

9- ILLUMINATING FIRE PRACTICES: PLACE-BASED KNOWLEDGE

INTRODUCTION

This lesson gives an introduction to some fire readiness actions (Ready-Set-Go), risk perceptions, and trauma resilience and integrates elements learned in this guide. The lesson would be best served in teams or group discussions and if able to integrate parents and fire partners would be greatly enhanced. Although, this can be done alone or as an individual.

LESSON OVERVIEW & ESTIMATED TIME (60 MINUTES- with Optional Homework 1-4 hours)

- Student Lesson Introduction (2 Minutes)
- Fire Prevention, Mitigation and Readiness Overview (15 Minutes)
- Exercise: Nature Journaling Integration Comparison Table (18 Minutes)
- Exercise: Nature-Informed Ready-Set-Go (15 Minutes)
- Exercise: Personal Readiness Sentence and Story Zine (10 minutes)
- Optional Family Homework: Nature Journaling Support for Evacuation Planning (1- 4 hours)

MATERIALS & RESOURCES

- Journal or notebook
- Student story zine
- Graphite pencil, eraser, and optional color supplies

LOCATION

There are no field exercises in this lesson although a natural setting for the discussion and writing activities could be used and offer prompts from previous lessons. The optional family homework would require outdoor time around the home and evacuation route(s).

BACKGROUND FOR LESSON

There are many terms and approaches to enhancing fire readiness and resilience. It can be helpful to frame discussions by fire prevention, mitigation and readiness. In fire prevention the focus is on preventing unwanted human-caused ignitions, which is tied strongly to seasonal and fire weather elements that influence fuel moisture and the fire use and behavior actions that are a high ignition risk. Fire mitigation generally assumes that a fire will occur and that fuel reduction (reduce fuel continuity, ladder fuels and ember spread) projects can help reduce potential fire intensity and spread. Fire readiness can include land owner, homeowner, and fire agency planning and training, along with fire prevention and mitigation actions timed appropriately to address fire risk and hazards. The Ready-Set-Go program is a fire readiness approach that many fire agencies support in California and could tie in well with fire journaling practices.

A big challenge in fire readiness is understanding and addressing risk perceptions and trauma responses. Risk is when something of human value is at stake and the outcome is uncertain. Studies have shown that what is meaningful about a place shapes how

people perceive and experience risk. A big disconnect in shaping fire risk and readiness is that fire has been excluded from the landscape and culture. The idea of fire as a regular part of the landscape is not well adapted or integrated into the individual and community sense of place. A sense of place is the personal characteristics we associate with a place that people build and adapt their lives around. For example, those living in areas with four seasons evolve and interweave their sense of time, habits, and home with those seasonal conditions. The uncertainty of fire effects and or effectiveness of fire readiness actions can have a crippling effect on people, especially with little understanding of how fire functions in the local environment. The goal for nature journaling the fire environment is in great part to help reconnect that awareness and understanding of fire in the local landscape, thereby reducing some level of uncertainty. There has been a growing level of support for Indigenous cultural burning practices which integrates the place-based knowledge of fire with cultural practices and sets a great example for a fire integrated sense of place.

The growing trauma associated with fire also contributes to the challenge of fire readiness. When the topic of fire is stressful and some sensory memories such as the smell of smoke can trigger traumatic memories, responses can be limited. Calming and warm up exercises can be integrated into nature journaling learning exercises or fire readiness efforts. Sensory exercises can be used to recalibrate associations with information and nature cues. Integrating nature observations into readiness planning and implementation may offer a more creative and trauma-resilient approach to fire readiness.

STUDENT LESSON INTRODUCTION (2 Minutes)

In this lesson we will review some concepts and approaches to fire readiness and you will consider and recommend how nature journaling can be used to support programs like Ready-Set-Go.

FIRE PREVENTION, MITIGATION & READINESS OVERVIEW (15 Minutes)

- Does anyone know what the word readiness means?
Discussion: Readiness is a state of being fully prepared and willing to do something...we are relating readiness to fire.
- Can anyone describe different ways that we get ready for wildfire? Would this readiness be different for prescribed fire? What is the difference between a wildfire, prescribed fire, and cultural burn?
Discussion: This can be a very open discussion but should touch on:
 - **Wildfire-** also known as wildland fire, is a fire that originates from an unplanned ignition. That ignition can be a natural ignition source like lightning or an unauthorized and accidental human caused ignition like an escaped campfire.
 - **Prescribed fire-** also known as a controlled burn, is a planned and prescribed fire set intentionally for the purpose of vegetation (fuels),

habitat, or agricultural management.

