

Audience: Grade 1	Duration: 30 min	Department: Education
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Program Description:

As the Minnesota Zoo reimagines education programming, it is critical to understand how to create effective, relevant, and engaging content for our community. Virtual zoo programming offers an opportunity to fulfill our mission with audiences ranging from traditional zoo-goers to traditionally underserved communities near and far.

The Minnesota Zoo received a grant through Woodland Park Zoo to work with an evaluator and several schools throughout Minnesota to identify culturally responsive best practices for delivering virtual programming to guide future program development and implementation. This project will explore and enhance the efficacy of live virtual engagement with animals in fostering empathy for wildlife, while ensuring our future work is inclusive and accessible.

Intended Outcomes

INSPIRE/FEEL	TEACH/LEARN	ACT/DO
<i>Affective (emotions & attitudes)</i>	<i>Cognitive (facts & concepts)</i>	<i>Behavioral (actions & behavior changes)</i>
As a result of this program, my audience will feel...	As a result of this program, my audience will learn...	As a result of this program, my audience will act to...
Feel emotionally connected to animals and nature.	Understand ecological principles that reveal the vital connections between humans, animals, and nature.	Make daily personal choices that benefit wildlife and habitats.

Learning Objectives

Learning Objectives:

- Learners will be able to identify and sort animals into groups according to their physical and behavioral characteristics.
- Learners will recognize that animals have basic needs.
- Learners will understand that habitats provide basic needs that are essential for survival.

Social/Emotional

- Social Awareness
- Relationship Skills

MN Graduation Standards Supported

2009 MN State Science Standards

- 1.4.1.1.1 Describe and sort animals into groups in many ways, according to their physical characteristics and behaviors.
- 1.4.2.1.1 Recognize that animals need space, water, food, shelter, and air.

NGSS Standard

- 1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

PROGRAM SERIES OVERVIEW

	Program A	Program B: Trail Tour
Theme	Wild Habitats	Tropics Trail, Ocean
Animal Encounter	Making observations and identifying adaptations, understand that habitats provide basic needs	Focus on where animals live in the rainforest or ocean and discuss adaptations that help them live there.

PROGRAM A: WILD HABITATS

Activities/Abbreviated Procedure	Location	Outcomes
1. Introduction of staff, overview of logistics and Ice Breaker Activity (10 min)	Earth Classroom	Students will be familiar with the schedule and what to expect for the next couple of weeks.
2. Animal demo (20 min)	Earth Classroom	<p>Student will practice making observations.</p> <p>Students will use their observations to identify body parts unique to ambassador animal.</p> <p>Student will observe and identify the basic needs of animals.</p> <p>Students will understand that habitats provide the essential needs of animals.</p> <p>Student will identify the most suitable habitat for ambassador animal.</p>

<p>3. Habitats and basic needs of animals (10 min)</p>	<p>Earth Classroom</p>	<p>Student will identify the basic needs of animals.</p> <p>Students will understand that habitats provide the essential needs of animals.</p>
<p>4. Conclusion & sneak peek for Trail tour (5 min)</p>	<p>Earth Classroom</p>	<p>Students will make observations of an animal via webcam link.</p>

DETAILED OUTLINE:

Materials needed:

- 2 iPads & laptop
- Rubber fish
- **Movement activity:** Animal Habitat PowerPoint; various plush toys from different animal classification groups (mammal, insect, fish, reptile, amphibians, birds)
- Habitat props (sunglasses, mittens, scarf, hat, umbrella, swimming goggles, swimming flippers)

***Instructor Note: Before program, look at the photos of students' favorite animals. Be ready to share your favorite animal and why.**

INTRODUCTION & ICE BREAKER (10 MIN):

