

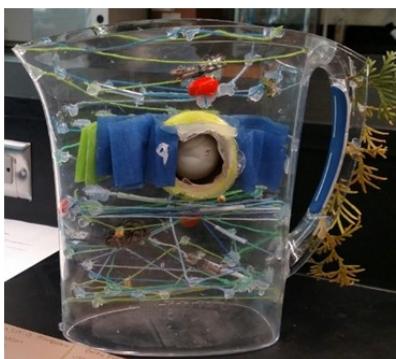
“Sustain-A-Cell” Modeling Project Uses Found Materials

Marian Brown, director
Center for Sustainability and the Environment
Wells College

For her Fall *Anatomy & Physiology* course, Wells College Biology professor Christina Schmidt assigns pairs of students the task to learn about cell structure and function through their creation of a cell model. Again this year, Christina instructed her students to make their cell models more sustainable through the use of ‘found’ and/or ‘natural materials’. She calls this class project “*Sustain-a-Cell*”.

Before turning her teams loose to create their cell models, Christina invited me to instruct the class on what are ‘found’ materials and where to look for them on campus. Two ground rules I set for acceptable “found” materials: don’t take anything that is still usable and make it *unusable*, and don’t take things without permission (like other students’ art projects). Suggested locations for “found” objects are our two free campus reuse areas: *Bargain Basement* for housewares, costumes and arts & crafts, and the *RUMPUS Room* for office supplies. I suggest checking recycling bins for used paper and plastic containers as well as looking in the IT department’s *e-waste* collection Gaylord box.

Both years we have collaborated on this project, the *Center for Sustainability* has incented the lab teams with cash prizes for excellent efforts. Winning teams have to meet Professor Schmidt’s criteria for complete responsiveness to the “*Sustain-a-Cell*” assignment: including all cell organelles in the model and identifying their function, as well as identifying the materials used – and where those materials came from - to represent each cell component. I evaluate entries in three categories: *Most Creative Use of Found Materials*, *Most Creative Use of Natural Materials*, and *Most Amusing Use of Found and/or Natural Materials*.



Most Creative Use of Found Materials.

This year’s team winning for “*Most Creative Use of Found Materials*” used a broken Brita pitcher as the cell membrane to which they hot-glued various other “found” items to represent cell components (e.g. an old tennis ball, used string, colored streamers left over from a campus event, popcorn kernels).



Most Amusing Use of Natural Materials

The winning team for the “*Most Creative Use of Natural Materials*” started with a hollowed-out pumpkin as their cell membrane and used only biological materials to represent the internal components. The hands-down winner for the “*Most Amusing Use of Materials*” went to the duo that used chewed pink bubble gum shaped into several cell organelles.

This “*Sustain-a-Cell*” assignment, which represents a great academic partnership with Natural Sciences faculty, offers a tremendous learning opportunity for our students. And it is just plain a “hoot” to see what they come up with.



Most Creative Use of Natural Materials