Audience: This activity is designed for students grades 3-5, but it can be modified for students K-2 with adult support and supervision. In this activity, students will plan and carry out a Field Trip at home. This packet accompanies the video “Midpen Virtual Field Trips-Habitat”.

Tips for Teachers: If you are doing this activity as part of a synchronous lesson, suggested time limits can be found below for each section. Consider using the questions as discussion prompts for student groups, have students embark on their Field Trip at Home for homework, and use the worksheets as assignments to collect for assessment. Watch the video with your students.

Tips for Parents/guardians: Watch the video with your student. Print the accompanying Student Nature Notebook and fill it out together. Use questions as discussion prompts, encouraging students to talk out their ideas. Assist students with writing responses or encourage them to draw their ideas.

Objective: Students will be able to make observations and ask questions based on exposure to natural phenomena (photos and videos and Field Trip at Home). Students will be able to define a habitat, and to identify essential components of a habitat.

Included in this 5-E Lesson:

1. Engage! (Part 1: Your Habitat)
2. Explore! (Part 2: Preparing, Part 3: Field Trip at Home)
3. Explain! (Part 4: What did you find?)
4. Elaborate! (Part 5: Connecting animals to habitat)
5. Evaluate! (Part 6: Reflection)

To learn more about Midpen’s in-person field trips, please visit: https://www.openspace.org/what-to-do/education/field-trips

Virtual Field Trip – Notes on Habitat
Revised 1/21/2021
**ENGAGE!**

**PART I: Your Habitat**

All animals need to keep themselves safe and healthy. They get what they need from their surroundings. Humans are animals too! Think about what you need to survive.

**Find something in your home that you need to survive.**

*Teacher Tip: in a synchronous lesson, ask students to find an item and bring it back within a 2-minute time limit. Have students think, share in pairs, then share with the group responses to the following questions.*

What did you choose? Write or draw below.

Why did you choose this object?

All your surroundings and the places where you get what you need is part of your **habitat**. A **habitat** is not only an animal’s home; it also includes all the places an animal goes. A **habitat** provides four main components: food, water, shelter, and space.

Before going outside to find animals in their habitats, think a little more about your habitat. **Where do you get what you need to survive? Write or draw your responses below.**

*Teacher Tip: have students discuss in pairs and co-create a class list. Approximately 5 minutes total.*
<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
</tr>
<tr>
<td>Shelter</td>
<td></td>
</tr>
<tr>
<td>Space</td>
<td></td>
</tr>
</tbody>
</table>
EXPLORE!
PART II: Prepare to Explore

*Teacher Tip: If using these materials as part of a synchronous lesson, watch the video with your students now. Go to https://www.openspace.org/what-to-do/education/field-trips.

There’s nature to explore all around us. No matter where you are, you’re sharing habitat with other organisms.

With a grown up, plan to take a walk in your neighborhood or go to a nearby park. While on your walk, you will:

1. Observe (notice) animals in their habitat.
2. Observe (notice) evidence clues of animals.
3. Record your observations in your Nature Notebook.

Often, we don’t see the animals themselves, but you can know they were around because they leave clues behind. On your walk, look for evidence (clues) that animals leave behind.

*Teacher tip: Pose the question “what is one animal you have seen in your neighborhood before?” and ask for responses from each student. Follow up with “what are some clues that tell us an animal has been nearby, even if we don’t see the animal?” Ask for responses from each student. You can keep track or assign a note taker. Then add some of the examples below.

Checklist of Evidence of Wildlife:

- Footprints or tracks
- Feathers or fur
- Spider webs
- Poop (scat)
- Bird calls and songs
- Nests
- Holes and burrows in the ground
- Teeth marks on wood or branches
- Holes in leaves
Nature Notes:

*Teacher tip: Check out the Lawrence Hall of Science video “Nature Journaling...getting started!” on YouTube for some ideas for teaching this section or consider watching it together with your students (6 minutes). https://youtu.be/ueil4T29frw

Keeping a Nature Notebook can be both an art and a science. To keep track of our wildlife sightings, or evidence of wildlife, take notes. **Bring a notebook, paper, or the worksheet included in this packet, and something to write with.** Scientists and nature lovers of all kinds record observations and questions to learn more about their surroundings.

Use pictures, words, and numbers to record the wildlife or evidence of wildlife. The goal is not to make a pretty picture, but to record your observations and your ideas. Some things to include in your nature notes:

*Teacher tip: Ask students to think about what they think is important to include in their nature notebooks, especially if they were trying to explain it to someone who wasn’t there! And they couldn’t take a photo or video!

