

BIOMIMICRY

YOUTH DESIGN CHALLENGE

Project Portfolio Checklist

As you begin the Youth Design Challenge, review this checklist so you have everything you need to finish your project. We will revisit this list at the end where you will Communicate the problem that you worked to solve, your nature-inspired design solution, and how well it meets our sustainability goals.

1. Document your design process by taking pictures as you go. Save sketches, drawings, and notes. Those images and information will help you remember your experience and be better able to tell your story.
2. Include plenty of images in your portfolio, so you can both “show” and “tell” the judges about what you created. Images may include photographs of you and your team working on the project, nature explorations and biological models, testing a prototype, and/or meeting with stakeholders or experts. They can also include drawings and diagrams that show your thinking and design process. Be sure to caption your images to explain what they are.

The checklist below describes the essential parts of a complete Project Portfolio.

- Our title page includes all the required information.
- We have described the design problem, including the specific SDG we chose to work on and the criteria and constraints we identified for solving our chosen problem.
- We have described the biological models we studied, including:
 - The functions we researched (i.e. “how does nature...” questions).
 - What biological models we found and how they have used similar strategies relevant to the problem.
 - How our biological models’ strategies work.
 - The key lessons we learned about how nature solves this problem.
 - How we translated the biological strategies into design.
- We have described how we developed our design ideas, including:
 - The initial design concepts we came up with.
 - How we evaluated and refined our initial ideas. (i.e. considering feasibility of how the design could work in real-world application, talking to potential users or outside experts to get feedback, etc.).
 - How we modified our design based on testing/feedback and whether it performed better.
- We have described our final design concept clearly and completely, including:
 - How it works to solve the problem initially proposed.
 - In what ways it is inspired by our biological model(s).
 - How the three essential elements of biomimicry were included (emulate, ethos and (re)connect).
- We have included necessary references and works cited, including:
 - Images have credits and/or captions.
 - Research references are complete and experts consulted are included.
 - We have included photos, drawings, and diagrams where needed to clearly communicate our research, design process, and solution.
- We have checked our work for mistakes and typographical errors.