

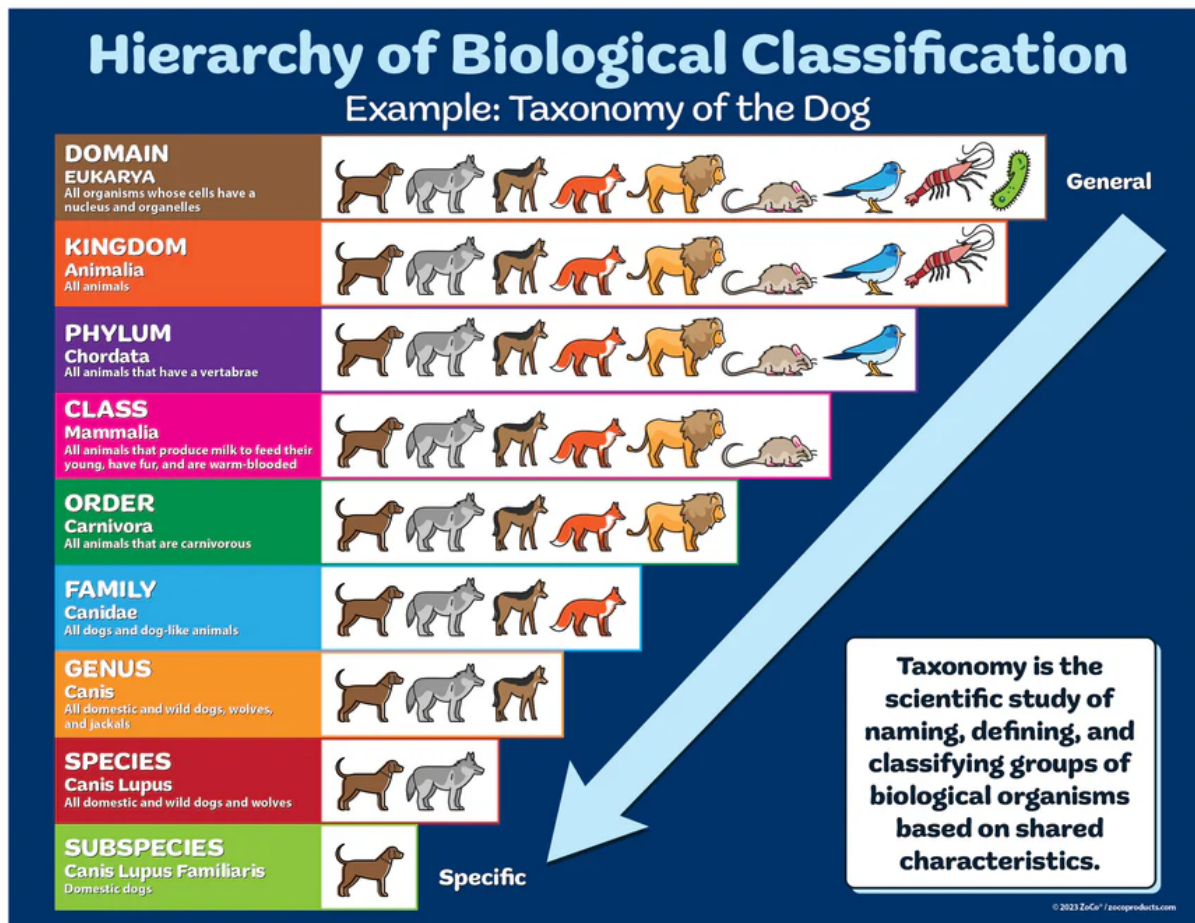
Lesson 1 - Species Count Part 1 - Plot Sample (1.1)

Purpose - Use a random plot sample to compare species found in a field. (Teacher - Gather tape measures and string loops)

Warm up: Discuss - What are the reasons to classify species with great detail? We call this Taxonomy.

USE Google PHOTO "Lens" to know all plant names (or PlantNet)

Explain - Classification (2.1.3) of species and Taxonomy - What was traditionally used and what can be used today (camera id apps). Learn and use the proper names for species in the courtyard (common and scientific names).