- 1. Start on the laptop in Earth classroom. Connect both iPads but keep the microphone disconnected.**
2. Introduction to instructor and a brief description of the program.
 - Instructor introduces themselves.
 - Hi, welcome back to the Minnesota Zoo! My name is _____. I use (insert pronouns), and I will be your naturalist today. If the group is small, take some time to have everyone introduce themselves.
 - Go over the logistics of participating.
 - Each class will meet with a zoo staff twice, once this week and once next week.
 - Remind them that we can't wait to hear from them today. We want to give everyone a chance to share their ideas and questions so I am going to ask that if you have any questions, you can raise your hand and your teacher will call on you. Remind them to only ask appropriate questions and comments.
- 3. Ice Breaker Activity: Teachers have emailed their students' favorite animals and photos of these animals can be found in the "Students' Favorite Animal PowerPoint" found on basecamp.** Tell students that you really enjoyed learning about everyone's favorite animals. What do they like about their

favorite animals? Invite students to share their answers by having their teachers call on them or type their answers in the chat. Show photos of these animals to give more context in case other students aren't familiar with every animal. **Share with them your favorite animal along with a photo and what you like about that animal.**

4. Ask students if there are any animals that make them uncomfortable. Give space for students to share their experiences and perspectives. What makes them uncomfortable? If they have had prior experiences with these animals, invite them to share it.
5. If there are shared favorite and uncomfortable animals, highlight these animals and point out that all animals are unique and special in their own way. There are millions of animals in the world including student's favorite animals. Some animals like (highlight their favorite animals) live on land, some (highlight their favorite animals) prefer to live in water. Animals find a home that provides them with food, water, shelter, and space to grow and live. Does anyone know the science word to describe an animal's home? (Habitat)

ANIMAL DEMO (20 MIN):

1. **Tell students:** Today I have some friends I'd like to introduce you to, to help us learn more about an animal's habitat.

Introduce students to animal handler staff by spotlighting "Minnesota Zoo_animal handler's name". At this time, you may disconnect the laptop audio and turn on the Animal Handler's iPad microphone. Use the spotlighting feature on Zoom to highlight different cameras as needed. Instructor will be in charge of sharing their screen to share photos, vocabulary words (as needed), and writing down students' ideas.

2. **(Animal handler staff takes over.)** Tell students that you have a friend you'd like to introduce them to and it's important that we make our new friend feel welcomed, safe, and comfortable because each of us have been in a new place with new people before. You can refer to how students felt when they were in a new place that was unfamiliar to them. Before you bring your friend out, ask students what should we do to make sure *our new friend* feels safe, comfortable, and welcomed? Show them how you have set up the space to welcome our friend and what you have done to make the space safe and comfortable.
3. Introduce the animal ambassador using his/her/their name and pronouns. Invite students to greet animal ambassador (using a different language, gesture, etc.) Tell students that our job is to look closely and observe our friend using our eyes and ears.
4. What kind of animal is she/he? How did you know? Invite students to share what they already know about the animal ambassador?
5. Where do they think the animal lives? Ask students if they remember what an animal's home is called? (*habitat*)
 - A habitat is a good fit for an animal if it provides food, water, air, shelter, and space. If a habitat no longer provides these basic needs, an animal can move, or it won't be able to survive. Relate this to our neighborhoods. We have grocery stores where we find food. We have neighbors, family, or friends that live nearby so we can interact

Program Type: Virtual Empathy Program Program Title: Wild Habitats

with each other and help each other. We have water that comes from rivers or lakes nearby right into our own homes that we use to cook and clean with and to drink. Sometimes when our needs change, we'll move to a different neighborhood.

Animals will also move to find their basic needs.

