Habitat Needs for Endangered Animals

Grade 2

Introduction

Starting with Colorado State Standards, Common Core, NGSS, and the Nature of Science, this activity was designed using the 5E Instructional Model to give students the opportunity to think like scientists. Using the real-world phenomenon of endangered animals, students are able to investigate a problem they feel is worthy of solving. In this Problem-Based Learning environment, students will develop an understanding of habitats and how habitats effect animals living among it.

This is an investigation and not about right answers. The lessons encompass many subjects including: art, writing, math, engineering, technology and social studies. These activities will take approximately **14 days to complete**, approximately **1 hour a day.** Evaluations and assessments will occur throughout the instructional process through teacher observation, student interviews, journals, projects, and final presentations.

Objectives

- Provide evidence of what animals need to survive.
- Provide evidence for what a habitat is.
- Valid evidence of different types of habitats.
- Be able to create a real habitat.
- Be able to locate real habitats outside.
- Provide evidence of why animals are endangered.
- Draw conclusions and be able to generate ideas and ways to save habitats and endangered animals.

Guiding Questions

1. What is a habitat?
2. How can habitat effect an animal's survival?

Standards Addressed

2nd Grade Science (CCSS and Colorado Standards)

Standard 2: Life Science
1. Organisms depend on their habitat's nonliving parts to satisfy their needs
2. Each plant or animal has different structures or behaviors that serve different functions

2nd Grade Reading, Writing and Communicating (CCSS and Colorado)

Standard 1: Oral Expression and Listening
1. Discussions contribute and expand on the ideas of self and others
2. New information can be learned and better dialogue created by listening actively

Standard 2: Reading for All Purposes
2. Fluent reading depends on specific skills and approaches to understanding strategies when reading informational text

Standard 3: Writing and Composition
2. Exploring the writing process helps to plan and draft a variety of simple I informational texts
3. Appropriate spelling, capitalization, grammar, and punctuation are used and applied when writing

Standard 4: Research and Reasoning
1. Reference materials help us locate information and answer questions
2. Questions are essential to analyze and evaluate the quality of thinking

2nd Grade Math Standards (CCSS and Colorado Standards)

Standard 1: Number Sense, Properties, and Operations
1. The whole number system describes place value relationships through 1,000 and forms the foundation for efficient algorithms

Standard 3: Data Analysis, Statistics, and Probability
1. Visual displays of data can be constructed in a variety of formats to solve problems

2nd Grade Social Studies Standards (CCSS and Colorado Standards)

Standard 1: Geography
1. Use geographic terms and tools to describe space and place

NGSS

2. Interdependent Relationships in Ecosystems

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats. Emphasis is on the diversity of living things in each of a variety of different habitats.

Science and Engineering Practices

- Developing and Using Models
  - Develop a simple model based on evidence to represent a proposed object or tool.
- Planning and Carrying Out Investigations
  - Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question.
  - Make observations to collect data, which can be used to make comparisons.
- Scientific Knowledge is Based on Empirical Evidence
  - Scientists look for patters and order when making observations about the world.

Disciplinary Core Ideas

- LS4.D: Biodiversity and Humans
  - There are many different kinds of living things in any area, and they exist in different places on land and in water.

Structure and Function

- The shape and stability of structures of natural and designed objects are related to their function(s).

<u>K-2. Engineering Design</u>

- K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or toll.
- K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Science and Engineering Practices

- Ask questions based on observations to find more information about the natural world.
- Develop a simple model based on evidence to represent a proposed object or tool.

Disciplinary Core Ideas

- ETS1.A: Defining and Delimiting Engineering Problems

    - A situation that people want to change or create can be approached as a problem to be solved through engineering.
    - Asking questions, making observations, and gathering information are helpful in thinking about problems.
    - Before beginning to design a solution, it is important to clearly understand the problem.
- ETS1.B: Developing Possible Solutions
    - Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communications ideas for a problem's solutions to other people.

Crosscutting Concepts

- Structure and Function
    - The shape and stability of structures of natural and designed objects are related to their function(s).

