Biotechnology Teaching Resources

http://www.dnalc.org/home.html
An awesome site from the Dolan DNA Learning Center at Cold Spring Harbor Labs, it contains a wealth of instructional tools on genetics, DNA, and human health. The DNAi tool is an especially useful resource for teachers.

http://www.accessexcellence.org/
A good general science-teaching resource, and the “graphics gallery” contains many useful images for biotech/molecular biology lessons

http://bsw-uiuc.net/
Biology Students Workbench, an educational site of DNA analysis and bioinformatics content aimed at high school students and undergrads. The site is centered around the DNA analysis Biology Workbench (see below). Requires free registration.

Plant Science Teaching Resources

http://www.greenomes.org/
Aimed at higher level high schoolers and undergraduates, this site focuses on plant genomics for the classroom (the site is still in the ‘seedling’ stage)

http://plantsinmotion.bio.indiana.edu/plantmotion/starthere.html
Contains some cool time-lapse movies of plants in action, with instructions for making your own time-lapse movies

http://www.fastplants.org
“Fast plants” are excellent for classroom experiments and have been used in thousands of classrooms.

http://www.aspb.org/education/NEWK12.CFM
Teaching resources from the American Society of Plant Biologists (ASPB)

DNA Analysis

THE National Center for Biotechnology Information. Use the Nucleotide database to retrieve sequences for any known gene, use BLAST to compare any sequence against the entire database, visit the Human Genome Resources page for information and educational tools.

http://workbench.sdsc.edu/
The Biology Workbench site contains a number of programs for analyzing DNA and protein sequences, e.g., use the SIXFRAME program to find open reading frames in your DNA sequence, or the TACG program to look for restriction enzyme target sequences. Check out the associated Biology Student Workbench (see above) for educational resources.