- **Cultural burn-** is a fire ignited by Indigenous custodians or people given their permission and guidance. The use of fire is specific to each location and cultural value such as a burn to reduce understory grassland or riparian vegetation conditions for basket weaving materials and food sources.
- **Fire prevention-** tracking and estimating when and where unwanted/unauthorized human caused fires may start (ignite) based on things like fuel moisture and fire weather and how to prevent them.
- **Fire mitigation-** reducing the intensity and spread of potential fires by clearing hazardous fuels around homes and neighborhoods. Think about fuels continuity, ladder fuels and ember materials and how those conditions can be improved.
- **Fire readiness-** is a state of being fully prepared for wildfire- land owners, homeowners, and fire agencies with plans, skills, training and projects in place before a fire puts that at risk.
 - The [Ready-Set-Go program](#) is a fire readiness approach that many fire agencies support in California and could tie in well with fire journaling practices.
 - **Ready-** fuel treatments in place to help reduce fire intensity and spread. Homes are built or updated with less flammable materials, screens cover vents and other things done to reduce the effects of a wildfire. Does anyone know where they can find information about making your home safe from a wildfire? Does anyone know of fuel treatment projects and activities around them?
 - **Set-** there is a home and community evacuation plan in place, with people and places identified for temporary relocation, people and animals have evacuation supplies/kits ready and within easy access. Everyone is familiar with the evacuation plan and knows how to communicate during an emergency.
 - **Go-** those people and places with an evacuation notice and or at risk of wildfire, are mentally and physically ready to go as early as possible. Everyone knows how to get alerts or notifications about evacuations and emergencies.

EXERCISE: NATURE JOURNALING INTEGRATION COMPARISON TABLE (18 Minutes)

- Ask students to get their journals out with a pen or pencil and create a comparison table with three columns labeled Prevention, Mitigation, and Readiness. Mitigation can include a mix of prescribed fire and cultural burning.

- As a class, facilitate a 10 minute discussion around what nature information and observations could be used to help with fire prevention, mitigation and readiness efforts. Students will discuss and add that information to their comparison table.
- Explain how some thoughts and information may fit in multiple columns and a tool to save space but make connections between categories is to use arrows, circles and icons to link the information. There are techniques used in graphic facilitation at meetings and conferences but also important ways to review and connect information and ideas within a journal page.

Discussion: In the comparison table columns or as notes, add ideas for the fire information/nature observations, journaling techniques and visuals thought could be used for the key fire prevention, mitigation, and readiness activities. For example, would you use the emergence of bees and butterflies to inform you when spring has arrived and you should start some of your early fire readiness efforts? Would you use phenology observations of grass drying and seeding to help inform you that fire season has started? What about the journaling exercise and visuals that you could use? When would you use a map, diagram, or table? Would you organize the information by physical location of the observations...sky observations at the top of a page and fuels observations at the bottom of the page? Would there be symbols or icons that could be used to help accentuate and organize key observations?

EXERCISE: NATURE-INFORMED FIRE READY-SET-GO (15 Minutes)

- Tell students they will have ten minutes to work independently looking back over previous REDI lessons and their journal pages and write about their thoughts on how to use nature signs and information to help with each phase of Ready-Set-Go.
 - For example, the Ready phase may include thoughts on the lesson about vegetation arrangement, the Set phase may include information from plant moisture and the Go phase may have thoughts from the weather lesson.
- Ask students to also include their feelings about fire and fire readiness. Explain how this is important in the preparation process because our feelings influence our motivation and learning abilities.
 - It's helpful to use journaling techniques to accentuate internal observations. You can create a special location on your journal page, a special table, color-coded or highlighted box or an icon like a heart. Personalizing your journal with your own meaningful icons and page design is key to developing a nature journal that is easy to look back on and used as a learning tool.
 - You can also develop specialized symbols, icons and emoticons to better accentuate sensory observations. For example, the nature journal page below was started with an outline on each page, which defines what information goes where and functions as a reminder for what to look for and observe while in the field. The portrait/facial images are used to connect and accentuate key sensory observations.