6. What does he/she need to live and grow? (Basic needs like food, water, shelter, air, and space) Animals have unique body parts to find these basic needs in its habitat.
7. Share with students that if we look closely, animals have body parts that give us clues about where an animal lives. Have them look closely and see if they can come with ideas on their own. If students need help, show them one of the rubber fish and show them the fins that help fish swim in an aquatic habitat.
8. Focus on observing and identifying the external body parts that help the animal survive in his/her/their habitat:
 - What color fur/feather does she/he have? Compared to...is she/he small or big? Does she/he have long or short fur? Smooth or bumpy skin?
 - How does she/he move? Does she/he have a unique way of hiding or getting away from predators.
 - What kind of food do you think he/she likes to eat? How does he/she catch his/her food?
 - Where does it like to rest?
9. Based on the unique body parts that we have identified, what kind of habitat do you think he/she lives in. Do these body parts help (insert animal name) survive in her/his habitat?
10. Invites students to ask questions they have about animal ambassador.
11. **Tell students:** Now that you know what an animal needs to live and grow, you're going to explore different animal habitats.
12. Have students say goodbye to (insert animal ambassador's name).

Remove the iPad cameras from the meeting by clicking on “manage participants” at the bottom of the navigation window. A list will appear on the right with a list of the participants in the meeting. Hover over the Animal Ambassador and Animal Handler Staff and click on the blue “More” button then click on “Remove”. Use your laptop for the second half of your program.

THEME OF THE WEEK (10 MIN):

1. An animal's home is called a *habitat*. Reinforce that an animal's habitat provides the basic needs like shelter, food, water, and air by teaching the movements below.
 - Shelter – make a roof over your head
 - Food – pretend to nibble on food
 - Water – make wave with your arm
 - Air - breathe (inhale and exhale), exaggerate with arms
 - Space – put both arms out wide to take up space
2. **Movement Activity:** Tell students that you are going to go on adventure together to explore different habitats. You are going to give them clues by showing them the equipment they may need to explore these habitats. Encourage students to do the motions below with you and then guess what habitat you are in.

Program Type: Virtual Empathy Program Program Title: Wild Habitats

3. Share the Animal Habitat PowerPoint slides as a background to reveal the habitat and invite them to guess an animal that lives in that habitat. Then share one of the plush toy animals and highlight some of its body parts to help it survive.
 - Use props when available and have students pretend to put on their own imaginary gear.
 - *Rainforest – pretend to put rainboots on, open their umbrellas, put a rain jacket on, have them jump in place in a muddy puddle*
 - *Desert – put sunglasses on, sunhat, cool themselves down by fanning themselves*
 - *Ocean – put swim goggles and swimming flippers on, pretend to swim*
 - *Arctic – put on a hat, mittens, scarf, pretend that you are shivering*

CONCLUSION (5 MIN):

Animals only live in a habitat when their needs are met. Habitats provide animals with food, water, shelter, and air to help them live and grow. To survive in each habitat, animals have unique body parts or adaptations to eat, move, get away or hide from predators, and to find or build shelter. Habitats come in many different sizes and can be found all over the world and often times are shared by millions of animals including humans. In order for animals to stay happy, healthy, and safe, their habitats must be protected.

Sneak peek for your next activity: Next week, we will meet you at the same time to visit some special habitats here at the Minnesota Zoo. We will also be meeting some animals that live in those habitats.

PROGRAM B: TRAIL TOUR

Instructor Note: The goal of the trail tour is to connect classrooms to the rest of the Zoo. Classroom teachers have emailed their trail preference. This information can be found on your schedule. Refer to the virtual tour notes found in the virtual tour folder on basecamp for background information on each trail. Use this as an opportunity to review what students learned in Program A.

Recap of Program A:

- What is a habitat?
- What does a good habitat provide?
- Observe unique body parts that helps an animal survive in its habitat.

Oceans (Discovery Bay & Penguin) -include Penguins if time allows	Tropics Trail
<ul style="list-style-type: none">• Highlight different ocean ecosystems. (Tide pool, coral reef, estuary)• Focus on where animals are found in the ocean and discuss adaptations that help them live there.• Highlight that penguins are found in different habitats.	<ul style="list-style-type: none">• Highlight different layers of the rainforest.• Focus on where animals are found in the rainforest and discuss adaptations that help them live there.