Nature of Science

Science is planning and carrying out investigations
Scientific knowledge is based on empirical evidence
Scientific knowledge is open to revision in light of new evidence
Science is a way of knowing
Scientific knowledge assumes an order and consistency in natural systems
Science is a human endeavor
Science addresses questions about the natural world

Materials Needed

- Chrome Books or Computers
- Clipboards
- Colored Pencils
- Coloring Sheet Frame (attached)
- Earthworm habitat supplies that will be selected by students
- Earthworms
- Index Cards
- Loose-leaf Paper
- Magnifying Glasses (Optional)
- Markers
- Pencils
- Poster Paper
- 'Research Guide' Worksheet (attached)
- Sticky Notes
- Student Science Journals or Notebooks
- Technology to show online videos to whole group
- Vocabulary Wall (attached)
- World Map Worksheet (attached)
- Variety of books about habitats (with non-fictional pictures if possible)
    - Suggested List:
        - *Animal Habitats,* by Julie K. Lundgren
        - *A Forest Habitat* (Introducing Habitats), by Bobbie Kalman
        - *A Rainforest Habitat* (Introducing Habitats), by Molly Aloian and Bobbie Kalman
        - *A Desert Habitat* (Introducing Habitats), by Kelley Macaulay and Bobbie Kalman
        - *The Artic Habitat* (Introducing Habitats), by Molly Aloian and Bobbie Kalman
        - *A Grassland Habitat* (Introducing Habitats), by Bobbie Kalman
- Books about endangered animals (with non-fictional pictures if possible)
    - Suggested List:
        - *Endangered Sea Turtles* (Earth's Endangered Animals), by Bobbie Kalman
        - *The Watcher: Jane Goodall's Life with the Chimps*, by Jeanette Winter
        - *If Sharks Disappeared*, by Lily Williams *Will We Miss Them?:* Endangered Species (Nature's Treasures), by Alexandra Wright
        - *Whale Trails, Before and Now*, by Lesa Cline-Ransome

    - *The Buffalo Are Back*, by Jean Craighead George
- Books about biomes and ecosystems

Differentiation

ESL:
Have visuals along with all vocabulary. Take time through videos and stories to discuss new ideas.

Support:
For students who need additional support, help them choose an animal and identify the habitat for their animal before passing out the 'Research Guide' worksheet.

Enrichment:
For advanced students or those who finish early, have them work on the side to find and write down interesting facts about habitats or endangered animals. Tell them they can share their findings with the class when everyone is done with their studies.

Assessments

See page 23 for formative and summative assessment information and page 24 for rubrics.

Optional Lesson Extensions

Zoo Fieldtrip:
Study the animal habitat of your endangered animal (or an animal similar) at the local zoo. What do you notice?

Expert Visitor:
Invite a conservationist, park ranger or zoologist to speak about endangered species and habitats.

Birdhouse Engineering:
Study what birds need in their habitat. Study one species of bird and investigate what type of birdhouse meets their particular needs. Have students design a

prototype birdhouse with cardboard and present it.
https://www.teachengineering.org/activities/view/wpi_birdhouse_act_joy

Design Challenge:
Have students design a fictional animal. It can have eyes on it's back or a mouth on it's claw, the possibilities are endless! Encourage creativity. They will also need to design the animal's habitat. Does it live on the moon? Have them build their creature out of classroom supplies like pipe cleaners and cardboard. They can also build something from the habitat. Lastly, have them write a paragraph sharing details about their creature.

Prepare in Advance

- Invite local conservationist, park rangers or zoologist to come speak and/or attend presentation day.
- Send an email to parents:
    - Tell them about this research study and when its starting
    - Let them know classroom volunteers would be very helpful during the two research days
    - Ask them to keep an eye out for an email requesting help for gathering the supplies needed to build the earthworm habitats (the list of supplies will be made by the students at a later time)
    - Invite them to presentation day.

Day 1: Engage

‘Introduce the Phenomenon’

Materials
Technology to show online video
Large Poster Paper
Markers

Opening
Introduce the lesson by discussing: How to think like a scientist.
For scientist, it is about the investigation, not about right answers.

Peek Their Interest
Tell the students they get to be scientist and investigate a phenomenon that will be presented in a video we’re about to watch. Let them know after the video there will be a whole-class discussion about what we see and hear.

(This video is used to help peek students’ interest and curiosity, to help them recall background knowledge and to encourage them to start asking questions about the phenomenon.)