EXERCISE: PERSONAL READINESS MOTIVATIONAL SENTENCE & STORY ZINE (10 Minutes)

- Have students keep their journals open but also get out their story zine to a new page with their pencil/pen and some color supplies.
- Students have 10 minutes to create a seven word fire REDI story about themselves.
 - For the first 3 minutes, invite students to write words in their journal that best describe how they would feel and behave (actions and habits) if they were fire ready and fire REDI. They can use words out of the REDI guide introduction or come up with anything that defines how that way of being would look and feel.
 - If students are struggling, help them think about descriptive words they might use.
 - For the next 3 minutes, have them pick the best seven words out of their list. Have them think about the words that can be used in a sentence.
 - For the next 4 minutes, ask students to make a sentence out of those seven words and write that on their story zine page. They can add colors and or patterns to those words and or change the font size and shape to make the sentence more vibrant and interesting and to accentuate the more motivational words.
- A few minutes before their time is up, mention that they should add their name, school, grade, town, and community on the back page of the story zine.

END OF REDI MASTER GUIDE LESSONS (EXTRA HOMEWORK EXERCISE ON NEXT PAGE)

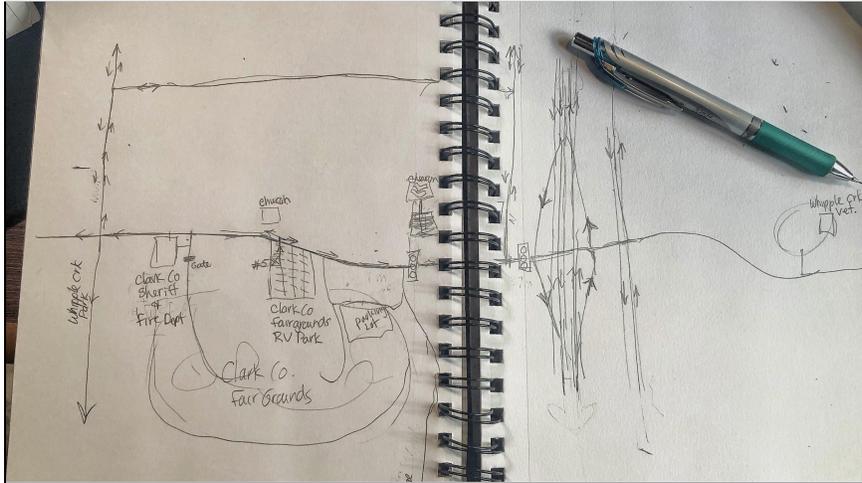
OPTIONAL FAMILY HOMEWORK: NATURE JOURNALING SUPPORT FOR EVACUATION PLANNING (1-4 Hours)

This exercise is recommended for a family but could also be conducted during a facilitated intergenerational evacuation planning workshop. This is not intended to replace or serve as an evacuation plan but demonstrates a process that puts your thoughts on paper and incorporates sensory and place-based information into your evacuation planning process. If there is an official community or city evacuation route, have a copy of that available to compare once you've completed this exercise so that you can compare what your personal and family thoughts and reactions are and how that may influence existing and expected evacuation routes.

STEP 1 (DISCUSS): As a group or family, discuss what elements you would put on a map to describe access in and out of your home and property. Should you include your

