ersSLI.com)