

## Fire Ecology Learning Lab

### Agency and Informal Educator Lesson Plan: Community Helpers

Grade Level: K-2

Estimated Time per Class: 40-50 minutes

Lesson Overview:

- 5 minutes - Welcome and Introduction
- 10-15 minutes - Career Exploration
- 15 minutes - Story time
- 5-10 minutes - What can I do?
- 5 minutes - Conclusion

*Materials - Unless otherwise noted, all materials are included in the trunk or binder.*

#### **Pre-Visit Activity (optional)**

- Schoolyard Exploration Handout (original included in binder and available online)

#### **Classroom Lesson**

##### **Career Exploration**

- Uniform pieces and tools
  - Nomex shirt
  - Nomex pants
  - Gloves
  - MRE
  - Canteen
  - Fire Shelter
- Magnetic paper dolls
- Mini dry erase boards or cookie sheets

##### **Storytime**

- Flip book
- Laminated images

##### **Letter**

- Markers
- Self-stick easel paper (optional, not included)

#### **Post-Visit Activity (optional)**

- Paper Doll Handout (original included in binder and available online)
- Letter to Smokey Bear Handout (original included in binder and available online)



## Guiding Question and Assessment

### Guiding Questions:

- Who are the plants and animals in your schoolyard habitat?
- There are many people who help care for outside places. How does the presenter care for themselves, other people, and the land?
- How can you help care for nature?

### Goals:

- Students will learn about a land management career and the tools that they use to care for the land.
- Students will come up with two ways that they can help.

### Objectives:

- 50% of students will be able to identify a type of land management job.
- 60% of students will be able to name one uniform piece or tool that wildland firefighters use.
- 75% of students will know something they can do to help care for nature.

## Vocabulary

- **Habitat** - The home of a plant or animal. The place where the plant or animal gets the things it needs to survive (food, water, shelter, space.)
- **Community** - The group of plants, animals and people who live in a habitat.
- **Uniform** - Special clothes for a job.

Agenda and Timing	Teaching Notes
<p><b>Prepare:</b></p> <ul style="list-style-type: none"><li>• <i>At least 2 weeks before:</i> send optional letter for the teacher to provide to families about trauma informed care, provided in binder.</li><li>• <i>1 week before:</i> Contact teacher lesson to confirm details.</li><li>• Collect and prepare materials.</li></ul> <p><b>At the School:</b></p> <ul style="list-style-type: none"><li>• Arrive at least 30 minutes before the lesson is supposed to begin and check in at the main office. Some offices will require that you sign in and may give you a visitor's pass to wear.</li></ul>	<ul style="list-style-type: none"><li>• Ask if the teacher has checked in with families to identify any students who might have been impacted by fire</li></ul>



<ul style="list-style-type: none"> <li>• <i>Optional:</i> Consider visiting the school yard to see what kind of habitat students will be familiar with (including plants and animals.)</li> </ul> <p><b>In the Classroom:</b></p> <ul style="list-style-type: none"> <li>• Write your name on the board.</li> <li>• Lay out all props and handouts somewhere they are easy to reach for each part of the lesson.</li> <li>• Ask the teacher if they were able to complete the pre-visit activity.</li> </ul>	<ul style="list-style-type: none"> <li>• Lay materials where students can't reach or have minimal view to avoid early distraction</li> </ul>
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Pre-Visit Activity for the Teacher	Teaching Notes
<ul style="list-style-type: none"> <li>• <u>Schoolyard Exploration Activity.</u> Teacher takes students outside to make observations of the outdoors, in three stages: the ground, eye level, and the sky. Students will record their observations.</li> </ul>	<ul style="list-style-type: none"> <li>• This activity is <u>optional</u> for the teacher to complete with the class outside of your visit. Less than 25% of classes complete pre-work.</li> </ul>

Timing and Instructions: Welcome and Introduction (5-10 minutes)	Teaching Notes
<ul style="list-style-type: none"> <li>• <u>Introduce yourself</u> and where you work.</li> <li>• <u>Introduce the topic.</u> E.g., "Today we are going to talk about special outside places and the things that you and I can do to help those places."</li> <li>• Talk about the different classroom duties in that class.</li> <li>• <u>Define and discuss habitat.</u></li> <li>• Talk about the community of plants and animals in their schoolyard habitat.</li> </ul>	<ul style="list-style-type: none"> <li>• Write your name on the board</li> <li>• K-2 audiences will likely be very interested in your uniform. After introducing your name, consider describing the uniform you wear and why e.g., "When I put on my uniform it reminds me of the job I do to protect special places."</li> <li>• K-2 students love movement. You can incorporate movement into the discussion of habitat. E.g., "What does an animal get from a habitat?" <ul style="list-style-type: none"> <li>○ <b>Food</b> - rub your stomach</li> <li>○ <b>Water</b> - make a waving motion</li> <li>○ <b>Shelter</b> - Make a roof motion above your head</li> <li>○ <b>Space</b> - Wave your arms</li> </ul> </li> </ul>