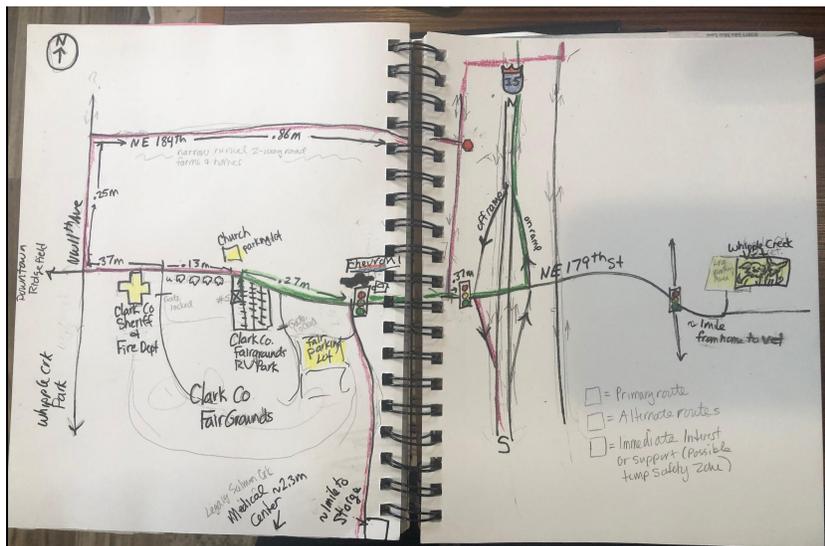
home, other buildings, walkways, and roads? What about vegetation elements and terrain?

STEP 2 (IMAGINE / REMEMBER):



Use a pencil to create a hand map of what you remember or assume is your physical evacuation route. Leave lots of blank space and don't worry about exact measurements or proportions.

STEP 3 (GROUND TRUTH / OBSERVATIONS)



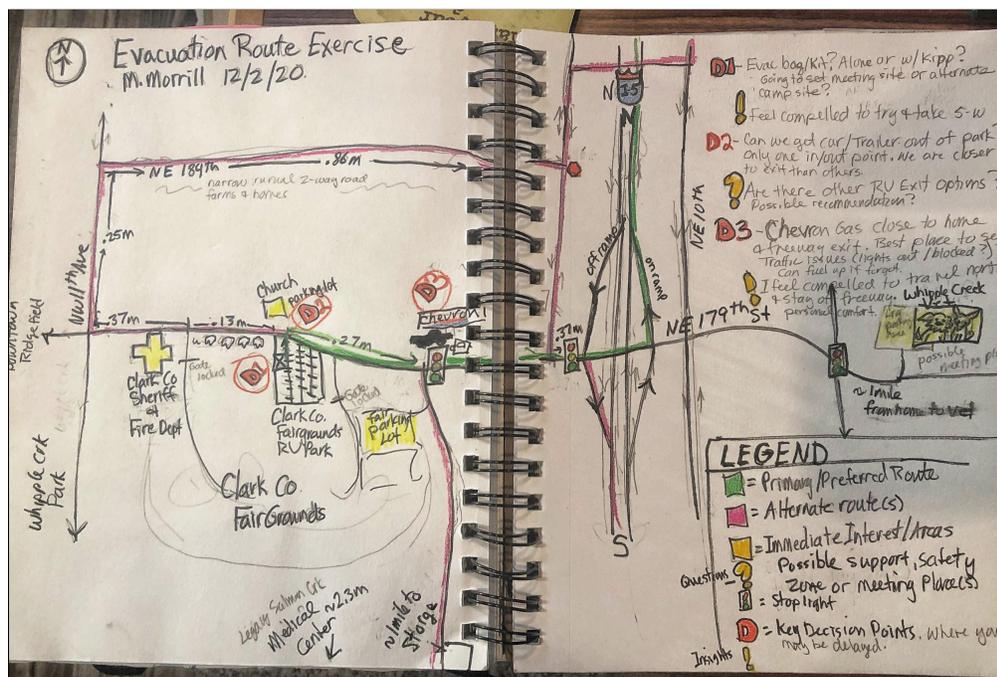
Bring your journal or sketchbook with pencil and color mark-making materials and walk and or drive a portion or all of your evacuation route. Add the key visuals and data about your route with darker and or colored materials to accentuate and differentiate. You don't want to add too much information and make your journal page and evacuation too complicated to look at.

This is the 'I notice' approach in nature journaling and is looking at observations (words, pictures and numbers like title for a landmark, symbol for a stop sign and mileage for distance).

Also stop and use all sense to acquire information. Do you smell trees, a bakery or cattle? Add those notes as well.

Imagine if it is dark out or smokey. Will things look different? What might stand out and be a good landmark?

STEP 4 (ANALYSE / QUESTIONS):



Discuss what you noticed and what questions and thoughts you have about the evacuation route. Do these questions come up at certain points along your evacuation route?

