

## Education and Training

### Spreading the Seed of Biomimicry

The Biomimicry Institute has a passion for both formal and informal public education from K-12 and university to museum exhibits, nature center programs, media, and publications. Wherever we teach biomimicry, we have the choice of teaching it as a separate subject, or incorporating it as a problem-solving method into any number of different subjects. We feel that the latter is a more useful way of naturalizing biomimicry in the culture. For instance, teachers can introduce biomimicry as a way to get ideas for green reactions in chemistry class, better structural designs in engineering class, or even better policy in economics class. We think this integration of bio-inspired problem-solving into all subjects prevents the “siloing” of biomimicry.

What teachers tell us they need, in addition to a description of the method, is access to biological information that will help inspire their students. For this reason, the Institute would like to create “biological know-how” modules that will simultaneously meet the needs of all of our educational efforts. An example might be a module on how nature filters and purifies water. The module would contain information on nature’s champion filterers, such as mangroves, filter feeders, and kidneys, along with case studies of any technologies that have been inspired by these mentors. The same module would serve several different educational venues. For example, photos, content, and case studies might appear as a supplement to a water exhibit at a science museum. Project Wild! type curricula packets on the topic could be posted on the portal for easy distribution to K-12 teachers. Design studios helping direct designers toward specific biomimetic design solutions could also use the same theme-based content. Scientific content on water filtration would also be in the portal, hopefully encouraging engineers and designers to research nature’s strategies for their designs. We also plan to write short articles for the media on the topic.

We are confident that our approach will help distribute the seeds of biomimicry much more effectively. Initially, we plan to focus on themes that address pervasive sustainability challenges.

Photograph courtesy of Brad Smith