Websites full of awe.
Use them.
Be glad.

a guide by Chad Ostrowski

for students in Engineering Science
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about this guide

This guide will take you on a fast romp through the awesomer (awe-fuller?) parts of the interwebs. It assumes you’re an aspiring Engineering Scientist and will therefore have an interest in calculating numbers, looking up interesting data, researching trending scientific topics, and writing technical documents. So the awesomer parts shown to you will be of these natures.
Wolfram | Alpha

Wolfram | Alpha is a "computational knowledge engine" that contains relevant data for nearly anything a person would care to look up.

**Abstract**: Wolfram | Alpha, begun in May 2009, functions as a "knowledge engine". Rather than striving for the comprehensiveness of an encyclopedia, it fabulously delivers quick facts about nearly any subject. Additionally, as a free online calculator, it is unparalleled. The benefit of the Wolfram | Alpha calculator, however, is that it shows you your equation in mathematical form. To see what I mean, try typing "(9 choose 3) /sqrt(2)". Additionally, Wolfram | Alpha will perform integrations, derivations, and will plot functions for you. Beyond the calculator functionality (which is enough reason to visit frequently), try typing in names (like Ryan or Verna), chemical compounds (caffeine or insulin), dates, constellations, or even questions. Names will bring up information about how many people have that name and when it was most popular to name a baby that; chemical compounds will bring up 3D representations of the molecule; dates bring up how long ago the date was, when it will happen again, major observances, and more; and simple questions will be answered (indeed, I refer to the service as "Wolfram | Alpha" and not "WolframAlpha" because asking it "What is your name?" returns "My name is Wolfram | Alpha").

Tips:

- Pay attention to the "Assuming that ________ is a ________" text at the top. Typing in an equation with "i" will bring up "Assuming that i is the imaginary unit | Use i as a variable instead". Likewise, some names (like Chad) are used as much more than names—it assumes that Chad is a country when you first enter it.
- Have fun! This is a great resource to just play around on, and as it just provides data, will never meander into any worlds that conflict with your worldviews.
KnightCite

www.calvin.edu/library/knightcite/

KnightCite is a reputable citation service that makes inserting citations and bibliographies easy.

Abstract: You probably wish you had KnightCite all through high school. There are other services that perform similar functions (easybib.com, bibme.com, Draper Library Bibliography Maker, and even Microsoft Word 2007), but KnightCite has one of the smoothest interfaces. Rather than selecting the type of source from a long, unsorted list as most other sites demand, KnightCite has a sidebar with resource types sorted by major category. Clicking on them automatically changes the fields in the main page, so if you're familiar with what fields you ought to be filling out, you'll be able to find the correct one easily.

Tips:

- Rather than letting you cite different types of online or in-print sources, KnightCite allows you to select a radio button and turn any in-print source into an online source.

Access Science

www.accessscience.com

Access Science is a great place to go for encyclopedic information about nearly all topics. Before really digging into scholarly topics & journals, Access Science is a nice place to visit for general information.

Abstract: Wikipedia is easy and memorable and subversive, but unfortunately also disreputable. Rather than using it for your first-round information, try using Access Science instead. You'll get carefully moderated content (that only a few people can edit) about only
technology and science (so you won't get distracted by comic book superheroes named "Bessel" and the like) and you can actually cite the articles in papers you write. In fact, they make citations superbly easy by including a "How to cite this article" at the bottom of each one. Though the typical article doesn't link to quite as many sources as the typical Wikipedia article, it generally links to textbooks and the like, which could be very good or very annoying, depending on your project.

Tips:

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**Compendex**

**IEEE Xplore** - for finding standards on all sorts of things. Needed out in jobs (like Google).

**Materials Science articles**

**Ulrich's Web** - for finding magazines, journals, newspapers, newsletters, 'zines and more. Indicates whether or not they are peer-reviewed and/or electronic.

Wikipedia replacements:

**Access Science**

**Gale Virtual Reference Library**

Citing Resources:

**KnightCite**