Title: Habitats 1 & 2

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<th>Grade: 2nd</th>
<th>Date of Delivery: March 26, 2019</th>
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<tr>
<td>Unit: Ecology 201</td>
<td>Time: 2 x 45 min</td>
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**Unit overview and background information:**
Nature forms a complex web connecting the living to the nonliving. Our garden as a whole functions as an ecosystem and the better we care for it as a whole, the more it will produce for us. A large ecosystem is made up of several smaller ecosystems and within each dozens of different habitats. In order for our students to begin to understand how the entire garden functions they first must care for our habitats.

**ESYNOLA Garden Core Concepts:**
Ecology 201 - Recognizing how the four components of habitats are interconnected (food, water, air, shelter)

**Objectives:**
Day 1
- SWBAT describe what a habitat is and give examples of habitats in our garden.
- SWBAT connect animals to their garden habitats

Day 2
- SWBAT classify things as living, dead, and nonliving parts of a habitat
- SWBAT classify that living things grow, reproduce, and need food, air, and water

**Assessment plan** (formal or informal):
Students will draw a habitat picture, starting first with only the nonliving parts of it. Then they will add the living pieces.

**Academic component:**
In our garden we define habitats as places where living things make a home. In order to be healthy, all habitats must have 4 components: food, water, air, and shelter. Only with all 4 of these things will an organism make a home there. Also, it is important for students to understand that habitats are made of living and nonliving pieces. All living things rely on non-living elements in order to survive.

**Key Academic and Culinary Vocabulary** (intentionally taught)
| Living - something that grows, changes, and reproduces |
| Habitat - a place where an organism makes it home. It must have food, water, shelter, and air. |

**Secondary Vocabulary** (language used in other classes; increase exposure)
| Dead - something that used to be alive |
| Non-living - anything that is not now nor has ever been alive |
DAY 1

Key Preparation/Materials:
Clipboards, paper and pencil OR small whiteboards and markers (optional)

Lesson Flow

Driving Question: Why do living things like our garden so much?

Lesson Intro - Engagement/Inquiry: (10 min)
Lead students to a pre-identified unusual place like a spiderweb, under rocks/logs, on milkweed. Allow students to explore the space and ask questions. (Don’t use the term habitat)
Challenge students to act out the animals they see and discover.
Timed-Pair Share: What animals live here? Why?
Push students to clarify why these animals live there. What do they need?

Body - Exploration: (30 min)
Visit another place with very different animals and repeat the activity.

As a whole group:
Compare the 2 places. Did they see the same animals? Why/why not?
Timed-Pair-Share: Why do animals choose to live in these places? Would you like to live on a spiderweb or under a rock? Why/why not?

Define these places with food, shelter, water, and air as habitats.
Round robin: List a different habitat in our garden an something that lives there.

Closing - Final check for Understanding/Summarization: (5 min)
Why do _______ live in the _______ habitat?
Who or what affects you in your habitat? How do you want to be treated in your habitat?

DAY 2

Key Preparation/Materials:
3-4 sets of: a jar of water, a jar of soil, jar of air, a rock, a worm, a plant and a picture of a person
Small whiteboards & markers

Lesson Flow

Driving Question: What does it mean to be alive?

Lesson Intro - Engagement/Inquiry: (10 min)
Divide your students into 3-4 groups (one group gets a full set of the materials).

Show students a jar of water, a jar of soil, a jar of air, a rock, a worm, a plant, and a picture of a person.
Challenge students to separate these items into 2 categories/groups. When time is called all students must be ready to explain why, or how they are different, so make sure everyone is included and all ideas are considered.

As appropriate give the students hints or guidance on how to sort, but keep the directions as general as possible without confusing them. The goal is for students to think about how each object is related to others (or not) and eventually sort them by living and nonliving. For example: if students seem stuck place the plant to one side in its own group and ask the group what other objects are like the plant in any way. Float between groups and encourage students to always justify their decisions. Give students 3min to sort their objects and work together.

Students share out
Lead group to see these objects as living or nonliving.
Ask: How do you know if something is alive? How do you know if something is nonliving? What in your house is nonliving and how does it help you?

**Body - Exploration:** (25min)
Lead students to one of the habitats from day 1.
Give pairs a whiteboard and marker. First challenge them to write down anything that is alive in this habitat. And then anything that is nonliving. Share out examples after each.
Timed Share Pair - Why do the animals need these nonliving things?

Repeat this exploration at another habitat you visited on day 1.

**Closing - Final check for Understanding/Summarization:** (10min)
Exit ticket - (see below)
Alternate closing-
Play “2 corners” - Teacher calls out an item found in a habitat and students move to either the living or nonliving isde and explain why
## Habitats Exit Ticket

**NAME____________________________________________________________**

Draw a circle around thing that are NONLIVING

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<tbody>
<tr>
<td>Rock</td>
<td>Worms</td>
<td>Dead leaves</td>
</tr>
<tr>
<td>Flower</td>
<td>Stick</td>
<td>Air</td>
</tr>
<tr>
<td>Ant</td>
<td>Water</td>
<td>Lizard</td>
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List 3 different garden HABITATS

Draw a line to connect animals to their habitat

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<thead>
<tr>
<th>HABITATS</th>
<th>ANIMALS</th>
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<tbody>
<tr>
<td>1)</td>
<td>Roly Poly</td>
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<td></td>
<td>Tadpole</td>
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<td>2)</td>
<td>Worm</td>
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<td>Lizard</td>
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<td>3)</td>
<td>Beetle</td>
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