

SS Biomimicry Workshop 2015

May 20, 2015 Class 3:

Review of biomimicry methodology (scoping). Next steps in biomimicry methodology (discovering, creating, and evaluating).

Intent of Class: Have a working knowledge of how to apply the biomimicry framework.

Homework:

- A) Review the Challenge to Biology work sheet/start one for your challenge and Tell a story to share with the group during the June webinar**
- B) AskNature.org**
- C) iSite**
- D) Watch “Evolution of a Butterfly”**

Homework is due to Marie and Diana via email by June 15

- A) Review the Challenge to Biology work sheet and start one for your challenge**

You have completed the initial steps in the Challenge to Biology Methodology by identifying the function(s) and context for your challenge. Attached is the methodology with the example from Great Sand Dune’s portable hydration challenge.

As a team, review and discuss this methodology. Fill in the part that your team has already completed. Biologize your function(s).

Tell a story: Attached is the case study for the Great Sand Dunes workshop challenges. Once your team has found a solution for your challenge, your experiences will be valuable to others working in the field of biomimicry or to those considering using the biomimicry approach. It is important to document your progress, mistakes, eureka moments and other thought as you progress. This will serve as useful notes for your case study report.

Write a paragraph about some part of your process to date, either about forming a team, identifying your function or context, or even the use of the webinar approach.

Present: One team member will share this short story with the group during our June webinar.

- B) AskNature.org. (*Ongoing*)**

You will be using Asknature as one place to discover strategies from nature to perform your function(s). Log onto the web page and go through the tutorial and practice using the site. If you want to move ahead, start finding strategies in the biological

literature. Next month's webinar will include instructions on how to abstract the deep design principles from these strategies.

C) iSite: (*On-going*)

Continue your practice: here are a few ideas for you to try if you find them interesting. If not – just continue to observe and expand your observation skills in Nature.

Translate what you see: Create a drawing of one system in the environment you see around you, for example, draw the system of energy flows. Use arrows, symbols, and notes like those you would find in any engineering drawing.

Consider a business or government organization as an ecosystem: Think about what it would mean to run a company or a government organization like the ecosystem that you are in right now runs. How would you translate the terms describing the resources, systems, flows, and functions of the ecosystem into terms describing the resources, systems, flows and functions that make sense for a company or government organization? This will help you translate biological language into bureaucratic, engineering and design language for your challenge.

D) Watch Evolution of a Butterfly – YouTube video (4 minutes):

https://www.youtube.com/watch?v=gcacx_i6MIE&feature=player_embedded