

Instincts for Survival/Biohike

Design a Species Lesson Plan

Learning Goals:

- ✓ Students can describe distinguishing characteristics of different groups of organisms, and use these characteristics to classify these organisms
- ✓ Students can communicate how different species rely on each other to survive and succeed
- ✓ Student will develop an understanding the biotic and abiotic interactions that happen every day within ecosystems to support biodiversity

Part 1: Research

Have students research information on species classification. [Here](#) is a great resource about classification to get you started.

Key words to research/word bank:

-Species, speciation, classification (system), taxonomy, interaction, adaptation, biotic, abiotic

Guiding questions:

- 1) How are different living things organized/classified into groups?
- 2) Why do you think people decided to classify living things?
- 3) What classification groups do humans fall into (e.g. kingdom, phylum, class, etc.)

Part 2: Design

Once students have an understanding of basic classification, use the provided worksheet to design a new species. Ensure that students are being thorough in their thoughts and communication process.

Part 3: Extensions

- 1) Have students create a good copy of their animal drawing and create a gallery
- 2) Have students create a diorama of an ecosystem that includes the species
- 3) Do a community walk to record local species found (urban or greenspace), back in class, find the classifications for 3 different species (e.g. bird, plant, mammal)
- 4) Create a food web that incorporates the new species
- 5) Extension questions:
 - a) Create a food web that includes all interactions in the species ecosystem
 - b) Imagine your species was introduced into a new environment, as an invasive species, how might it affect local biodiversity?
 - c) How might your species be affected by climate change?
 - d) What resource might your species provide for people, how could it be harvested sustainably/honourably?

CREATE YOUR OWN ANIMAL

Your Task:

Now that you have an idea of how species are classified, create your own species. You will need to support the classification of your species as well as outlining its ecosystem interactions, so take your time with this!

Once you have an idea, answer the following questions.

Name your new species: _____

Scientific Name for your species: _____

How would your species be classified and why?

What country can your species be found in? What type of habitat does your species live in? Why does it live in this habitat?

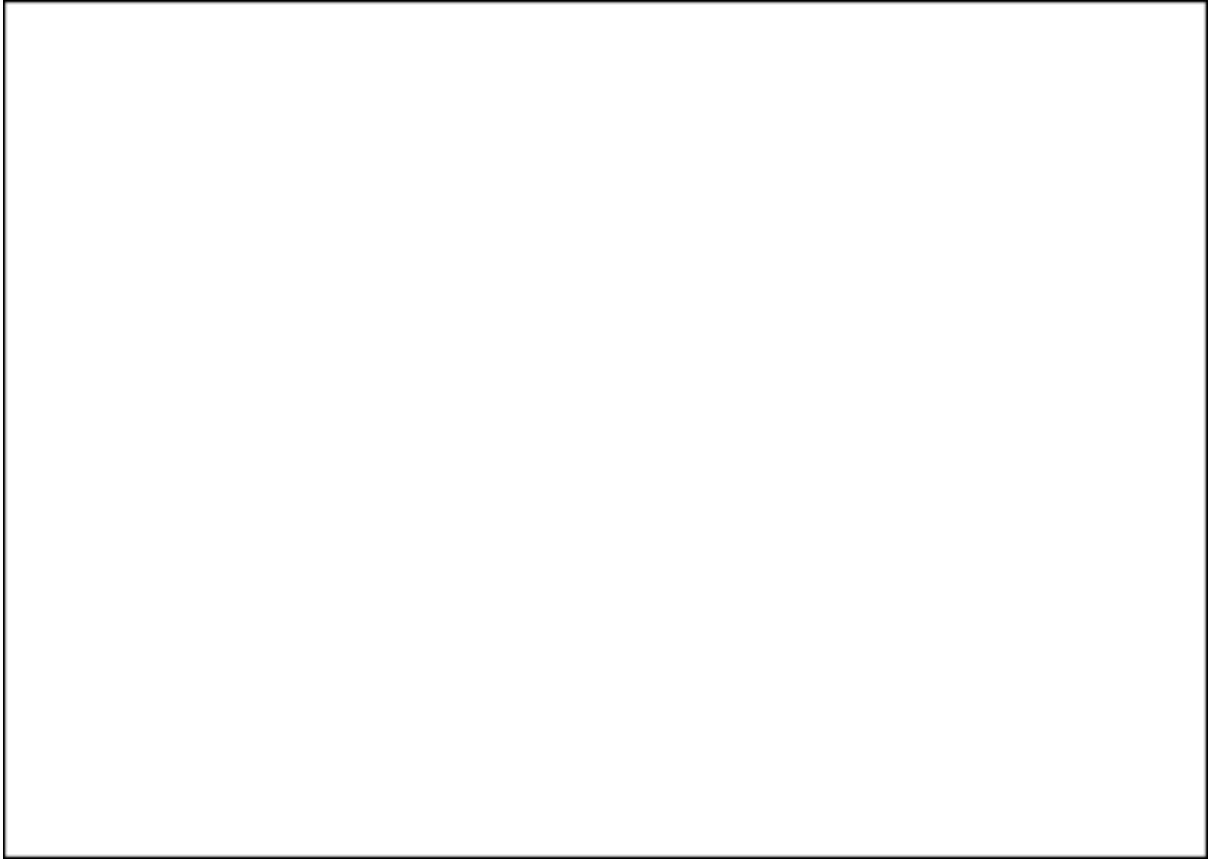
What physical or behavioural features (adaptations) does your organism have that allow it to thrive in its habitat?

How does your species interact with other biotic elements in its habitat (e.g. predators/prey, symbiotic/parasitic relationships, etc.)

How does your species interact with abiotic elements in its habitat (e.g. water, shelter, sunlight, rocks, air, other, etc.)

What are some interesting facts about your new species?

Create a scientific drawing (includes labels) of your organism:



Create a food chain that includes your species.