Video: Endangered species. 6:39 minutes long. https://www.youtube.com/watch?v=Osr_xJWEVOM

Background Knowledge
After the video, have a whole class discussion of what they saw and heard, do a K-W-L chart. *Throughout all lessons, allow students sufficient time to offer their ideas.*

Small Group Collaboration
Write on the board: What do humans need to survive?
Students work in groups to come up with a list of 3-5 things needed to survive.
The list is then written on the board by the students.
Direct the learning: Work as a whole group to put the ideas into similar categories. Ask them if they see any similar ideas on the board. Use different colored markers to direct their ideas into categories: Food, Shelter, Space and others if needed.
(With all discussions and formative assessments, all answers are accepted as the students are developing an understanding of the phenomenon.)

Closing
Close the lesson plan by peeking their interest once more. Tell them you have bad news, they will never get to see a special animal that was on the endangered list and is now extinct! (*It's okay to throw in some sad emotions.)*

The Tasmanian Tiger has been an extinct species since 1986 and was last seen in 1936. It lived in many areas including in Australia, on the island state of Tasmania.

Video: Tasmanian Tiger (also known as Thylacin). 42 seconds long.
https://www.youtube.com/watch?v=6vqCCI1ZF7o

The big picture: Share with the students the big picture of this phenomenon study. They will think like scientists and research endangered species. Tell them to keep an eye out during our studies for an endangered animal they would like to research and learn more about.

Homework:
Flipped classroom assignment. Watch video: How endangered species and habitats are connected. 4 minutes long. https://www.youtube.com/watch?v=7k8CcAU2Lt0

Day 2: Explore

Explore 'Survival and Habitat'

Materials

Science journals/notebooks
Pencils
Markers
Vocabulary Words hung on wall (attached)
Index Cards
Variety of books about habitats
Clipboards
Loose-leaf lined paper
Magnifying Glasses (optional)

Collaboration

Present the question: What do animals need to survive?

Students work in groups to discuss this question and write down their ideas in their science journals. Have a whole group discussion to compare and contrast to the discussion yesterday about what humans need to survive. Write the student's ideas on the board as they share them. *There are no wrong answers, as this exploration of habitats is just beginning. (Food, shelter from weather and predators, water, a place to raise their babies, space, and air clean to breath.)*

Vocabulary

Discuss the word wall. Encourage students to help with the definitions. When a student finds a definition, have them write it on an index card, sign their name and hang it next to the word on the vocabulary wall. It's okay to have more than one index card with each word.

Research

Have students work in pairs to read through some books about habitats. Tell the students to write down some interesting facts about habitats in their science journals.

Draw conclusions

Write on the board: What is a habitat?
Have the pairs of students work for a few more minutes in the habitat books. Then, have them write about it in their science journals. *There are no wrong*

*answers, as this exploration of habitats is just beginning. (Animals live in a **habitat**, which is what we call the natural home of that animal.)*

Investigate

Hand out clipboards, paper and pencils. Take the students for a walk outside to find what lives in the habitat area around your school. Bring magnifying glasses if you have them. Encourage students to look carefully. Many creatures call the schoolyard home. It is their habitat.

(If you have a creek or trees near by, take the students to explore it).

Homework:

Video: Wild Kratts, Exploring Animal Habitats. 20 minutes long:
https://www.youtube.com/watch?v=L_9MDKj5Wrk

Day 3: Explore

Explore 'Types of Habitats and Class Pet'

<u>Materials</u>
A variety of books about habitats
Science journals or notebooks
Chrome books
Clipboards
Loose-leaf paper
Pencils

<u>Collaborate</u>
Right on the board: Are all habitats the same?
Have the students work in pairs and read through the habitat books again and decide on an answer to share with whole group. (*It can be 'yes', they all have shelter, food, water, etc. Or the answer might be 'no,' there is the desert, rainforest, etc.) (There are no wrong answers.)*

<u>Draw Conclusions</u>
Have the pairs of students to find different types of habitats. Have a whole class discussion about different types of habitats. Have the students write about the different habitats in their science journals.

