



**HAWAII WILDFIRE
MANAGEMENT ORGANIZATION**



KNOW FIRE

K-8TH GRADE

**WAIKOLOA WILDFIRE SAFETY PARK AND
DEMONSTRATION GARDEN CURRICULUM**

Hawaii Wildfire Management Organization
Know Fire Waikoloa Dryland Fire Safety Park Lesson Plans
Overview

Activity	Grades	Overview	Objectives	You will need:
Wildfire Safety Garden Overview		The Waikoloa Dryland Wildfire Safety Park and Demonstration Garden provides a perfect setting to teach Firewise and Ready, Set, Go! concepts. It also provides an opportunity for students to become familiar with native dryland plants and how they can be used in Firewise landscaping.	The overview document provides and introduction and basic direction for the outreach liaison who will be guiding student activities at the garden.	
Garden Scavenger Hunt	K-8	The Garden Scavenger Hunt is a great way to get the students acquainted with the demonstration garden. It allows students the opportunity to explore the different purposes of the garden.	<ul style="list-style-type: none"> • Get acquainted with the garden. • Understand the garden’s intent and primary messages. 	<ul style="list-style-type: none"> • Activity Guide • Scavenger Mission Sheets • Pens • Clipboards
Harden Your Home	4-8	This is a fun activity designed to give students a hands on approach in identifying parts of a house structure that can be made to be fire resistant.	<ul style="list-style-type: none"> • Identify key examples of methods to harden a home. 	<ul style="list-style-type: none"> • Debris to put in gutter • Mock shingle material. Construction paper cut into shingles • Tape • Small screened vent. • Rake and Shovel • Short section of hose • Branches to use as ladder fuels etc. • Something to block “access road” • List of fixes
Landscaping Activity	4-8	The landscaping activity is a way to introduce FireWise-landscaping principles to the students as well as enhance their knowledge of native plants.	<ul style="list-style-type: none"> • Understand which plants would be most appropriate for planting in a FireWise landscape. • Understand the basic concepts of FireWise landscaping. 	<ul style="list-style-type: none"> • Plants in containers • Description cards for each plant • Tape • Answer sheets • Judge cards with smiley face rating
Garden Mini Exploration	K-8	The mini exploration is fun activity that allows students the opportunity to hone in their observation skills.	<ul style="list-style-type: none"> • To describe small details in the garden. • Write or draw personal observations. 	<ul style="list-style-type: none"> • Lesson Plan • 36” lengths of string (1 per student) • Magnifying glasses • Journals or Paper, pens

Firewise Demo Garden Overview



Instructor: Outreach Liaison

Overview

The Waikoloa Dryland Wildfire Safety Park and Demonstration Garden provides a perfect setting to teach Firewise and Ready, Set, Go! concepts. It also provides an opportunity for students to become familiar with native dryland plants and how they can be used in Firewise landscaping.

Goals

There are several basic topics we want to cover while teaching in the garden. By the time they leave, student should be able to:

- Understand the fire triangle.
- Recognize ways to harden a home.
- Understand and implement Firewise practices on a piece of property.
- Recognize several native dryland plants.

Requirements

Begin each session in the garden with a review of the fire triangle. There are no set requirements of how to use the various garden lessons. Be creative, enjoy your time, and most importantly, have fun with it.

Evaluation

Debriefing after activities is a very useful technique for helping students to process what they learn, reflect on it, and better remember details. Ask follow up questions to each exercise. Be creative with how you have students answer. It is always fun to have them answer by singing, dancing, or acting out their responses. Asking them questions and having them guess the answers is one way to avoid lecturing and helps them stay engaged.

Materials

Activity Guides:

- Garden Scavenger Hunt
- Harden Your Home
- Landscaping Activity
- Garden Mini Exploration

Garden Scavenger Hunt Activity



Grades K-8th

Overview

The Garden Scavenger Hunt is a great way to get the students acquainted with the demonstration garden. It allows students the opportunity to explore the different purposes of the garden.

Objectives

By the end of the activity students should be:

- Acquainted with the garden.
- Able to understand the garden's intent and primary messages.