	<p>at your side</p> <ul style="list-style-type: none"> <li>○ <b>Optional:</b> you can round out the dance with the chant. "Habitat is a wonderful place." Have a student lead an easy dance move that the whole class can do.</li> </ul>
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Timing and Instructions Career Exploration (10-15 minutes)	Teaching Notes
<ul style="list-style-type: none"> <li>• <u>Describe your work in fire</u> and how it helps plants and animals in a habitat.</li> <li>• <u>Show the <b>uniform</b></u> that you wear and explain how it helps keep you safe.</li> <li>• <u>Show the tools</u> you use for work and explain how they work.</li> <li>• <u>Explore other careers</u> - Use the magnetic paper dolls and have students guess the job based on uniform and tool clues. Start with outfit 1, using the wildland fire uniform, and discuss as a class. Move to outfit 2 that depicts a different career.</li> </ul>	<ul style="list-style-type: none"> <li>• You can invite someone from the class to wear the uniform and hold the tools as you are explaining them. "I am looking for a volunteer who is good at listening to instructions."</li> <li>• The tool and uniform tie nicely to the habitat discussion earlier. <ul style="list-style-type: none"> <li>○ Food: MRE (Meal Ready-To-Eat)</li> <li>○ Water: Canteen</li> <li>○ Shelter: Fire shelter</li> </ul> </li> <li>• For younger students, do the paper doll exploration with the entire class. Older students will be able to do the paper doll exploration in small table groups.</li> <li>• Note: Many different agency uniforms are depicted in the magnetic paper dolls including USDA Forest Service, National Park Service, US Fish and Wildlife Service, etc.</li> </ul>



Timing and Instructions Story Time (15 minutes)	Teaching Notes
<ul style="list-style-type: none"> <li>• <u>Transition students to the story location.</u></li> <li>• <u>Read the board book.</u> Use the laminated images in the magical backpack to guide the narrative to help “resolve” the obstacles that the narrator encounters (e.g., show the sunscreen and hat for the bright sun).</li> </ul>	<ul style="list-style-type: none"> <li>• Before the program begins, identify the best place to tell a story for the class. Seated on the floor can be a good option to pass around props and keep k-2 audiences engaged.</li> <li>• The board book is intended to guide your storytelling. Adapt it for your audience (e.g., add body movement, ask for help locating the animals, make predictions for what might happen next).</li> </ul>

Timing and Instructions What Can I do? (5-10 Minutes)	Teaching Notes
<ul style="list-style-type: none"> <li>• <u>Transition students back to their desk.</u></li> <li>• <u>Define <b>community</b>.</u></li> <li>• <u>Discuss:</u> Ask students for the things that they can do to help their schoolyard habitat or other special places.</li> <li>• <u>Write a letter.</u> On the whiteboard or sticky easel paper write a letter summarizing what students shared. Include the following: <ul style="list-style-type: none"> <li>○ [Date]</li> <li>○ Dear [____],</li> <li>○ [Body of the letter]</li> <li>○ [Ending]</li> <li>○ [Signature]</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• If time is limited or you are struggling to hold the attention of students: <ul style="list-style-type: none"> <li>○ Capture the conversation on the board of what individual students shared in the discussion.</li> <li>○ Students can individually draw what they learned.</li> </ul> </li> <li>• There will be different levels of familiarity with the basics of writing a letter depending on the grade.</li> <li>• Even though kindergarteners may not be able to read or write, there is value in exposing students to print and different uses for reading and writing.</li> </ul>



Closing (5 minutes)	Teaching Notes
<ul style="list-style-type: none"> <li>• Thank students</li> </ul>	<p>If passing out items (Smokey pencils, etc.), wait until the end of your lesson. Give the items to the teacher to hand out at the end of class or throughout the school year, you can say, “this will be a reminder of our time together and the things that we can do to care for our communities and our special places.”</p>

Post-Visit Activities	Teaching Notes
<ul style="list-style-type: none"> <li>• Letter to Smokey</li> <li>• Paper Doll template</li> </ul>	<p>These activities are optional for the teacher to complete with the class outside of your visit. Less than 25% of classes complete post-visit extensions or homework.</p>

Common Questions
<ul style="list-style-type: none"> <li>• What happens to [insert the name of an animal] during a fire?</li> <li>• Have you ever seen a [insert the name of an animal]?</li> <li>• Is your job scary?</li> </ul>

Working with Grades K-2
<p>Tips and Tricks:</p> <ul style="list-style-type: none"> <li>• The lead teacher might want you to visit multiple classes in a day. <u>You might need to shorten parts of this lesson to fit into their schedule.</u></li> <li>• Remember you are a subject expert. <u>Use words that are easy to understand.</u> Avoid using acronyms, jargon, and big words.</li> <li>• <u>Communicate your expectations for the teacher</u> (e.g., dividing students into groups, addressing any behavior issues, etc.)</li> <li>• <u>Set clear expectations and know you will need to repeat these.</u> You can ask students about the norms in their classroom.</li> <li>• K-2 students are energetic and have shorter attention spans. <u>Alter your speaking voice throughout the program to to maintain engagement throughout your presentation with speed, volume and tone. Build in motion to your program</u> (e.g., raise your arms, take a deep breath). <u>If students are getting antsy, consider taking a stretching break.</u> Do not present too many ideas at one time.</li> </ul>



- K-2 students like to tell stories. Ask very focused questions. Be prepared to get students back on track (e.g. "I would love to hear all of your stories, but let's save them until we are all done with the lesson.")
- K-2 students enjoy praise. Acknowledge good behavior (e.g., "I like how Ricardo is sitting quietly with his hand raised.")
- K-2 students are learning to play cooperatively. They can be concerned with perceptions of fairness. Be specific when asking students to participate or when passing objects around the room. If a student has raised their hand multiple times without getting selected, recognize them and thank them for being patient.

*The state standards below are provided to share with teachers. These are topics they are responsible for covering in a year. By sharing these with teachers they will be more likely to justify having you visit their classroom. NGSS stands for Next Generation Science Standards. These are used in New Mexico, sometimes called STEM Ready! Science Standards. Arizona standards are similar, but have a slightly different numbering convention.*

#### Next Generation Science Standards (NGSS) and AZ Science Standards

##### **NGSS Crosscutting Concept:**

K-ESS2-2 Earth's Systems: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

K-ESS3-1 Earth and Human Activity: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.

K-ESS3-3 Earth and Human Activity: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.\*