<u>Habitat Game</u>

Students work in pairs to play this online game. Smithsonian Science Education Center. Habitat Game, match animal with habitat. https://ssec.si.edu/habitats

<u>Class Pet</u>
Tell the students they get to build the habitat for our new class pet! An earthworm! Work in groups to read the article on what earthworms need to survive and figure out what they need in their habitat.
(Article attached, "What do Earthworms Need to Survive?")
(I'm doing a class pet of an earthworm from a local bait shop. You can do a ladybug or anything easy.)

I will have students grouped by desk arrangements/groups and each group will make a worm habitat to put in the middle of their desks to watch and care for.

Engineering
Have students design a plan for the class pet/s habitat. Hand out clipboards, paper and pencils. Ask the students to make notes of what is needed for the earthworm's habitat. Then decide as a whole group, what main things are needed, however, each small group can make their worm habitat a little different.

Work as a group and use a projector to read through the article: How to make a worm habitat.
Wiki-How to Make a Worm Habitat:
https://www.wikihow.com/Make-a-Worm-Habitat

(You can bring in their requested supplies or send an email out for parents to send in the supplies. Don't forget to the worms! The students will build the habitats as soon as all of the supplies have arrived.)

Homework
Gather supplies for earthworm habitats.

Day 4: Explore

Explore “Animals in Habitats”

Materials
Items to build worm habitats
Worms
Science Journals or Notebooks
Markers
Sticky Notes
Animal Habitats, by Julie K. Lundgren

Build Earthworm Habitat
If you have the supplies, go ahead and have the students build the earthworm habitats! If not, do it when all supplies have arrived.

Collaboration
Have students use their science journals from yesterday, where they wrote down different types of habitats. Have them work in groups to decide a COMMON LIST of the different types of habitats (compare and contrast their original list). Remind them there are no wrong answers. Just produce a list together to share with the class. I will give them two examples to get going: Ocean, Rain Forest…

Draw Conclusions
Have students share the habitats they decided on. Help them join similar habitats like ‘Jungle’ and ‘Rain Forest.’ After final titles of habitats have been decided, put them across the board. Then pass out sticky notes and have students think about which animals they might see in the habitats. Have them draw a picture of the animal on the sticky note, spell the name the best they can and stick it under the correct habitat title.
(Habitat examples: Ocean, Desert, Forest, Grasslands, Marine, Rain Forest, Artic, Tundra, Rivers, Lakes, Wetlands, etc.)
(Under water there can be habitats such as shallow-water or deep-water zones, and that a combination of many things—including temperature, soil, available food, rainfall, and geographic location—can create a habitat. So try not to deny any habitat title suggestions.)

Guided Detail
Find a way to discuss Biomes verses Habitats.
Habitat: is an area an animal lives.
Biome: the major plant and animal communities in the world.

The 5 Major Biomes of the World:
Forest
Desert
Ocean
Grassland
Tundra

Read Aloud

Animal Habitats, by Julie K. Lundgren
(Real pictures. Introduces characteristics of animal habitats including deserts, oceans, and tropical rainforests.)
(During the read aloud, use this time to stop and discuss things with the students to further their exploration on the habitats.)

Homework

Video. 5 Most endangered Species 2017, 4:23 minutes long.
https://www.youtube.com/watch?v=0_Lv2pujheQ

Day 5: Explore

Explore 'Endangered Animals'

Materials
Technology to show online video
Markers
Will We Miss Them?: Endangered Species, by Alexandra Wright
Frame coloring sheet (attached)
Colored Pencils

Investigate
Video: Why do animals become endangered? 2:23 minutes long.
https://www.youtube.com/watch?v=YOeFqvsUebc
(You will need to pause the movie and read the short statements for them).

Discuss as a whole group what they saw and felt during the movie.
Maybe write on the board some causes of animal population decline: pollution, deforestation, hunting, etc.)

Read Aloud
Will We Miss Them?, by Alexandra Wright
(During the read aloud, use this time to stop and discuss things with the students to further their exploration on the habitats.)

Create
Have the students start thinking more in-depth about the endangered animal they would like to know more about. Have them use the attached frame coloring sheet to draw a picture of the endangered animal in its habitat.

