



## **Science Experiments to Continue your Love of Science over Summer Break!**

### **Chemistry:**

1. Chemistry of Baking-- What makes the best chocolate chip cookies?  
<http://www.pleasanton.k12.ca.us/fhsweb/hansen/chemlab/cookiechocolatechip.pdf>
2. pH tests with Red Cabbage Juice:  
<https://web.stanford.edu/~ajspakow/downloads/outreach/ph-student-9-30-09.pdf>
3. Density Column: <https://sciencebob.com/a-density-experiment-you-can-drink/> or  
<https://www.stevespanglerscience.com/lab/experiments/seven-layer-density-column/>
4. Make your own rock candy: <https://sciencebob.com/make-your-own-rock-candy/>
5. Homemade "Lava Lamp": <https://sciencebob.com/blobs-in-a-bottle-2/>
6. Homemade Slime: [https://sciencebob.com/make\\_slime\\_with\\_borax/](https://sciencebob.com/make_slime_with_borax/)
7. Color Changing Liquid: <https://sciencebob.com/rapid-color-changing-chemistry/>
8. Ink Chromatography:  
[https://www.msichicago.org/fileadmin/assets/educators/learning\\_labs/documents/ink\\_chromatography.pdf](https://www.msichicago.org/fileadmin/assets/educators/learning_labs/documents/ink_chromatography.pdf) or  
<https://www.acs.org/content/dam/AACT/elementary-school/chemistry-basics/separating-mixtures/lab-blackink.pdf>
9. Magic Mud (requires parental/guardian help):  
<https://safeshare.tv/my/safeviews/ss5b19b6cba6149/play>
10. Tie-Dyed Milk: <http://old.coolspace.org/CoolScience/KidScientists/tiedyemilk.htm>
11. Invisible Ink: <http://www.sciencekids.co.nz/experiments/invisibleink.html>

### **Life Science:**

1. Why do people take alka seltzer or tums for heartburn? Complete one of the pH tests above and add either a tums tablet or alka seltzer tablet to the solution. Observe what happens to the pH. After you complete the experiment, watch this video on the science of Tums: <https://safeshare.tv/x/CG9xFyq04d8#>
2. Why do we need minerals in our bones?  
<https://sciencebob.com/bend-a-bone-with-vinegar/>

3. Fruit DNA Extraction: <http://sciencecafe.org/content/extract-dna-from-fruit/> or <https://www.stevespanglerscience.com/lab/experiments/strawberry-dna/>
4. Iron for Breakfast? <https://www.stevespanglerscience.com/lab/experiments/eating-nails-for-breakfast/> or <https://www.youtube.com/watch?v=pRK15XSqtAw>
5. Osmosis and Diffusion-Growing/Shrinking Eggs: <https://www.stevespanglerscience.com/lab/experiments/growing-and-shrinking-egg/>
6. Color Changing Carnations: <https://www.stevespanglerscience.com/lab/experiments/colorful-carnations/>
7. Mix a batch of bread dough and separate it into several different bowls; place them in different places (outside, inside, in the dark, in the light) to see which environment yeast thrives in.
8. Homemade Lungs: <https://www.stevespanglerscience.com/lab/experiments/homemade-lung/>
9. Candy Neuron: <https://www.stevespanglerscience.com/lab/experiments/candy-neuron/>
10. Components of Blood: <https://www.stevespanglerscience.com/lab/experiments/components-of-blood/>

### Physical Science:

1. Build a Soap-Powered Model Boat: <https://sciencebob.com/build-a-soap-powered-model-boat/>
2. Cartesian Diver: <https://sciencebob.com/the-magic-ketchup-experiment/> or <https://www.stevespanglerscience.com/lab/experiments/five-divers/>
3. Sound Waves and Duck Calls: <https://sciencebob.com/make-a-simple-duck-call/>
4. Marshmallow Catapult: <https://nugent7thgradescience.weebly.com/uploads/5/9/7/6/59763951/marshmallowcatapultlab.pdf>
5. Stored Energy: [https://www.education.com/activity/article/Returning\\_Rod\\_middle/](https://www.education.com/activity/article/Returning_Rod_middle/)
6. Cartoon Physics: [https://www.education.com/activity/article/Cartoon\\_Physics\\_high/](https://www.education.com/activity/article/Cartoon_Physics_high/)
7. Homemade Hand Boiler: <https://www.stevespanglerscience.com/lab/experiments/homemade-hand-boiler/>
8. Why Does Water Rise? <https://www.stevespanglerscience.com/lab/experiments/why-does-the-water-rise/>
9. Balloon Powered Car: <https://www.stevespanglerscience.com/lab/experiments/balloon-powered-race-car/>

And many more: <https://www.stevespanglerscience.com/lab/experiments/>

**Are you looking for SSL hours over the summer? Email Ms. Redden at [Charmian\\_Redden@mcpsmd.org](mailto:Charmian_Redden@mcpsmd.org) to let me know.**