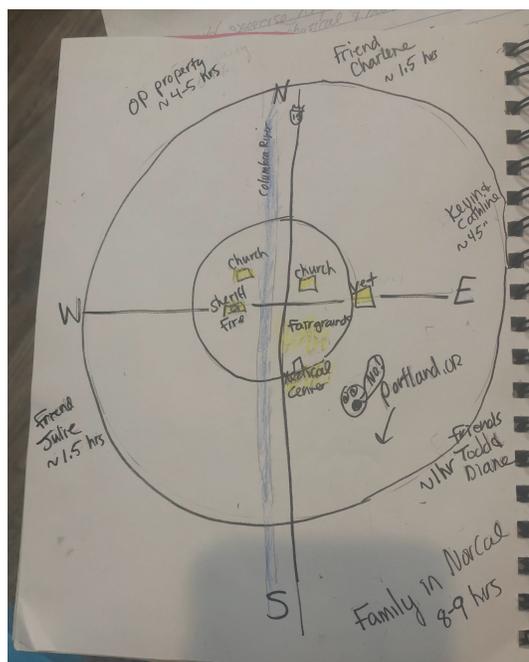
Add key decision points, questions, and insights along your route. Think about and discuss what physical elements or scenarios might complicate the evacuation process. Will certain times of year or day be different? What if one route is not available or you need to walk instead of drive?

Use icons along the map and add more details in another space or page to capture this thought process.

STEP 4 (ZOOM OUT/ SEE DIFFERENTLY):

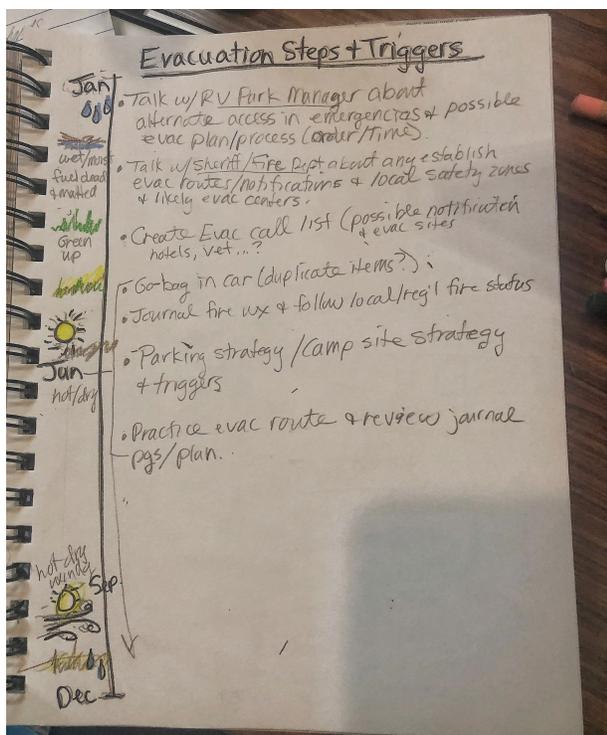
In nature journaling and observation skill development, it is important to look at things in different ways. For evacuation planning, it could be helpful to shift the discussion and analysis based on mode of travel.

Discuss if you needed to travel on foot. How far would you travel? What are the landmarks and elements within that area?



Create a circle diagram (X/Y axis/cardinal directions) that has a close/on foot zone and expanded considerations in blank space or another page (I wonder). Were there any insights or questions? Write down your thoughts and feelings in your journal and use symbols or colors to accentuate information follow up or personally sensitive considerations that may need more discussion or support.

STEP 4 (TEMPORAL CONSIDERATIONS):



Go to a blank page in your journal and discuss timeline considerations. This is a good section to integrate Ready-Set-Go and nature informed observations like seasonal observations and fire weather triggers.

This is also a good exercise to consider when and where you get your alerts and adding additional notifications such as fire weather (red flag) and adding that information review into your timeline.

Add a timeline line/diagram with icons and notes for things to remember based on the thoughts and issues from your maps (It reminds me of).

Effective evacuation planning considers not only developing, reviewing and practicing evacuation routes, but the best timing to have the go-bag ready and the best time to

leave based on the unique place-based situation.