Homework
Video. Wild Kratts: How to protect endangered species. 14:08 minutes long.
https://www.youtube.com/watch?v=Kq4-Vzk8XeY

Day 6 and 7: Explore

Explore 'Research Animal'

Materials
Worksheet 'Research Guide' (Attached)
Worksheet 'World Map' (Attached)
Volunteers if possible
Chrome Books
Books on the endangered species if possible
Pencils
Colors

Volunteers
This would be a great time to have your classrooms volunteers come in and help guide students through the tricky vocabulary and complex ideas. Be clear to the volunteers that the students find their own conclusions. The volunteers are welcome to guide, but not give information/conclusions.

Investigate (2 days)
Have students pick an endangered animal to research.
(Research may be in pairs, groups or individual.)

Tell the students the goal: figure out more about the endangered animal and what the endangered animal is missing in their habitat to cause their numbers to drop. Tell them they will present their findings on presentation day.

Model: I will complete the research worksheet aloud. With a book or online article about the endangered animal, I will go through each question and model finding the answers and writing neatly.
I plan to use this book in the model: Endangered Sea Turtles, by Bobbie Kalman

Hand out the Research Guide worksheet (attached).

Online research tools for students: Animal Planet. A list of endangered species and short article for each.
http://www.animalplanet.com/wild-animals/endangered-species/about-endangered-species/

Show and talk about the Presentation Rubric with them so they know the big picture.

Geography

World-map (attached). Work with students to help them decide where on the world map the endangered animal lives. Have them color in that area.

Homework

Research more about your animal at home, through books from the library, online articles and videos. Write down what you learn and bring it to class.

Day 8: Explore

Explore 'Design Presentation'

Materials

Chrome Books
Technology to show online video

Technology

Have the students build a visual using their Chrome Books. The collages created need to include:

1. A picture of the endangered animal
2. Pictures and words about what the animal needs in their habitat

Model: Have the whole group watch a video on how to use the collage app. Answer any questions.

Collage App: http://pic-collage.com

Remind the students that the collage will be used in their presentations.

Give them a copy of the Presentation Rubric.

Homework

Have students practice giving their presentation, using their completed Research Guide and Collage.

Day 9 and 10: Explain

'Show What you Know'

Materials

Technology to view collages
Student's completed work
Presentation Rubric (attached)

Presentations

Invite parents, administration, zoologist, conservationist, park rangers, etc. Get a varied and great audience!

Students will share their finding by reading aloud their completed 'Research Guide' and collage. They can also share their map and the picture they drew.

Have the students complete a rubric on their presentations.

Include a day of practice if needed.

Leave time for questions after each presentation.

Day 11 and 12: Extend

Extend "How to help this animal"

Materials
Science Journals or Notebooks
Loose-leaf paper
Pencils
Persuasive Writing Rubric (attached)

Writing
Have students write a persuasive piece about their endangered animal (or they can pick a new endangered animal).

- Tell us what animal you are writing about.
- Tell us what you think is causing the animal to be on the endangered list.
- How can we help save this endangered animal?
- Share a possible solution.

Share the Persuasive Writing rubric with them.

Model: I will complete a persuasive writing piece, step-by-step for the whole group.

Give the students a copy of the rubric.

Editing
This a two-day project to allow time for revisions of the draft and to write the final product.

Have the students complete a rubric on their work.

Share
If time, allow a chance for those that want to read their pieces aloud. Hang their work up somewhere.

Day 13 : Closing

‘Animals Saved’

Materials

Whale Trails, Before and Now, by Lesa Cline-Ransome
Science Journals or Notebooks
Pencils

Collaboration

Ask the students if they found animals during there research that used to be endangered and are no longer endangered because of conservation efforts.

Read Aloud

Whale Trails, Before and Now, by Lesa Cline-Ransome

Share this article with the students: 15 Animals no longer on the endangered animals list:
https://www.worldatlas.com/articles/15-animals-who-are-no-longer-endangered.html

Discuss reasons why these animals have been saved. *(Hard work of conservationist).*

Synthesis

Have the students write a narrative piece in their journals about their learning experience over all with this study. They can include what they liked or didn’t like, how they felt the performed with different aspects, etc.

Evaluate

'Assessments and Rubrics'

Assessments

Evaluation and assessment can occur at all points along the continuum of the instructional process, through teacher observation, discussions, student interviews, journals, projects, and presentations.

