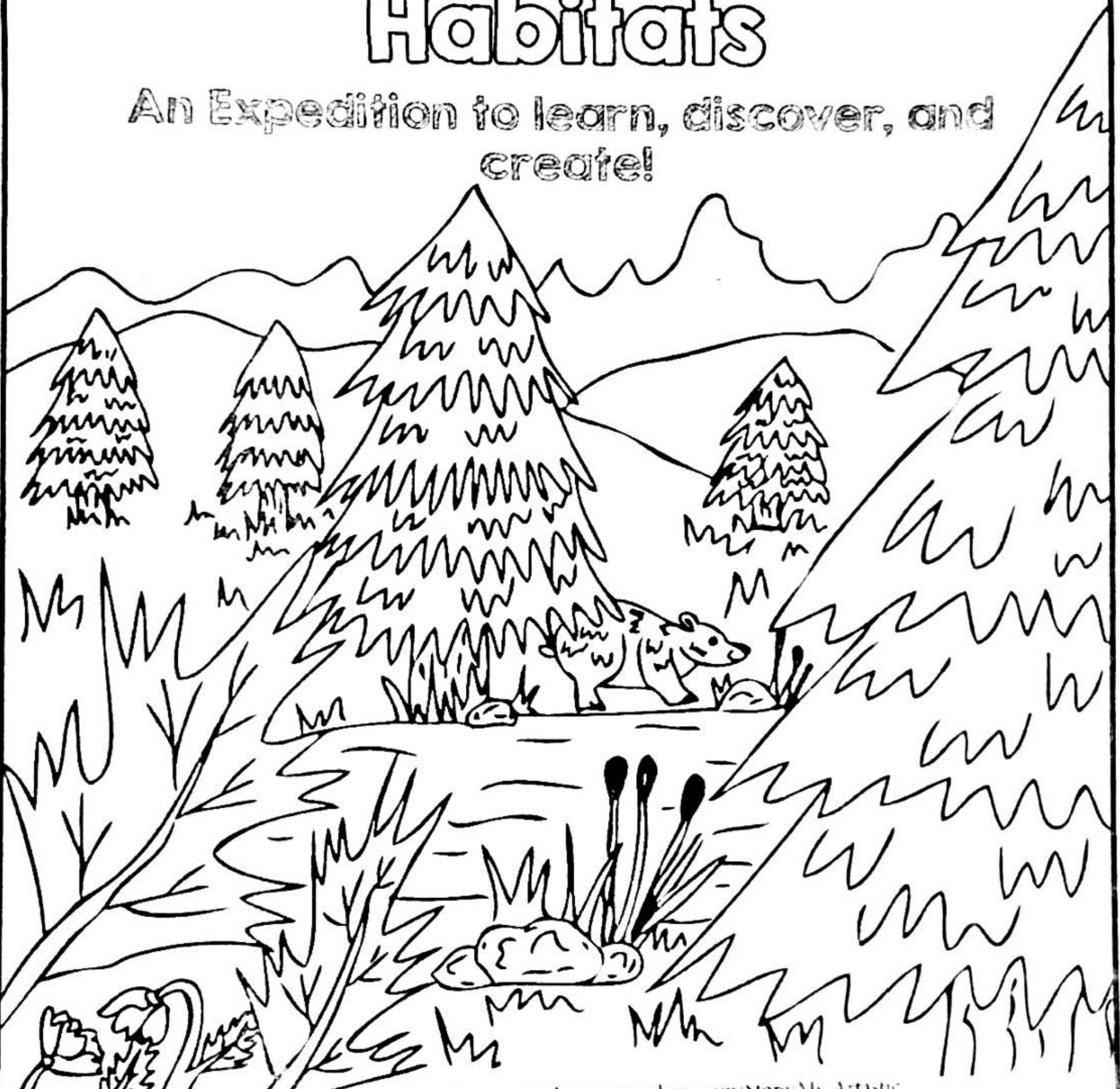


Name: _____

Animals and their Habitats

An Expedition to learn, discover, and create!





The Beginning... You've been hired!

