

Sample Lesson Plan:

Math in Nature Scavenger Hunt

I typically introduce this unit with videos like, [Nature by Numbers](#), some [Vi Hart on Spirals](#), and/or a lesson on kinds of symmetry via [square dancing](#). Whichever principles we've been working with, we take to a botanical garden or some equally diverse ecosystem and split into teams of 2 or 3. These teams then create scavenger hunt clues by finding, drawing, and explaining 10 instances of mathematical principles like: rotational symmetry, mirror symmetry, translation, dilation, fractals, fibonacci numbers as illustrated by flower, leaves, seeds, branches, roots, rocks, etc. When the the class regroup, teams swap their lists and have to find another team's instances of the same mathematical concepts.

Math: Students learn basic vocabulary for identifying and describing mathematical patterns, while gaining an appreciation for the magic of math to unite disparate natural object, learning to recognize underlying growth patterns and their benefits.

Eco-literacy: Students learn to look closely and differentiate between different kind of plants and gain a fundamental respect for the intelligence of the natural world.