Guiding Questions

1. What is a habitat?
2. How can habitat effect an animal's survival?

Formative Assessments

Science Journal pieces
Observations
Discussions, whole group and one-on-one
Assess during activity questions each day to determine if each student has attained understanding of concepts. Is each student showing understanding of the major concepts? Here are the questions presented throughout this study:

- What do humans need to survive?
- What do animals need to survive?
- What is a habitat?
- Are all habitats the same?
- What do earthworms need to survive?
- What are different types of habitats?
- Why do animals become endangered?

Summative Assessments

Presentation Rubric:
The presentation rubric is attached. It is designed for the student to complete one and for you to complete one.

Persuasive Writing Rubric:
The persuasive writing rubric is attached. It is designed for the student to complete one and for you to complete one.

Presentation Rubric Name: ___________________________

Goal	1★	2 ★	3 ★	4 ★	Comments
1. I completed my Research Guide					
2. I shared everything on my Research Guide					
3. I completed my collage					
4. I talked about 5 things on my collage					
5. I spoke loudly					
6. I made eye contact					
7. I am proud of my work					

Persuasive Writing Rubric

Name: ______________________________

Must Include:	1 ★	2 ★	3 ★	4 ★
Provide an introduction.				
Share your opinion: Tell us why you think this animal is endangered.				
Give a supporting detail: Tell us what is the problem in this animal's habitat.				
Share your opinion: How can we help save this endangered animal?				
Give a supporting detail.				
Provide a conclusion.				
Neat handwriting.				
Capitals and periods.				

Definitions

For Teacher Reference

Adaptations: animals change to fit in a changing environment.

Biome: major plant and animal communities in the world. Examples of biomes: tundra, forests, grasslands, oceans, and deserts. The earth is also one big biome.

Community: the plants and animals of one area that interact with each other.

Conservation: the protection of things found in the natural world.

Deforestation: the clearing or cutting down of forests.

Ecosystem: plants, animals and microorganisms and the nonliving environment interacting as one unit.

Endangerment Levels:

1. Vulnerable Species: species under threat.
2. Endangered Species: species in severe decline.
3. Critically Endangered Species: almost extinct.
4. 'Threatened' is not a level, but is used to encompass all three levels.

Extinct: when all of that type of animal or species has died out.

Habitat: the natural environment of an animal, plant, or other organism.

Pollution: when gases, smoke, and chemicals are released into the environment.

Population: the total number of that type of animal.

Species: used to classify living things.