- Number of organisms
- Size
- Location
- Nearby habitat
  - Food source?
  - Water?
  - Shelter?
  - Space?
- Behavior (what was the animal doing?)
- Time of day
- Weather

With your parent or guardian, plan your Field Trip at Home! Take a walk in your neighborhood or go to a nearby park. Make a list of nearby locations that you can visit together safely. Look up the weather forecast in advance and wear appropriate clothing. Bring this Nature Notebook and something to write with (pen or pencil). You can bring a camera if you have one.

*Teacher Tip: Assign the Field Trip at Home for homework. Suggested time spent on the Field trip at Home will vary by grade level. We suggest the following: K-2 (20-30 minutes), 3-5 (30-60 minutes).
EXPLORE! PART III: Field Trip at Home!

While on your Field Trip at Home, record your observations on this page. Use drawings, words, and numbers. Print more copies of this page if you’d like! Decide where you’ll walk and be sure to bring an adult with you.

<table>
<thead>
<tr>
<th>Location:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EXPLAIN! PART IV: What did you find?

*Teacher Tip: have students share their nature notebooks in class in pairs, and then with the whole group. Ask students to share if they observed similar animals or evidence of animals or keep a running list of questions that arise. (15 minutes)

<table>
<thead>
<tr>
<th>List what kinds of animals you observed.</th>
<th>If you know the name of the animal, you can include it. You don’t need to know the name to include it on this list, but try to describe it as best as you can:</th>
</tr>
</thead>
<tbody>
<tr>
<td>List the evidence (clues) of animals that you observed</td>
<td>(if you didn’t see the animal itself):</td>
</tr>
<tr>
<td>Did you observe an organism interacting with its habitat? Was it getting food or water, or was it in its shelter?</td>
<td>Describe one example of observing this organism.</td>
</tr>
<tr>
<td>What questions came up while you went on your Field Trip at Home? What is something that you’d like to find out more about?</td>
<td></td>
</tr>
</tbody>
</table>
**ELABORATE!**

**Part V: Connecting animals to habitat**

Some of the big questions that we ask when we go outside in nature are:

1. How can we find out what animals live here?
2. What about this place makes it such a great home for animals?

Before you go on your Field Trip at home, let’s think about these questions. Discuss your ideas with an adult or partner and write your ideas below.

<table>
<thead>
<tr>
<th>How can we find out more what animals live in your neighborhood?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>What about this place makes it such a great home for animals? Think about what an animal needs from its habitat. What kinds of food, water, shelter, and space is available for animals in area where you went on your Field Trip at Home?</th>
</tr>
</thead>
</table>
EVALUATE! Part VI: Reflection

Close your eyes and think about your Field Trip at Home. Focus on your experiences, observations, and feelings that came up while you were walking outside looking for animals and evidence of animals.

*Teacher Tip: have students spend quiet individual time reflecting on their own Field Trips at Home (5-10 minutes).

While you were on your Field Trip at Home, how did you feel while you were planning? What about when you found an animal? Describe your feelings during your Field Trip at Home.

What questions came up while you went on your Field Trip at Home?

Did you find anything that surprised you while on your Field Trip at Home?

What is something else that you’d like to learn about the animals around your home?

The Midpeninsula Regional Open Space District has preserved nearly 65,000 acres of open space land in 26 preserves in the Bay Area. The mission of the District is:

To acquire and preserve a regional greenbelt of open space land in perpetuity, protect and restore the natural environment, and provide opportunities for ecologically sensitive public enjoyment and education.
*Teacher Tip: pose this question for students to discuss in small groups, and then as a whole class.*

Think about what animals need from their habitat (food, water, shelter, and space). Explain why you think it’s important to protect open spaces.

NGSS Correlates for teachers:

<table>
<thead>
<tr>
<th>California Next Generation Science Standards (3-Dimensional Lesson Design)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the NGSS Performance Expectation by its code and short title. Students who demonstrate understanding can:</td>
</tr>
<tr>
<td>3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Describe the Science &amp; Engineering Practice(s) addressed in the lesson</th>
<th>Describe the Disciplinary Core Idea(s) addressed in the lesson</th>
<th>Describe the Crosscutting Concept(s) addressed in the lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asking Questions and Defining Problems: Scientific investigations begin with a question. Scientists use different ways to study the world.</td>
<td>LS1.C Organization for matter and energy flow. Food provides animals with the materials and energy they need for body repair, growth, warmth, and motion. Plants acquire material for growth chiefly from air, water, and process matter and obtain energy from sunlight, which we use to maintain conditions necessary for survival.</td>
<td>Patterns: observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.</td>
</tr>
</tbody>
</table>