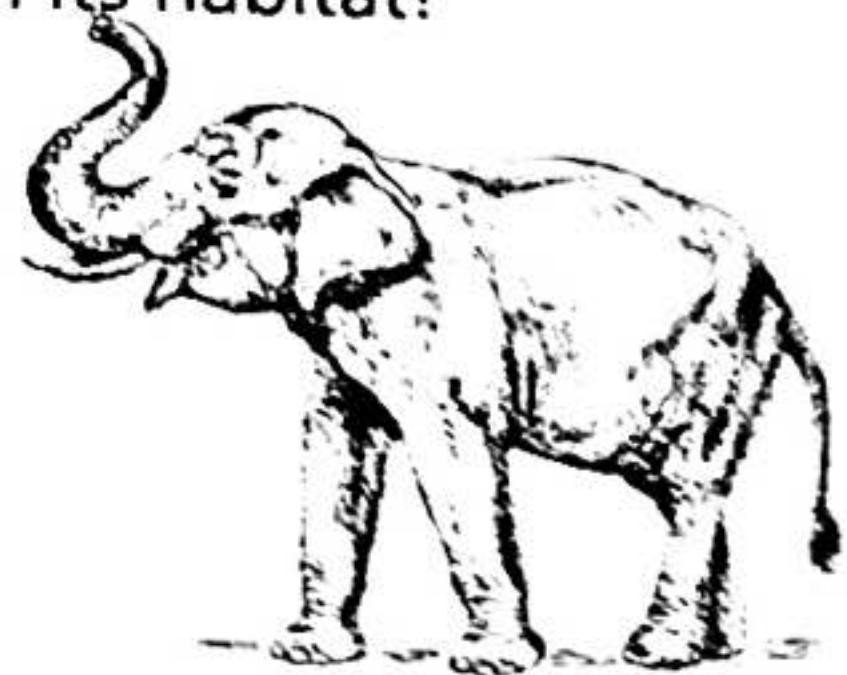


You are have been hired to design a dream habitat for an animal of your choice for a new zoo being built by the X-Animal Company. As a researcher and to design a perfect habitat for your animal, you will need to become an expert on that animal. You will need to use a variety of technologies to research as much as you can about that animal and record facts you find.

In this project, you will research and write journal entries about expeditions, collect data on the animal, its habitat and predators/prey, write an informational report about the animal and its habitat, and you will design and build a small scale model habitat for your animal.

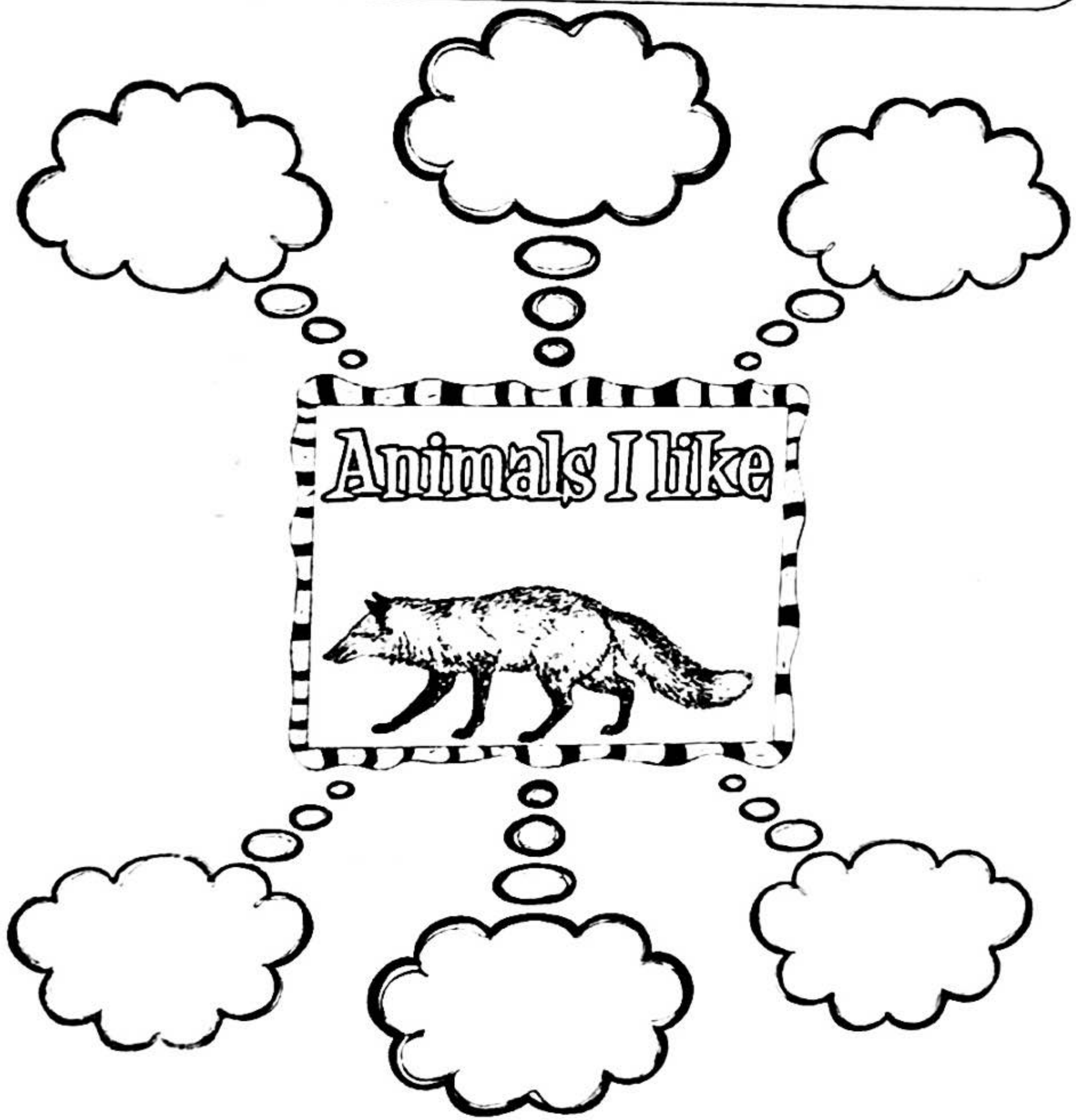
Questions to think about during the project and to answer in your journal entries:

- Where does my animal live? What is that habitat like?
- What are some special adaptations my animal has for survival in its environment?
- What are predators and prey to my animal?
- What are interesting facts about my animal?
- What elements are specific to my animal's habitat? (ex: types of trees and plants, other animals, type of terrain and weather)
- What does my animal eat and how does it get its food?
- How does my animal survive weather in its habitat?