Vocabulary Wall

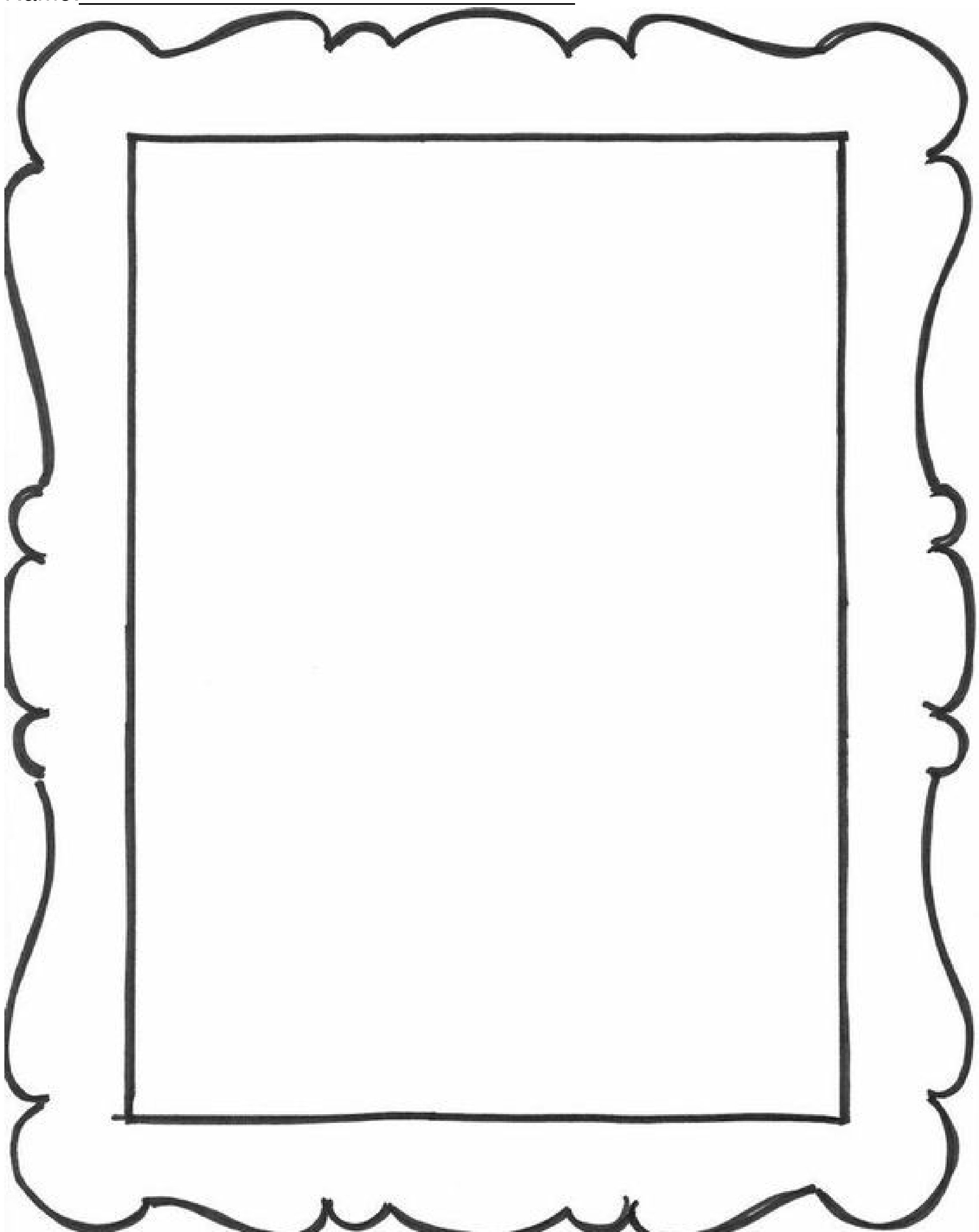
Adaptations
Biome
Community
Conservation
Critically Endangered
Deforestation
Ecosystem

Endangered
Extinct
Habitat
Nonliving
Pollution
Population
Species

Threatened Species
Vulnerable Species

Draw a picture of your endangered animal in their habitat.

