



Senior Spotlight!- Trevor Bush on Biomimicry

If there's one person at the Parker school that you can count on for a simple, easy to understand description of a deeply complex scientific topic, it's Trevor Bush. Trevor's senior project is on biomimicry, a topic that to the average student, would be daunting. Instead of being intimidated, Trevor is excited, he speaks passionately about the topic and talks effortlessly about his ideas and experiences. Trevor's knowledge of the topic seems to know no boundaries.



"What is biomimicry though?" is undoubtedly the first question anyone would ask of Trevor. He explains that biomimicry is modeling the systems, structures, and processes found in nature and creating human things with them. He gives the example of velcro. The man who invented velcro first found a burr on his clothes and noticed the hook and loop tactic that the burr used to stick. He figured out he could use it to create a product that functions for humans and now human beings use velcro all the time without ever thinking or knowing about the inspiration behind it.



Trevor explains that he doesn't just care about the making of products for humans, he also wants to make sure his work is sustainable. He says that products like airplanes, modeled after birds, have been a result of biomimicry. However, airplanes emit toxic gasses that aren't good for the environment. He explains that as time has gone on humans have gotten further and further away from nature. Some of his goals would be to make things that are "regenerative, sustainable, and, reconnect with nature." Biomimicry has ways of connecting humans to the natural world. Examples of this kind of sustainable developing are all over. He says that one example is scientists using biomimicry to save birds lives. He explains that the second leading cause of death for birds is flying into windows, but spiders have learned to create their webs with ultraviolet light so that birds don't fly through them. Humans, taking a little tip from the spiders, began to put ultraviolet light in windows to save the lives of birds.

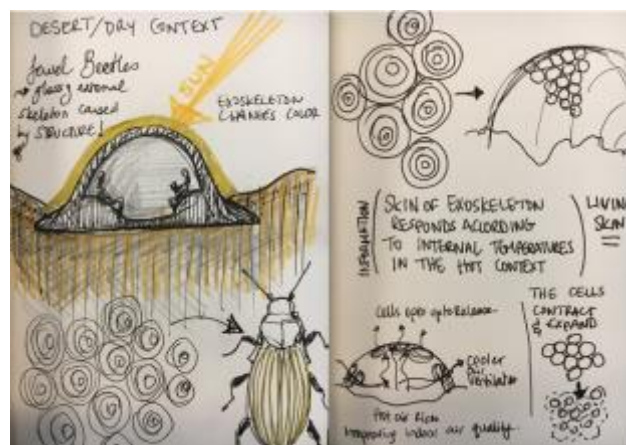
For his product, Trevor may just be able to bring some of his ideas to life and create his own innovations inspired by nature. He has also considered the idea of working with a Division 1 class to help teach them a little bit about biomimicry and its role in the world.



Trevor's curiosity about biomimicry started at the Cape Cod Natural History Museum in Brewster, where Trevor works during the summer. There, he says he came across a new exhibit all about biomimicry and he was fascinated. The exhibit was made by a man named Peter Lawrence, head of Biomimicry New England. Biomimicry New England is an organization who's mission is to "establish nature and natural systems as an important resource for education and innovation in New England." After seeing the exhibit, Trevor knew he wanted to learn more, leading him directly to this project. Now that he's researching it, Trevor has actually had the opportunity to talk to Peter Lawrence, bringing his project nearly full circle.



Right now, Trevor is in the process of articulating his essential question and identifying a problem that he wants to help fix for his product. He's also on the look out for experiential learning experiences that will make his project memorable. When asked whether the pandemic had affected his project at all he explains that without the virus he may have taken courses on the subject. Also, that biomimicry is a very hands on field and he would've like the chance to engage with people while working on his project. Fortunately, Trevor seems to be making an incredible project for himself despite the pandemic.



In classic Parker fashion at the end of the interview Trevor was asked the question "If your senior project was fruit, what fruit would it be?" After careful deliberation and about two weeks worth of think time, Trevor gave a response. "POMEGRANATE" he declared (via a text message) "It has casings, webs folds, and veins. There's a lot of little details that all come together to create an amazing fruit." He also added "It also had two layers which I can think of as gaining a broad understanding and then the inner part has all the many little details about the process of Biomimicry." Trevor's passionate and detail oriented answer to this question is indicative of his attitude towards the entire project. Biomimicry may be complex, but its nothing that Trevor can't handle.