Acids and Bases from the Comfort of your Kitchen

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#chemathome
What is Bravo?

- Los Angeles Unified School District
- Public School with no entrance requirements
- The Good, The Bad, and The Ugly
- Boyle Heights (Highest percentage of COVID-19 cases in Los Angeles)
- USC Keck School of Medicine and Los Angeles County Coroner are on the same block
- Not a Gifted Magnet!!!!!!!!
- Magnets were set up for integration
- 1990 41 Buses Daily (for 1000 students)
- 2019 1875 Students (no new facilities, you do the math)
- 2019 9 Buses Daily (Not as integrated as we used to be)
March 13, 2020

- 8:30 AM they announced that schools would close.
- What do you grab?
- We anticipated this
- Tripod and video camera
- Science Olympiad Lab Kit
- The “Tool Boxes”
- All my binders
Mason Jars

- Large Volume
- Can be heated (indirectly)
- Cheap ($11 per dozen locally)
- Readily Available
- Pasta Sauce
What do the students have at home?

- Kitchen equipment
- Heat source
- Some glassware (kitchen glasses, Mason jars)
- Stirring Devices (big wooden spoon, large soup spoon)
- Parent supervision recommended! (Yeah, I know)
Kitchen Gear

- Blender
- Strainer
- Mason Jars
- Measuring Cup
- Stirring Device
Household Chemicals

From the Kitchen:

Vinegar
Lemon Juice
Baking Soda
Clear soda pop (Lemon Lime or similar flavor but not Cola)

Cleaning Products:

Laundry Powder
Ammonia
Dishwasher powder
Washing Soda
Bleach
CLR Style Cleaner
Drain Opener

From the Bathroom:

Hand Sanitizer
Antacid Tablets
Rubbing Alcohol
What is the lab?

- Cut some Red Cabbage and blend in a lot of water
- Split the solution between some clear “Beakers”
- Mix in an ounce or two of a household product and note the color
- Repeat with other products
Demonstration vs. Lab

- Demos are nice and probably safer
- I don't want a surgeon who only learned by computer simulation
Next Steps

- pH Lab
- Universal Indicator Lab
- I use Red Cabbage Juice as a titration indicator
The single best thing I have done in my career is develop and work with a team (AKA Professional Learning Community). That is what you are doing right now!

**SCIENCE:** one MOLE of a good time

CHEMISTRY IS FUN!
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