Teach.Genetics from the Genetic Science Learning Center at the University of Utah
http://teach.genetics.utah.edu/
DOI: 10.1128/jmbe.v11.i1.145

Currently, all that is available on this website is a beta version preview of the University of Utah’s (UU) new Teach.Genetics website, a companion to its Learn.Genetics site, also reviewed in this issue. The three current segments of this website are: “Print-and-Go Lesson Plan Index”, “Epigenetics: Supplemental Materials”, and “Amazing Cells: Supplemental Materials”.

According to the Genetic Science Learning Center of UU, the “Print-and-Go Lesson Plan Index” contains activities “designed to support and extend students’ learning of topics” on the center’s Learn.Genetics website. There are links to over 70 activities covering many of the topics on the Learn.Genetics site including: The New Science of Addiction: Genetics and the Brain, Cloning: DNA to Protein, Using Family History to Improve your Health, Epigenetic, Heredity and Traits, Stem Cells, and Newborn Genetic Screening. Each activity (provided in PDF format with overhead printable masters) contains an abstract, the logistics and time required, materials required, prior knowledge needed, an indication of educational level, and learning objectives. It then guides you step-by-step through classroom implementation, including additional adaptations and/or extensions of the exercise. For example, the “Jumpin’ the Gap” activity has students behaving as vesicles, neurotransmitters, receptors, secondary messengers, and transporters in order to act out neural communication. In the “Does Sunscreen Protect My DNA?” activity, students investigate how well different sunscreens protect yeast from ultraviolet radiation. The “Have Your DNA and Eat It Too” activity has students make an edible molecule of DNA out of licorice, toothpicks, and colored marshmallows. These edible DNA molecules are then used in a subsequent activity, “Reading DNA,” to transcribe an edible mRNA sequence from the DNA, and translate it into protein.

The section on epigenetics has several of the animations from Learn.Genetics but with added learning objectives and assessment questions. There are also two activities that can be downloaded as PDF files. Finally, the “Amazing Cell: Supplemental Materials” section also has a number of separate activities that can be downloaded as PDFs.

Most of these activities seem to be designed for use by instructors teaching grades 6–12, with a few applicable to college students. Some activities, like “Jumpin’ the Gap” and “Does Sunscreen Protect My DNA?” would be effective and interesting for this age category, whereas others may not. For example, “From Coffee to Carbon,” which is used to accompany the excellent animation of the same name, simply has students cut out the pictures of the objects shown in the animation and arrange them according to size. Also, “Inside a Cell: A Worksheet” is just a drawing of a cell – with rather poor graphics – and a table that is used by the student to name the structure and its function.

This is, admittedly, a beta trial version, and the website does invite viewers to keep coming back to see new additions. For now, if one is a teacher who is looking for activities that can be done on a limited budget and who has the time to search through the lists of activities, it could be worth the effort. Compared to their better-established Learn.Genetics website, however, this site is still a work in progress which would benefit from user feedback.

Gary E. Kaiser
The Community College of Baltimore County
Catonsville, Maryland
E-mail: gkaiser@ccbc.edu