1. Write - come back inside and go over the parts in class and set up the notebook for filling in the parts

- Background - write some observations or ideas about how a human built structure might impact surrounding areas (living and nonliving things).
- Research Question

Example - How does _____ impact _____ biodiversity when comparing _____ to _____ in the courtyard at Poudre High School?

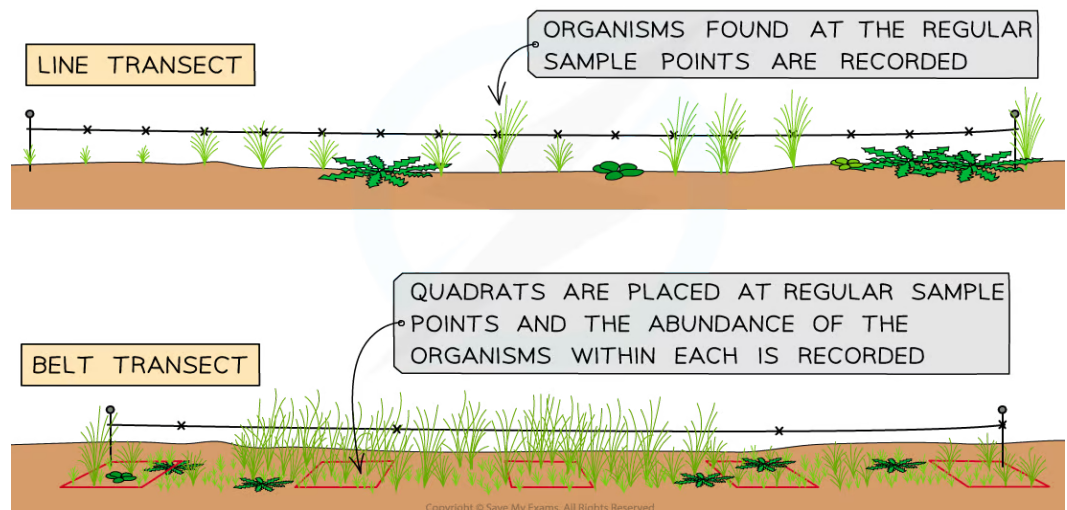
(Rubric - **states** a focused research question that addresses the chosen environmental topic or issue.)

2. Observe outside first

- Look for - plants, sun/shade, soil temperature other clues about your research
- Take photos of plants on a white background (ID inside as a class)
- Explain the Belt Transect idea

3. Set up for Data Collection - Method (write up the exact steps you did)

- Outside “green space” - Number of Species (plants) in a 250 cm² - Courtyard from south wall to the north wall
- Review - Data Collection techniques - Belt Transect (see below)
- Set up Data Table for at least 6 locations - you determine distance apart (4 column - location, soil temperature, species found, % cover estimate)



- Outside expectations - hands, voices, listening

- Sample 6 measured plot locations (4 min per location) - Demo first together
- Photos/Draw - Creating a key for all species might help.

4. Write/discuss - What is **biodiversity**? (Copy into your notebook)

- Soapstone Prairie Example. **Soapstone Bioblitz** - we will refer to Soapstone throughout this unit and I suggest you memorize it as a “case study” for future connections on IB exams.

BIODIVERSITY LEVELS

- ❖ ECOLOGICAL/ECOSYSTEM
 - ❖ different habitats, niches, species interactions
- ❖ SPECIES
 - ❖ different kinds of organisms, relationships among species
- ❖ GENETIC
 - ❖ different genes & combinations of genes within populations



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4. Homework -

- Read and take notes (vocab, concepts, diagrams) for 3.1

5. Watch - [From Ants to Grizzlies](#) - 18 min (an Eco "rockstar" - E.O. Wilson - decent read Anthill) -

- Discuss -
 - i. Give a short video summary - topic, main idea, support details. The world is an amazing place...I want to make sure you know that throughout the year.

- i. How did they measure biodiversity?
- ii. What are Wildlife Corridors?