NATURE OBSERVATION EXERCISES

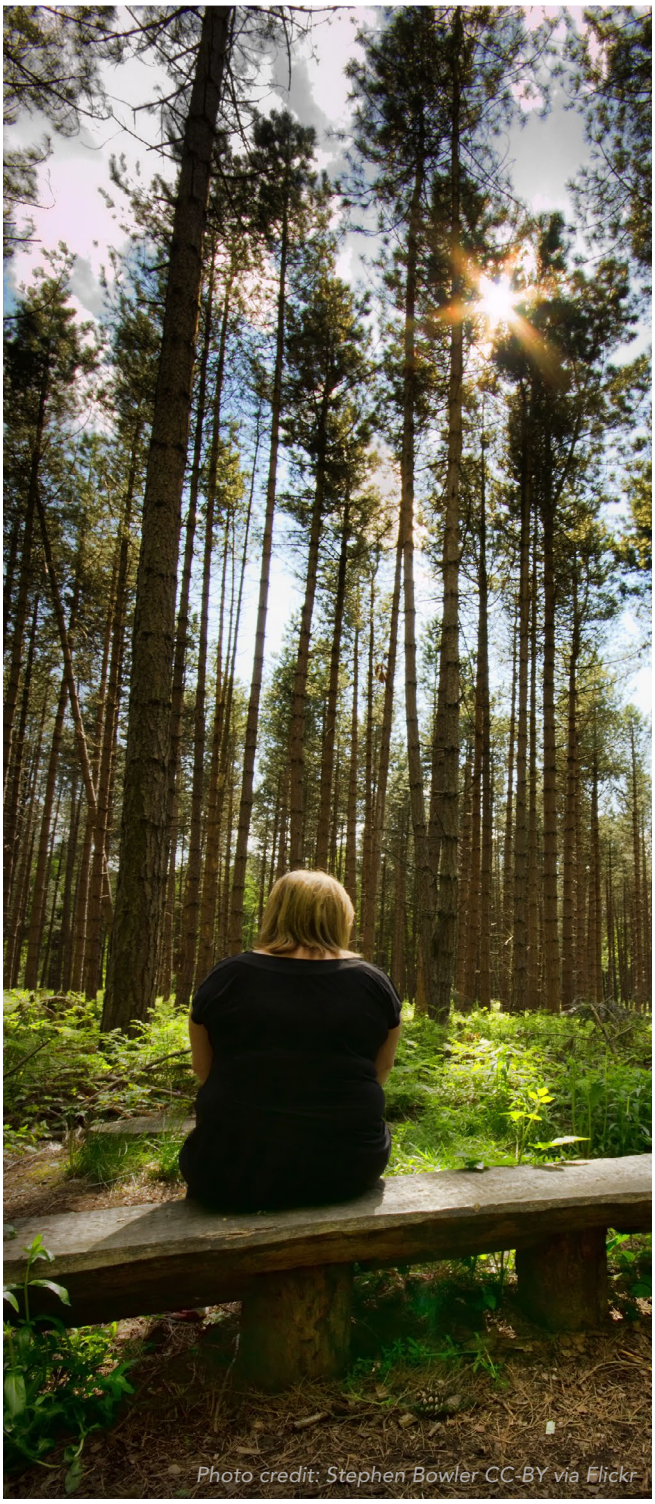
The following exercises are intended to help you develop nature observation skills. Use them in an outdoor location - it might be your backyard, a landscaped patio on your campus, a wooded grove in a park, or untouched wilderness. It doesn't matter; there is life to discover everywhere. Bring a journal or sketchbook for drawing or taking notes.

You can do these exercises on your own, or as a group. If you go as a group, make sure everyone spreads out to minimize distractions and the temptation to converse with each other during the observation period. Then reassemble at an appointed time and place and share your observations with each other.

Basic Observation "Sit and Stay"
The most basic way to observe nature is to simply sit in a natural setting for 25-30 minutes without doing anything (not even taking photographs). The first ten minutes pass relatively easily, as there's a lot of new stuff to look at. The next ten minutes often get challenging; you may find your mind wandering and your body feeling fidgety. Stick with it. If you push past those distractions and remain in place for the rest of the time or even longer, it's amazing what is revealed to you in this deeper state of observation. Describe or sketch your observations.

Some questions you can ask yourself during or after your experience might be:

- What operating conditions (or context) are organisms contending with in this environment?
- What are some adaptations (behavioral or physiological strategies) you see as a response to the context?
- What relationships do you see?
- Do you notice any patterns?



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More Nature Observation Exercises:

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

Blind Drawing | Sit in front of an organism or natural object. Draw a quick sketch of the object (don't worry if you "can't" draw). Now draw the organism or artifact again, but this time look only at the object and not at your paper while you draw. Try to make your pen follow the path that your eyes take. Compare drawings; did you discover anything new the second time?

Make Believe | Imagine being one of the organisms that you observe. Imagine how you perform each of the functions that your species needs 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 adaptations make you fit best in your niche?

Sound Map | With your journal or paper in front of you, mark an "X" at the center of the page to represent yourself. Then close your eyes and listen. Create a symbol on your page to represent each sound that you hear. Make a map of the sounds you hear all around you, in all directions and whether human caused or not. Are the sounds related or responsive to each other? This is also an interesting exercise to do at night, when some organisms become more active.

Translate What You See | Create a technical 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 an engineering drawing.

Finding Function | Explore your environment looking for examples of nature performing functions that human designs also seek to perform. Some examples: Moving water, filtering (air, water, etc.), adhesion, cleaning, transforming waste, storing carbon, communicating.

Zooming In | Mark off a square foot (approximately 0.1 sq meter) of ground in any natural habitat, using string or sticks or a hoop. Look at it from a standing position for 5 minutes. Notice what you see. Then kneel down and observe it from that vantage point for 5 minutes. Notice the things that you missed while standing. Next, lie on your belly or lean closer to explore the area in detail. Look at it as if you were an astronaut on a strange planet. If you find something that captures your attention, such as an insect, worm, or plant, observe it as long as you want, then explore somewhere else in your square. Stay with your exploration for at least 10 minutes.

Source Notes: Nature observation activities like these have been a staple of environmental education for decades. These variations were co-developed for biomimicry education over many years of collaboration between the Biomimicry Institute and Biomimicry 3.8 (formerly the Biomimicry Guild).