Brainstorm Animals

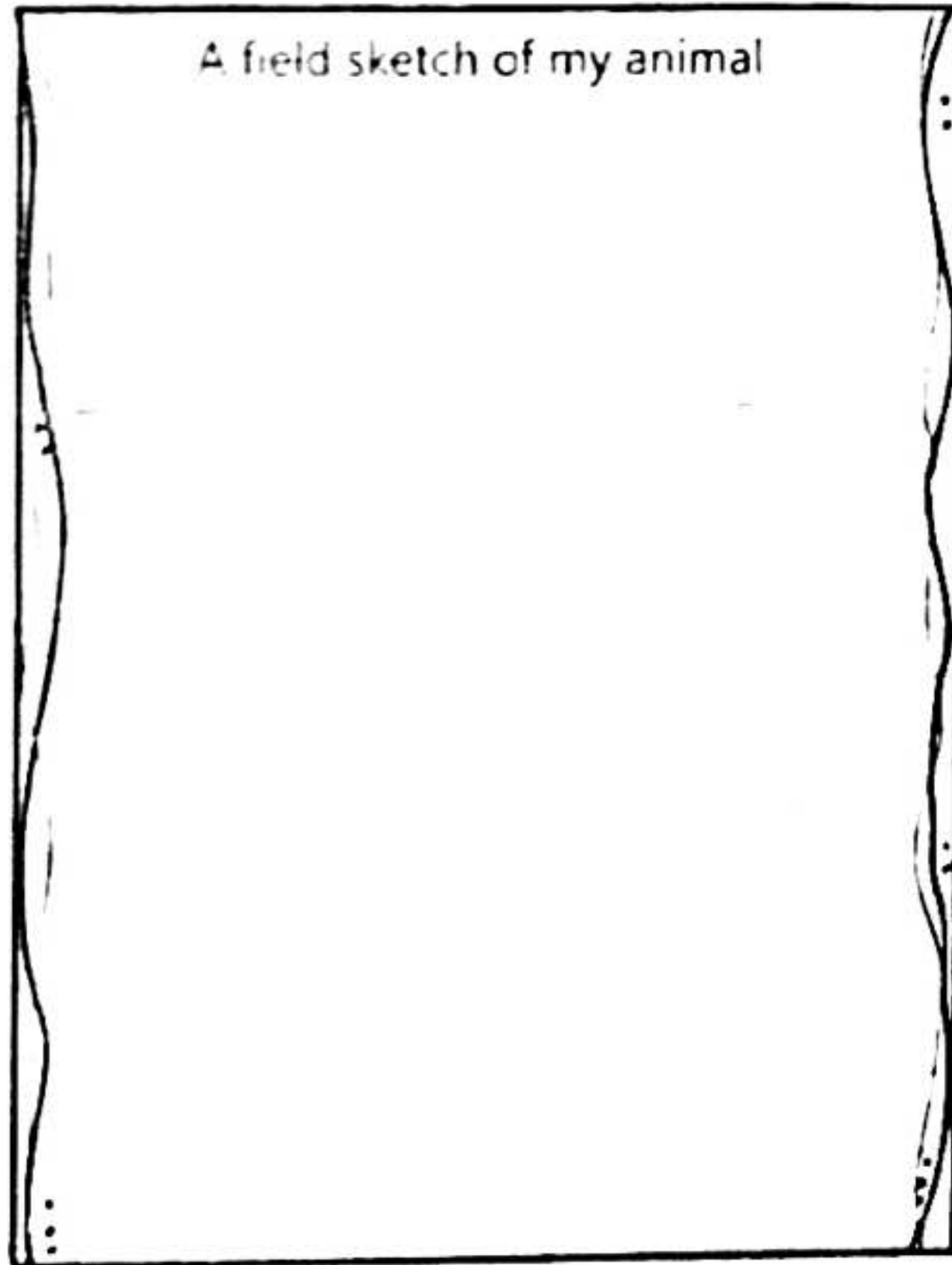
Brainstorm a variety of animals! From this brainstorm you will be choosing one of the animals to do. It is best to come up with a lot of options and pick your favorite from it because, for your project, you will only get to do one of these animals and **you will not be able to change it later.**



The Animal I Choose is...

Write name of animal above

A field sketch of my animal



This animal is a:

Amphibian

Bird

Fish

Insect

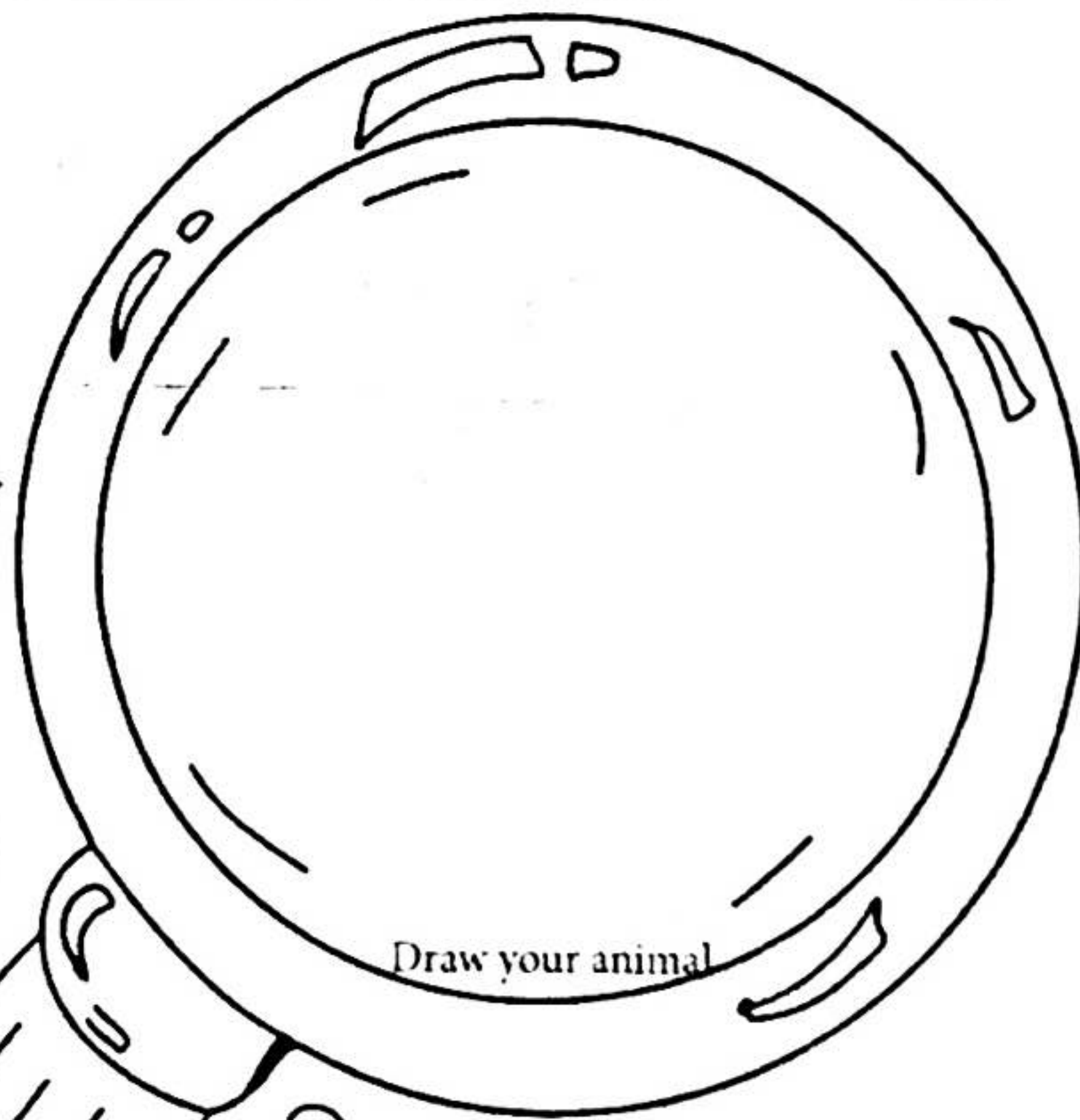
Mammal

Reptile



I chose this animal because...

I'm designing a habitat for...



3 questions I have about my animal:



Before the Expedition, I Know...

Below, record all that you already know about your animal. Try your best to come up with at least one thing for each box. Do your best and think back to all the times you've seen this animal, heard about or read about this animal.



Characteristics	Habitat	Prey
Predator(s)	Adaptations	Interesting Facts



The First Expedition

You have chosen your animal and now it is time to go on your first expedition into the field to observe your animal in nature for the first time. Imagine you are a researcher and in your expedition you see your animal in its environment. You need to collect the basic facts on this animal to use as a starting point in your research to help you dig deeper for information later.

Use books and other technologies to find basic information on your animal.

Facts About My Animal

Color of my animal: _____

Approximate weight: _____

Height/Size of my animal: _____

Fur/Feathers/Scales: _____

Lifespan: _____

Where it lives: _____

What are key characteristics you see on your animal?

Three interesting facts about my animal:

- 1) _____
- 2) _____
- 3) _____

Habitat Exploration Expedition

You and your team fly out and explore your animal's habitat for the first time. On this trip you are to find out all the information you can about your animal's habitat to better prepare yourself for when you create your design for a habitat for the zoo.

In class, research using books and technologies about your animal's habitat. Record your data and findings below.

Data Collected:

Type of Habitat: (ex: arctic tundra, tropical forest, ocean, freshwater wetland, etc)

What is the weather like in this habitat?

What are seasons like in this habitat?

What does the environment look like in this habitat?