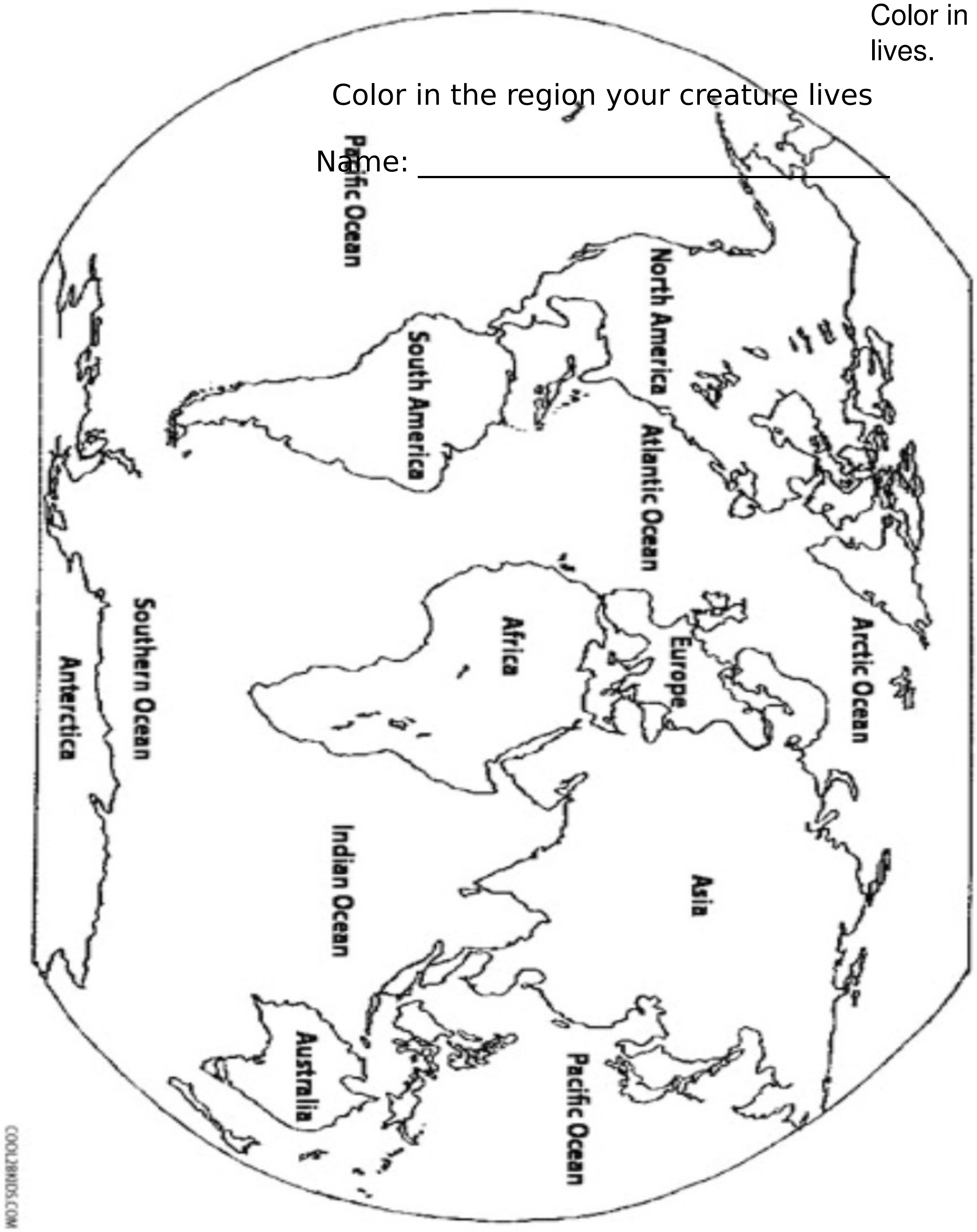
Name:___________________________________



Color in the region your animal lives.

Color in the region your creature lives

Name: ______________________________



What Do Earthworms Need to Survive?

Earthworms are important to the Earth's ecosystem and varieties of them live all over the world. They may be found among the different layers of the Earth's soil, including the surface layer. However, they may also be found in rotting logs, trees or the soil around bodies of fresh water, such as lakes, streams and ponds. Earthworms don't need much to survive, but a few things such as food, proper soil environments and darkness are essential.

Food for Earthworms

Like any animal on earth, worms need food. Earthworms like to stay close to their food supply. Earthworms will eat anything, including decomposed plants and animals. Earthworms eat large quantities of food. In fact, in just 24 hours, one earthworm produces dung (poop) equal to its own body weight.

Earthworm Environment

Earthworms do not have lungs; therefore, they breathe through their skin. For this reason, they must live in a moist environment. If you're starting an earthworm farm, you should make sure their soil is moist to help them breathe. You should also make sure the soil is free of toxins. However, too much moisture, such as a heavy rain, pushes the oxygen out of the soil. This is why after it rains you see earthworms above ground, crawling on your driveway or sidewalks.

They also prefer soil that is a little warm. When the soil freezes, earthworms burrow deeper into the Earth. They then enter a state called aestivation, which is similar to hibernation. During this time, they curl up in a knot to preserve their body temperature and moisture. They enter the same state when the climate is too dry or hot for them to endure.

Earthworms and Light

Sunlight is deadly to earthworms because it dries out their skin. Earthworms must be able to maintain moist skin in order to breathe. Therefore, they prefer to live and reproduce in dark, moist places.

Name: ________________________

Research Guide

____
(Animal)

Level of endangerment: _____________________________________

As of: ____
(The year this information was collected.)

According to: ____

How many of these animals are left: ________________________

As of: ____
(The year this information was collected.)

According to: ____

What does this animal need to survive?

1. ____
2. ____
3. ____
4. ____

Name: ________________________

Research Guide
Page 2

What habitat does this animal live in?

____

Why is this animal endangered? What are they missing in their habitat?

1. ____
2. ____

What do you think about this? What can be done to help this animal?

____

____

____

____

____