

Stream Solutions Biomimicry Team

Project Portfolio Guide

Project Name: _____

Names of Group Members: _____

Review the *Stream Solutions Biomimicry Design Challenge* and refer to the *Biomimicry Institute - Design Challenge Rubric* for the criteria against which projects will be evaluated.

How can learning from nature help us solve a local environmental issue that affects our streams or watersheds?

PROJECT OVERVIEW

The Project Overview consists of three questions. **Each response has a 100 word limit.**

1. What is the problem your team addressed for this challenge and how is it related to our streams and watersheds?

- *How does a specific environmental issue affect our watershed, people, and place where we live?*
- *What impacts do activities in our community have on our local stream or watershed?*

2. What does your design solution do? How does it solve or improve the problem you selected?

Explore the wonders of the natural world and create a nature-inspired physical technology, process, or system that addresses an environmental issue by:

- *Helping stream habitats adapt to human impacts AND/OR*
- *Reversing or slowing the human impacts on streams and watersheds*

How was your solution inspired by nature?

What organisms did you learn from and how did what you learned inform your design?

(Adapted from the Biomimicry Youth Design Challenge Guidelines <https://www.youthchallenge.biomimicry.org/>)

PROJECT IMAGE

The project image is a drawing, diagram, or photograph that clearly portrays your team's design solution. Include an image caption.

Project image:



This resource is part of the BC Urban Streams & Watersheds lesson plans, assembled in 2025. Learn more and download additional resources at www.engagewithnbs.ca/for-schools

This material is available to reuse and adapt in your classroom.



TEAM PHOTO

Provide an image depicting all team members.

Team photo:

Next, choose
OPTION 1: *VIDEO PITCH*
or
OPTION 2: *PROJECT PORTFOLIO*



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OPTION 1: VIDEO PITCH

The **Video Pitch** should provide an engaging overview of your design project. Be sure the video includes an explanation of the specific climate-related problem the innovation solves, how it is inspired by nature, and conveys key discoveries or insights from the design process.

See the requirements of what to include in your video in the portfolio section. The supplied *Biomimicry Institute - Video Pitch Tips* resource provides additional suggestions and resources that can help you create a compelling video.

Video requirements:

- **Each member must contribute to the video.**
- **Not to exceed 3 minutes in length.**
- **Uploaded to Google Drive with shared link below.**
- **Include credits for all images, video clips, and music used that are not your own creation.**

Write the pitch here.

Put the link to the video here:

https://



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OPTION 2: *PROJECT PORTFOLIO*

The Project Portfolio is a document or presentation slides that combines text and images to tell the story of your team's biomimicry design and process for developing it. The portfolio should illustrate how your team approached selecting a specific environmental issue related to the stream. Consider including how you researched biological models, and how you developed the bio-inspired design solution, including testing ideas and getting feedback from others.

Portfolio requirements:

- **Slide 1: Title Page** - Project Name, Team Members, School, Grade Level, and Project Photo (optional).
- **Slide 2: Meet the Team** - Team Photo.
- **Slide 3: Project Abstract** - Problem that SDG addressed, biological models used as mentors, criteria and constraints listed (summary of the project in 75 words or less).
- **Slide 4: Innovate** - Problem is defined with a proposed solution that defines who needs the design, what is needed in the design, and why the design is needed.
- **Slide 5: Inspiration/Match** - The biological models that were used for the design, including the abstracted design principle (ADP).
- **Slide 6 & 7: Iterations/Process** - The process of developing the designs along the way. Show all of the “design failures” that you encountered. Annotate the models to show the strengths and limitations of the designs.
- **Slide 8: Final Project Image** - Provide an image with labels of design features, include how the 3 essential elements of biomimicry were used in the design:
 1. **Ethos** — care for life; the philosophy of understanding how life works and creating designs that continuously support and create conditions conducive to life.
 2. **(Re)Connect** — acknowledges that we are nature and finds value in connecting to our place on Earth as part of life's interconnected systems; encourages us to observe and spend time in nature to understand how life works so that we may have a better ethos to emulate biological strategies in our designs. (for example, in the field or AskNature research)
 3. **Emulate** — copies nature; the scientific, research-based practice of learning from and then replicating nature's forms, processes, and ecosystems to create increasingly regenerative designs.
- **Slide 9 & 10: References and Works Cited** - for all sources, image credits, and experts consulted. Include any AskNature website pages used. (If image credits are provided within captions, there is no need to provide additional citations in the references list.)

Put the link to the portfolio here:

https://