3 key characteristics I observed on my expedition to my habitat are:

1)

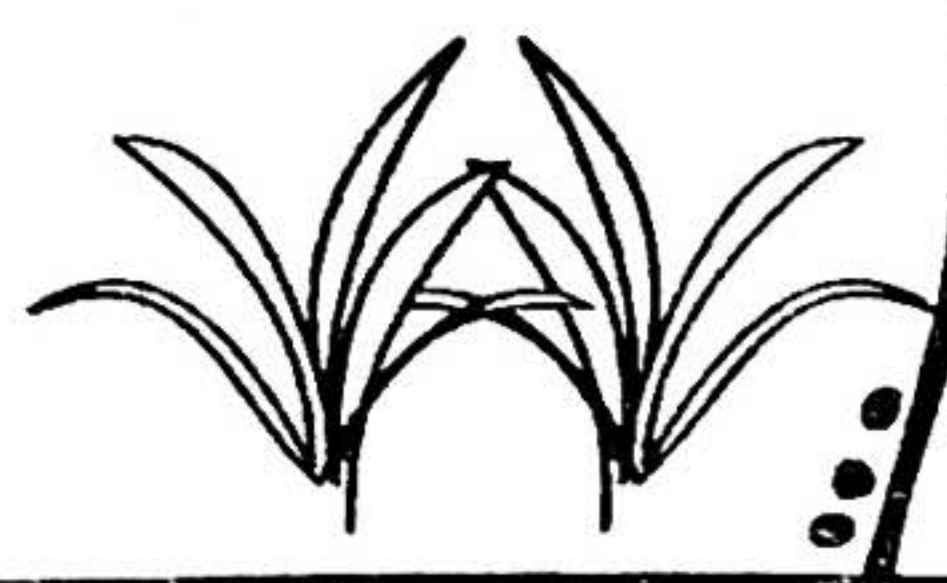
2)

3)



Field Sketch: Habitat Exploration

Below, draw what you see on your first expedition to explore the habitat. Please be accurate in your drawing to properly convey what you saw to your bosses. Take your time and use books and technology to help you find reference images to help you draw exactly what the habitat looks like. Please add color as well.





The Second Expedition

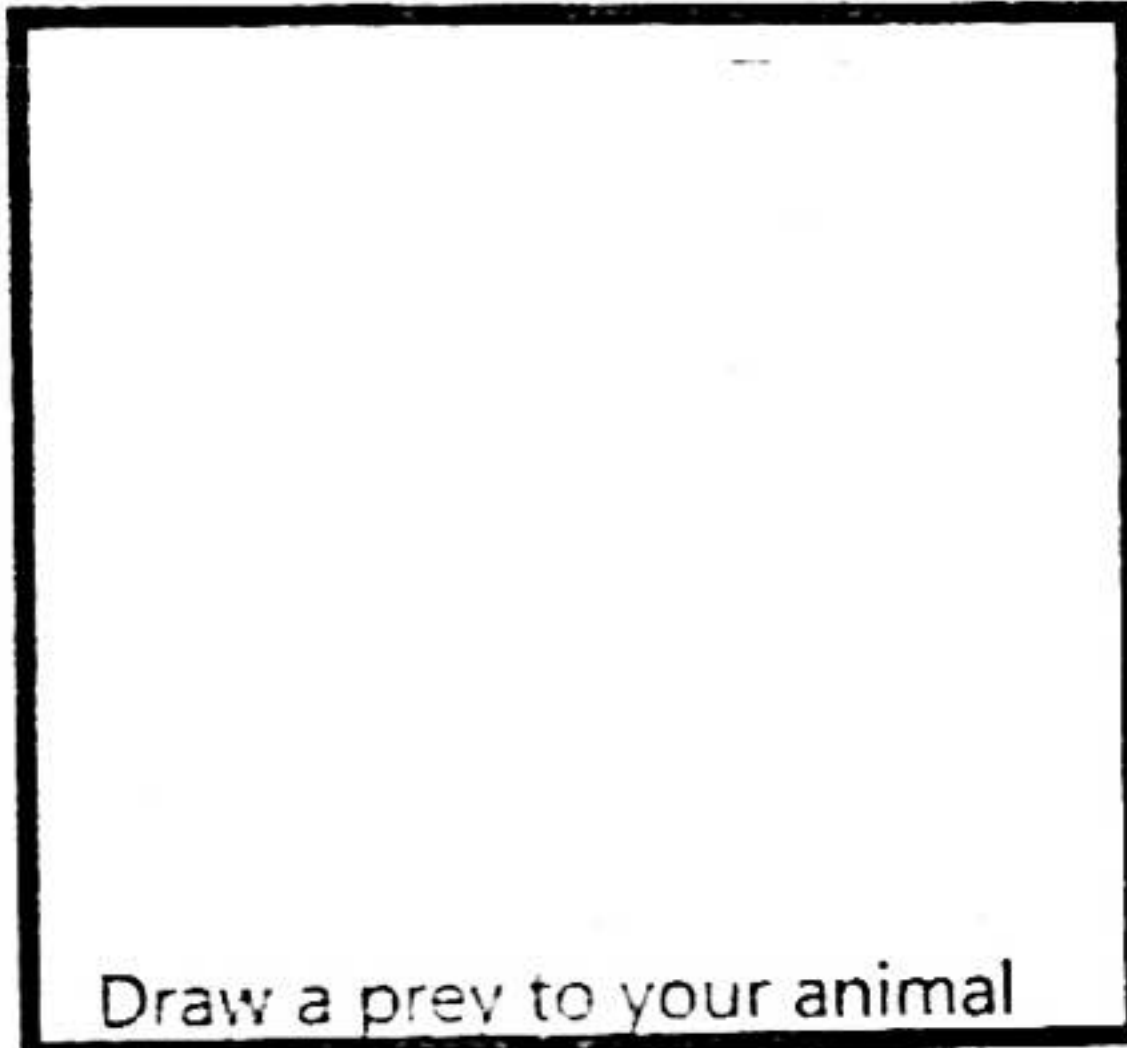


You and your team head back out to the habitat and search for your animal. You spend a week in camouflage outfits to watch your animal in secret to observe the predators and prey to your animal.

