**Biomimicry Workshop 2012**

**Class 1:** Biomimicry history, ethics and philosophy. Biomimicry design approach. Learn about function

**Intent of Class:** Discover the three seeds of biomimicry, ethos, (re)connect and emulate. Learn how to integrate of biology into the design process. Learn how to identify the function in your design challenge.

**Homework: A) Team introductions B) learn about function C) watch video D) iSite**

**Homework is due to Marie via email by May 13, 2012**

**A) Team Introduction:** Two Teams will introduce themselves at each of the next 2 webinars. This way we will be somewhat familiar with each other before the in-person sessions and I can get to know you all better. For this assignment, each team must submit one or a few (keep it simple) power point slides with the following:

1. Team Name

2. Who will present – Myla will turn the presenter status over to one the team members to go through the power point slides.

3. Introduction slide(s): you may want to state your names, education and/or experience, photos, areas of expertise, place of work, what do you like to do?, what brought you to biomimicry?

None of these are mandatory (except for your name) - decide what you would like to know about

each other and tell the rest of the class.

Each team needs to prepare the assignment – even if you do not present until later. It will be a

good way to get to know each other. The schedule for team presentations is:

May 17 Challenge Team #1: How does Nature collect, distribute and store water with minimal energy use?

May 17 Challenge Team #2: How does Nature organize?

June 21 Challenge Team #3: How does Nature communicate?

June 21 Challenge Team #4: How do Front Range species adapt to seasonal changes in climate, inform human technologies, contribute to problem solving and how can we interpret these function for the human visitor

**B) Learn about function:** 1. Complete the Learn About Function exercises in the attached

files. Discuss with your team and compare answers.

2. Determine “What is the function(s) you want to achieve in your challenge?”

Prepare a power point slide with your team name, your challenge and the function(s) you are

trying to achieve. Sharing them at the next webinar we can see if there are functions that other

teams are trying to achieve.

**C) Watch the video** of Ray Anderson CEO of Interface Carpet as he tells the story of how he

used biomimicry to innovate his company. (thanks to Phil Dougan and Greg Varhola for the

idea)

**D) isite:** Continue your iSite: 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.

**Track Change Over Time:**

Visit the same spot in as many different conditions and times of day and season as possible. Record your observations each time, noting differences and changes in both the site and your perception of it.

**Imagine Being One of the Organisms That You Observe:**

Imagine how you perform each of the functions that you and your species need to survive. What are you made of? What and who do you depend on to survive? Who depends on you to survive? What roles do you play in your ecosystem throughout your life? What is your special niche? What are your special adaptations that make you fit best in your niche?

**Look for Patterns in Nature:**

Look for and record patterns in nature that you can see, hear or feel using words and sketches. Patterns might include structural angles, edges, distribution systems or gradients. Guess the function that each pattern might serve.