**Standard 5--Resources and Links--Vitamins and Minerals and Water**

<http://www.cdc.gov/nutrition/everyone/basics/vitamins/> This website gives a fact sheet for each vitamin and mineral. It is more detailed than the National Library of Medicine website, so would be of more interest to the teacher to use as background information.

<http://www.nlm.nih.gov/medlineplus/encyclopedia.html> Government website for fact sheets on vitamins and minerals, a little easier to read for the students.

<http://www.nlm.nih.gov/medlineplus/bvitamins.html> Government website with lots of links for more information. This link is to the B vitamins—folate is B9 . Also called Pteroylglutamic acid, “folate” refers to the form found naturally in foods, “folic acid” is the synthetic form found in supplements and fortified foods. The students could understand this website easily.

[Appendix C Nutrient Chart](http://www.nal.usda.gov/wicworks/Topics/FG/AppendixC_NutrientChart.pdf) USDA nutrient chart with functions, toxicities, deficiencies and food sources. Nothing flashy, but complete.

[http://kidshealth.org/kid/stay\_healthy/food/vitamin.html#](http://kidshealth.org/kid/stay_healthy/food/vitamin.html) Website is linked to the USDA and has three levels of information: For Kids, For Teens, For Parents. There is very basic information, but it always includes food sources for each vitamin. The negative about this site is that it goes out of its way not to use adult terminology. To learn the science words and phrases is a good thing, so the site is not helping in that regard. Otherwise, it is worth looking at for what good things the teacher can use. The “For Kids” tab is actually a better site than the “For Teens” to get the basic information—it is more direct.

<http://www.naturemade.com/resource-center/articles-and-videos/energy/get-buzzing-with-bs> A quick synopsis of all the B-vitamins, just ignore the last paragraph about buying their B-Complex multivitamins “for better health.”

Objective 4: Fruits and Vegetables:

<http://www.fruitsandveggiesmorematters.org/> Best.Database.Ever. Information on fruit and vegetable storage, an entire database of nutrition information on every fruit and vegetable that ever lived (canary melons??), recipes, videos, meal planning and more. Quick information, fun site. Students and teachers alike will enjoy exploring it.

[A World Without Food Science](http://www.ift.org/knowledge-center/learn-about-food-science/world-without-food-science.aspx) Tremendous video by the Institute of Food Technologists showing what Food Science means to our food supply. Food Science is the “to” in “Gate to Plate.”

[Nutrition Retention Tables](https://www.dropbox.com/sh/laroplhwk59a8s7/AAAYeBzCrJF-zAgQo3W8b2H_a/STANDARD%205--Vitamins?dl=0&preview=retention+tables.pdf) Document from the government of vitamin retention for foods according to their preparation.

[Deficiency Diseases and Images](https://www.dropbox.com/sh/laroplhwk59a8s7/AAAYeBzCrJF-zAgQo3W8b2H_a/STANDARD%205--Vitamins?dl=0&preview=Vitamin%2C+Mineral+Deficiencies+Diseases+and+Information+May+2015.docx) –Links to information and images of deficiency diseases. Below are the individual links found on the Deficiency page:

*Vitamin A—Hypovitaminosis A:* <http://www.slideshare.net/claiddin/vitamin-a-39881139> Good slide show about Vitamin A—one picture of a child with xerophthalmia (blindness caused by Vit. A deficiency.) Many other diseases caused by deficiency.

*Vitamin D—rickets or osteomalacia:* <http://www.thachers.org/rickets_photos.htm> photos of children in Nigeria with rickets. If you scroll down, there are “before and after” photos of two children with rickets, and after two years on calcium (Vitamin D and calcium need each other to work in the body—this is why milk is usually Vitamin D fortified).

*Vitamin E:* [*Vitamin E deficiency is rare in healthy people: there is no specific disease caused by lack of Vitamin E that is then reversed by taking Vitamin E. Signs of deficiency are red blood cell breakage and anemia, nerve degeneration, weakness, leg cramps*]

*Vitamin K—no name: deficiency results in hemorrhaging:* [Vitamin K](http://www.merckmanuals.com/home/disorders-of-nutrition/vitamins/vitamin-k) No images, but basic consumer information on vitamin K.

*Vitamin C—scurvy:* [Scurvy Images](http://www.sciencephoto.com/subject/Medicine%3A%20Diseases%20%26%20Ailments/disease%20-%20metabolic,%20systemic%20%26%20hormonal/scurvy) from Science Photo. [Scurvy Information](http://www.nlm.nih.gov/medlineplus/ency/article/002404.htm)

*Folate:* [Folate](http://www.merckmanuals.com/home/disorders-of-nutrition/vitamins/folate) Merck, the drug company, information on Folate. [Spina Bifida Information Video](https://www.youtube.com/watch?v=6Ii_v3t9hpU) This is a set of 12 short videos from the Children’s Hospital of Philadelphia, the second video (where the link takes you) talks about what spina bifida is.

Mineral/Electrolyte deficiencies—no visuals

*Calcium (Ca)—osteoporosis—see also Vitamin D because they need each other to function.* [Calcium Information](http://www.nlm.nih.gov/medlineplus/ency/article/002412.htm)

*Iron (Fe)—iron deficiency anemia:* [Mayo Clinic Anemia information](http://www.mayoclinic.org/diseases-conditions/iron-deficiency-anemia/basics/definition/con-20019327) or [CDC information on anemia](http://www.cdc.gov/nutrition/everyone/basics/vitamins/iron.html)

*Potassium (K)—dehydration:* [Potassium Information](http://www.eatright.org/resource/food/vitamins-and-supplements/types-of-vitamins-and-nutrients/potassium)

*Sodium (Na)—muscle cramps:* [Sodium Information](http://www.nlm.nih.gov/medlineplus/dietarysodium.html)

<http://mentalfloss.com/article/50697/4-diseases-caused-lack-essential-vitamins-and-minerals> Has a few pictures and the history of rickets, scurvy, pellagra and beriberi--at

least one picture for each.

Water:

<http://www.cdc.gov/nutrition/everyone/basics/water.html> Basics of water: functions and needs.

[Sports Nutrition and Hydration](http://www.uen.org/cte/facs_cabinet/downloads/ConferenceProceedings/2014/nutrition/SportsNutrition.pdf) from the 2014 Conference. This is in the UEN file cabinet, but the link takes you directly to the pdf of the Prezi made for the Conference.