In class, research using books and technologies about your animal's predator's and prey. Create lists below.

The Prey:

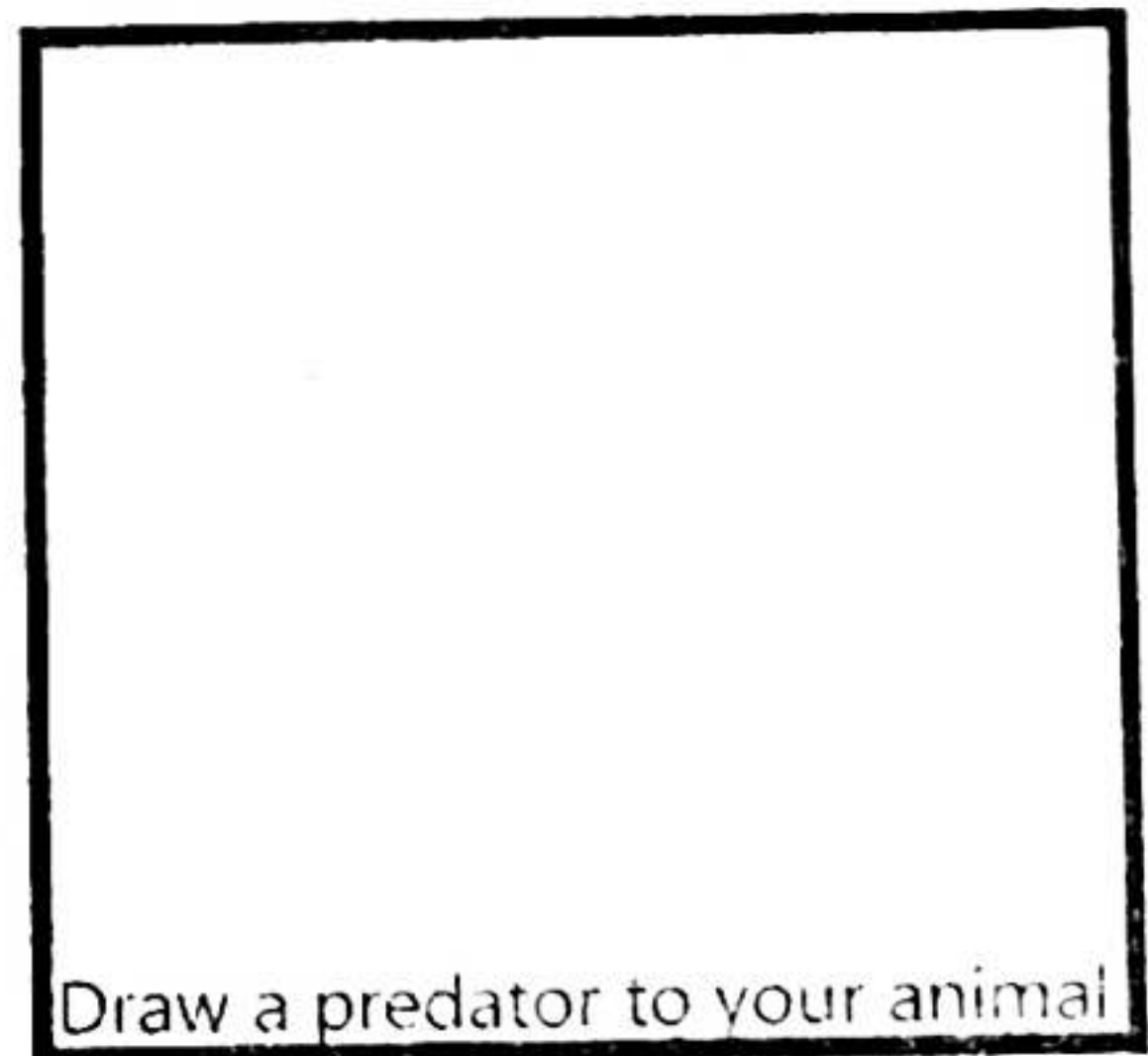
Which animals are prey to your animal?



Draw a prey to your animal

The Predators:

Which animals are predators to your animal?



Draw a predator to your animal

The Third Expedition: Adaptations



On your third expedition, you and your team set out to observe any adaptations that are unique to your animal that help it survive in its habitat. What unique adaptations does your animal have? What kind of skin? Body parts? Abilities it has? Personality? Unique characteristics?

Research in a variety of sources about adaptations your animal may have and record the data below.

1)	2)	3)
4)	5)	6)



What I Know NOW About My Animal

Below, record all that you have learned about your animal.

Once you have filled it out, flip back to your "Before the Expedition" page to compare and see what you have learned since the beginning.



