

BOISE WATERSHED

Weekly Challenge (Week 5)

Welcome to the WaterShed Weekly Challenge. Every week during the summer the Boise WaterShed will release one challenge for people at home to complete. These challenges will focus on a STEM topic and each completed challenge will give you one raffle ticket for a chance to win a family membership to the Discovery Center of Idaho. The raffle will take place at the end of the summer! The more challenges you complete, the better your chances of winning are. Every participant in this program through the spring and summer will receive a packet of goodies from the Boise WaterShed. You can complete these challenges at any point throughout the summer. See below for how to submit a completed challenge. We would love to share your experiences with these challenges. If you take any pictures or videos of completing or working on these challenges, send them to us and we will feature them every Friday on a special Facebook shout-out message. You can also tag us on Facebook, @BoiseWS.

WEEK 5: BIOMIMICRY CHALLENGE

When we think of engineers, we usually think of women and men who build things. However, engineers can do so much more than just build machines or buildings. They can design computer programs, manipulate the landscape so that we can use it, design chemicals, and even build tools for doctors to use. No matter what an engineer does, the main part of their job is to solve problems and improve the things we already have. One of the places that engineers use for inspiration in designing their solutions is nature. The natural world has been around a lot longer than we have. In that amount of time, it has learned how to do many things. When presented with a problem, engineers will often look at living things in nature to see if there is already a solution to that problem and then “mimic” the solutions they find. Often, the engineers will refine and adapt the solution to be even better for humans. This practice is one that we call Biomimicry. Bio means life and mimicry means to copy. There are many great examples of Biomimicry that we already use: planes use wings just like birds do, the idea to create modern paper was taken from paper hornets building their nests, even the West Boise Water Renewal Facility where the Boise WaterShed is located uses processes that are found in nature and concentrates them in order to renew all the used water in Boise. Biomimicry is all around us, even if we don't think about it.

RESOURCES

Here are some great resources about biomimicry so that you can start learning about how it affects your world:

The Biomimicry Institute: biomimicry.org

Science Focus: 10 Examples of Biomimicry: sciencefocus.com/future-technology/bio-mimetic-design-10-examples-of-nature-inspiring-technology

Biomimicry: definitions and examples (explained with drawings): [youtube.com/watch?v=UHb_XNgIHFY](https://www.youtube.com/watch?v=UHb_XNgIHFY)

There are many more resources online!



