Internet Resources

This is a list of our favorite Internet resources for teaching about DNA, Genetics and Biotechnology.

UH resources for agricultural biotechnology

CTAHR Publications: Adult level resources that provide biotechnology information that is specific to Hawaii. Samples of these resources are in the back section of this notebook. http://www.ctahr.hawaii.edu/ctahr2001/PIO/FreePubs/FreePubs01.asp#biotech

Biotechnology Outreach Program Website: Provides general information about biotechnology issues as well as topics specific to Hawaii. Provides links to additional resources on covered topics. http://www.ctahr.hawaii.edu/biotech/

Genetics Resources

Genetics Science Learning Center at the University of Utah

This site has clear explanations, common student misconceptions and background information. Check out the virtual PCR and log onto the teachers page for complete lessons for grades 5-12. The "Print–and-Go" lessons include resources for heredity, addiction, cloning, stem cells and medical applications.

Utah Genetics has virtual labs for DNA extraction, PCR, gel electrophoresis, and DNA microarray. Instructions are included for making an electrophoresis chamber.

http://learn.genetics.utah.edu/

Dolan Learning Center

This resource has lessons for students in grades 9-12. The site also has extensive teacher guides, and lesson plans. This is the best source for historical information. Teachers can set up an assignment page for students who are using the site. http://www.dnai.org/

http://www.dnai.org/teacherguide/guide.html

The Dolan web page for agricultural genetics includes PCR based labs for advanced students.

http://www.greenomes.org/

The Tech - Understanding Genetics

Interactive activities for 7-12

The “Genetics in the News” and the “Ask a Geneticist: sections are good starting points for choosing a research topic. The topics covered include background information and links to more information. The site introduces ethical considerations of biotechnology.

http://www.thetech.org/genetics/

Biotechnology Resources

Biotechnology Institute

This biotech industry supported website has free on-line magazines for classroom use. The on-line magazines come with teacher guides and cover a range of topics including agriculture, hereditary, and medicine. An emphasis is placed on the applications of new technologies. See a sample *Your World* at back of this binder.

http://www.biotechinstitute.org/resources/your_world_magazine.html

Greenpeace Presents arguments against the use of GE foods.

http://www.greenpeace.org/international/campaigns/genetic-engineering

NSTA/Environmental Literacy Council - Source for background information and student materials.

http://www.enviroliteracy.org/nsfmod/GM-Crops.pdf

BIOTECH Project of the University of Arizona

This site has a group of labs that include student and teacher guides.

http://biotech.biology.arizona.edu/labs/labs.html

Animation sites

YouTube A search under DNA or more specific terms brings up many high quality animations. Some of these can be downloaded, as indicated by the button at the top right of the video.

http://www.youtube.com/

Howard Hughes Medical Institute Download animations on replication, transcription, mutation and genetic engineering.

http://www.hhmi.org/biointeractive/dna/animations.html

Cell Biology Animations Nice animations of mitosis and meiosis among others.

http://www.johnkyrk.com/index.html

The Inner Life of the Cell Animation of cell functions. The shorter version has music. The longer version has narration at the college level.

http://multimedia.mcb.harvard.edu/

Internet Games

Nobelprize.org Race to match base pairs

http://nobelprize.org/educational_games/medicine/dna_double_helix/

Suppliers:

Carolina

http://www.carolina.com/product/detecting+gm+food+extraction+and+amplification+kit+with+0.5-ml+tubes.do?s_cid=site_genorigins

Bio-Rad

http://www.bio-rad.com/evportal/evolutionPortal.portal?_nfpb=true&_pageLabel=ProductsLandingPage&catID=1457