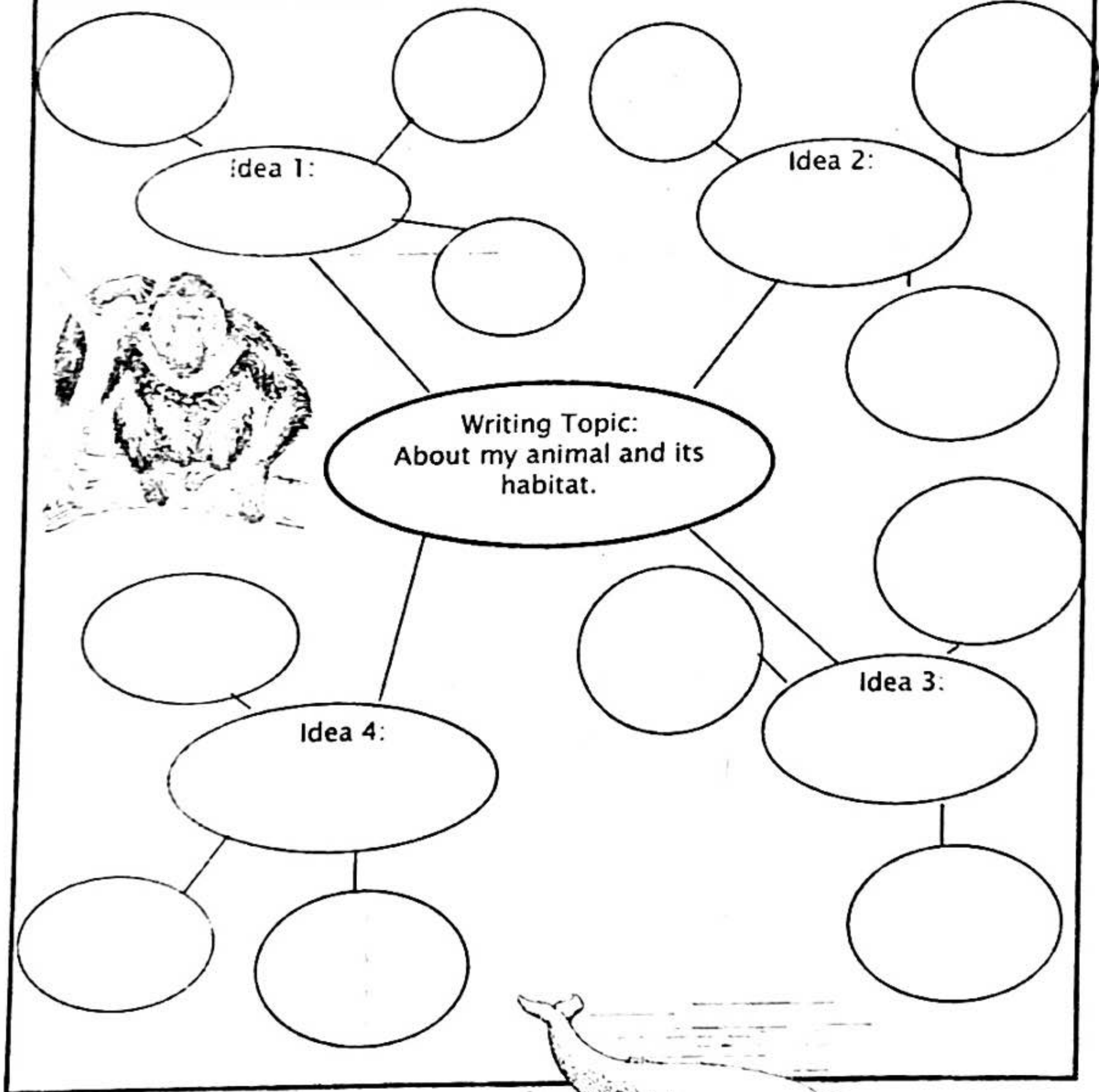
Characteristics	Habitat	Prey
Predator(s)	Adaptations	Interesting Facts

Report on My Animal and Its Habitat

BRAINSTORM



Draw and Write in a brainstorm to generate ideas surrounding your writing topic.



Report on My Animal and Its Habitat

PLANNING SHEET

Introduction: Write the first lines that will introduce your topic. Here you need to hook your reader (which is the X-Animal Company).

Paragraph 1: Write ideas for your first paragraph. Include details of what you will write about.

Paragraph 2: Write ideas for your second paragraph. Include details of what you will write about.

Paragraph 3: Write ideas for your third paragraph. Include details of what you will write about.

Conclusion: Write the ending lines that will conclude your write. Here you need to summarize what you wrote about above.

The Presentation: Model Habitat

You and your team have collected all data you needed on your animal and its habitat and have written your informational report. It is time to use your knowledge of your animal to design your model habitat that you will show to the X-Animal Company to convince them that you have the perfect, dream habitat for your animal of your choosing at their new zoo.

Create a model habitat for the dream zoo enclosure for your animal. Money is not an issue with X-Animal Company so be creative and use your imagination. Try to use your knowledge of how your animal exists in nature and what its habitat is like to help you create the perfect design.

The Steps: Creating the Model

Step 1: Draw

Using the drawing page, sketch a detailed drawing of your model. This will help you sort out all your ideas and get creativity flowing prior to building.

Step 2: Plan Your Materials

Plan out what materials you will need for each terrain and element in your habitat and where you will find it in real life to use on your model.

Step 3: Read the Rubric

Read the rubric to see how you will be graded on this project and to ensure you meet the requirements.

