

EDCP 552-26 Week 3: Mathematics outdoors activities sheet

Activity: If you are able to go outdoors -- to a backyard or park, schoolground, balcony, garden, woods, beach, streamside, etc. -- that is the best place to do this activity.

However, if that is impossible, you can also do this activity indoors, looking at living, growing things like plants, pets, other humans, spiders, birds through the window, etc. Do what works for you in your circumstances!

Drawing living beings and human made things: You'll need some paper and drawing materials (pencil and eraser, or coloured pencils, or charcoal sticks (highly recommended if you'd like to try something fun!), or conte crayons, or brush and ink, or ... your choice). You might also need a clipboard, or a piece of cardboard, or a book as backing for your paper as you draw.

(a) Find yourself a spot to sit and observe the living beings and human-made things around you.

Living beings may include all kinds of plants and trees, humans, non-human animals (like squirrels, mice, otters, seals, coyotes, raccoons, fish, whales, ...), birds of any kind, insects and spiders. Even the rocks and mountains may be thought of as living beings, very old and moving much slower than we do.

Human-made things are the things people made -- everything from buildings, fences and benches to cars, books, any kind of human-made object.

Take five minutes to settle in your sit spot and watch what is happening around you.

(b) Then take about 20-30 minutes to look at and sketch at least three living beings, and three human-made things. You could do this on your own, or alongside students, family members or friends.

Remember, you are *not* being judged on your sketching ability -- this is not a how-to-sketch class! This *is* an opportunity to observe things closely, and connect your eyes and hands as an observer of the world around you. Take time, look at things with care, and sketch what you are observing as a record of your observations.

(c) While you are observing and sketching, and once you are done, take some time to think about *line* and *angle* in the things you observed.

- What kinds of lines and angles did you see in most living things? How about in most human-made things? Are there typical lines and patterns that show up in living things vs. human-made things? Any exceptions to this?
- Why do you think these patterns exist (if you notice patterns, that is!)
- How might you use close observation and drawing or sketching to help your students learn about lines and angles?
- Are there ways to experience lines and angles through whole-body movement or large body motions outdoors? In relationship to the living world?