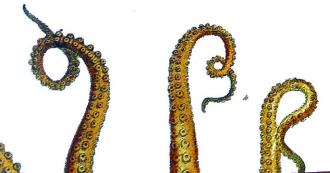


A NATURE-INSPIRED APPROACH

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THE HEMOGLOBIN MOLECULE IN OUR BLOOD, represented here as a public sculpture, changes shape upon contact with oxygen, which alters its interaction with light and hence color—a potentially promising model for designing clear tape one can easily find the end of on a roll. The images show changes to the color of the sculpture's metal once exposed to the elements, at installation (left), after ten days (middle), and after one month (right).

Of course, first-hand discovery isn't the only way to develop biological inspiration: you can also learn from what others have discovered about Nature. We now live in a world where exploring biological information others have developed has never been easier. Students can go to the Internet, where, with a few judicious words typed into a search box (e.g., temperature + regulation + species), a world of information is zipped right to their eyes while they just sit there, the way burgers used to be skated to your car at drive-in diners. You can search the entire Internet for information or use narrower databases (see the Additional Resources section at the end of the chapter).

ACTIVITY: Tapping Into Human Resources

Another source of biological inspiration that many overlook comes from actual biologists, who have troves of potential information that doesn't appear on the Internet or make it into scientific papers. Once your students are ready with their well-defined and well-translated challenges, have them identify naturalists and biologists who work on related topics, and then have them craft an e-mail describing their project and asking for any ideas of biological models to consider for their challenge. If nothing else, you'll help develop your students' abilities to communicate clearly, politely, and strategically with others.