Step 4: Build

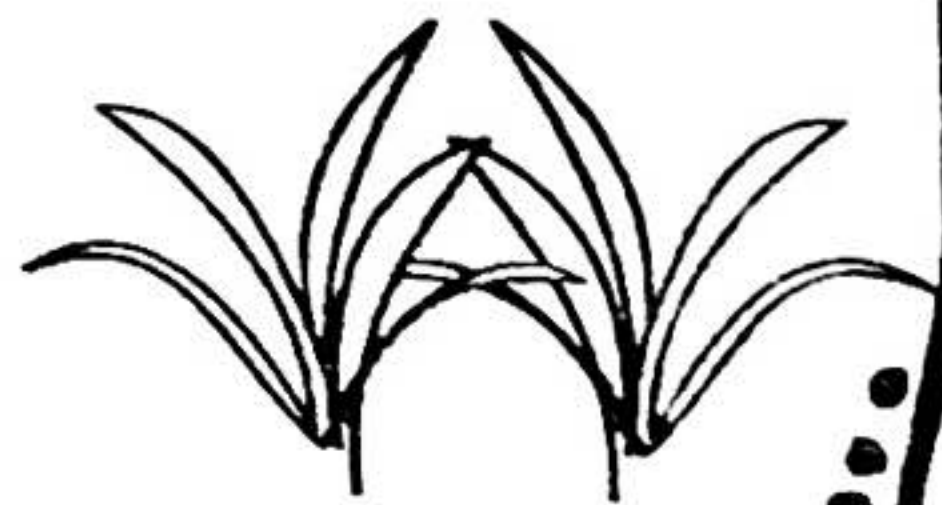
Build your model either on a flat, hard piece of cardboard and cut to a desired shape or build inside a shoebox. Be creative and don't limit yourself to the box.

Use any materials you wish to build a small scale model of a dream habitat for your animal. You need to re-create what you learned about in your model to ensure the habitat will be suitable for your animal. Also make sure to have sources for your animal to find food, water and shelter.

This project will require problem solving to learn how to design and build it.

The Presentation: Draw Your Model Habitat

Below, draw what your model might look like. This sketch is a way to work out your idea before you begin to create it. All creators (artists, designers, architects) need to work out their ideas and edit them before they invest their time and money on the real project so they do not waste it or make design errors. Include lots of details in your drawing to help you when you build.



The Presentation: Materials Needed

Like any artist or designer, you need to know what materials will best suit your model. As you are making a small model, you will need to think about what materials can mimic things in real life habitats. What material will mimic a pond full of water? What will you use for plants? What about weather? What material for all the types of terrain? Where will you find it?

Materials for My Model

Below, list terrains or elements you wish to create in your habitat, the material that can mimic or be used for that element and where you will find it.

1) Terrain/Element in habitat: Material: Where to find it:	2) Terrain/Element in habitat: Material: Where to find it:	3) Terrain/Element in habitat: Material: Where to find it:
--	--	--

4) Terrain/Element in habitat: Material: Where to find it:	5) Terrain/Element in habitat: Material: Where to find it:	6) Terrain/Element in habitat: Material: Where to find it:
--	--	--



The Presentation: Rubric

Below is the rubric for which the X-Animal Company will use to score your presentation to see if it meets their requirements of your design being a dream design for an animal of your choosing in their new zoo. Please refer to it to make sure you full fill all their requirements.



Small Scale Habitat Model

Evaluation Criteria:	Outstanding/Always Evident	Frequently Evident	Evident some of the time	Evident time to time	Value
Execution of Projects: Care of appropriate style, craftsmanship, skill, attention to detail, composition, design.	Student offers complete consideration of style and quality. Habitat has lots of detail. Student shows understanding of habitat.	Student considered style and quality. Has executed project with good skill. Has considered design. Mostly shows understanding of habitat.	Some quality of work evident. Sometimes shows evidence of considering composition and design. Some understanding of habitat.	Student does not present best quality or skill. No attention to detail. Little evidence of considering design. Does not know the habitat.	/10
Creativity & Originality: Originality and innovation of work, evidence of experimentation, unexpected discoveries.	Student shows original ideas work, outstanding experimentation, and has lots of new discoveries.	Student frequently presents original work. Has some experimentation, and some new discoveries.	Student some times presents original, innovative work. Experiments some of the time.	Student, time to time, presents original thought and innovative work. Little experimentation. Little discoveries.	/5
Habitat meets the Needs of the animal: Has the student created a design and has added elements to the habitat to full fill needs of their animal? (food/water/shelter)	Student carefully met all the needs of their animal and has created a dream habitat. Has considered food/water/shelter.	Student met most of the needs of their animal and has created a dream habitat. Has considered food/water/shelter.	Student met some needs of their animal and has created a dream habitat. Has not considered food/water/shelter.	Student had trouble met all the needs of their animal.	/10
Responsibly: Work habits, attitude, effort, completeness of work.	Student always works hard/stays on job, worked enthusiastically toward goals. Project finished with maximum effort with a positive attitude.	Student frequently works hard/stays on job. Project almost finished with maximum effort but could have pushed further.	Student sometimes works hard but needs to focus more on the work. More effort needed in creating their art.	Student will, t me to time, work hard/stay on job. Project finished with little effort.	/5
				Total:	/30