Procedure

1. Gather group together and explain that they are going to go on a fact-finding scavenger mission.
2. Hand out mission sheets and pens.
3. Tell students they have to finish all of the tasks on the mission sheet. They need to find the answers on their own.
4. They can only ask an adult leader for help.
5. Gather the group together and go over answers.
6. Students can also take turns sharing their short interviews

Questions

You can have students share their answers in a fun way.

1. Tell them they are going to answer in the popcorn method.
2. Have students sit down.
3. Repeat questions one at a time to the students.
4. When a student has an answer they can "pop" up. Only one student can answer at a time. Once they answer they should sit down quickly. Once the student sits down another can "pop" up.
5. Repeat until everyone who wants to answer has had a chance to do so.

Materials

- Scavenger Mission Sheets
- Pens
- Clipboards

Other Helpful info



Garden Scavenger Hunt Mission Sheet

YOUR MISSION, SHOULD YOU CHOSE TO ACCEPT IT:

FIND THE ANSWER TO ALL OF THE QUESTIONS AND
REPORT BACK TO ME IMMEDIATELY!

1. FIND AND DRAW 2 NATIVE PLANTS: ONE FROM THE 10FT RING AND ONE FROM THE 30FT RING. LABEL THEM WITH BOTH THE HAWAIIAN AND SCIENTIFIC NAMES.

2. HOW MANY SIGNS ARE IN THE GARDEN?

3. HOW MANY FEET SHOULD BE CLEARED AROUND YOUR HOUSE?

4. WHAT ARE 4 WAYS TO HARDEN YOUR HOME?

- 1.
- 2.
- 3.
- 4.

5. WHAT IS A LADDER FUEL?

6. THERE IS ONE STATUE IN THE GARDEN, WHERE AND WHAT IS IT?

7. USING THE DIRECTIONAL SIGNS, IF YOU WERE TO HEAD NORTHWEST (NW) IN THE GARDEN FROM THE HOUSE WHAT IS THE NAME OF THE FIRST NATIVE TREE YOU WOULD FIND? WHAT IS IT CALLED IN HAWAIIAN AND WHAT ARE A FEW OF ITS USES.

8. DOES EVERY PLANT HAVE IRRIGATION (GET WATERED FROM A SMALL BLACK HOSE)?

9. FIND ONE PLANT IN THE GARDEN YOU REALLY LIKE AND INTERVIEW IT FOR 1 MINUTE. ASK IT AT LEAST 4 QUESTIONS. THEY CAN BE WHAT IS YOUR NAME? DO YOU LIKE IT HERE? DO YOU HAVE ANY FRIENDS? WHAT IS YOUR FAVORITE TIME OF DAY? YOU CAN MAKE UP YOUR OWN QUESTIONS TOO!

10. NAME ON NON-NATIVE PLANT OR TREE THAT IS GROWING IN THE GARDEN.

Harden your home Garden Edition

Grades 4th-8th



Overview

This is a fun activity designed to give students a hands on approach in identifying parts of a house structure that can be made to be fire resistant.

Objectives

By the end of this activity students should be able to:

- Identify key examples of methods to harden a home.

Procedure

1. Before students arrive, prepare garden area with problems to be fixed (see List of Fixes).
2. Begin with students by explaining what it means to harden your home. For example, making sure:
 - There is nothing on or near the house that could catch on fire
 - All necessary safety tools are in or near the house
 - The surrounding property and access roads/driveways are clear for emergency vehicles to enter.
3. Take a small walk and explore the house area and property surrounding the house. Tell students to put on their 'Know Fire' goggles and observe while they walk. Tell them not to say anything just yet.
4. Ask students if they see anything that is on or near the house that would be of concern. (Use list of problems and fixes to make sure all problems are fixed).
5. Go to each problem one by one. Let the students try to address the problem themselves. It's all about self-discovery. Prompt them if they need help. Have them find the problem and then come up with the solution. Let them carry out the solution. That may mean clearing out gutters, finding and bringing back an extinguisher, or taking off bad shingles and replacing them with new fire resistant ones.
6. Make sure they use their hands and everyone participates in the activity.
7. Bring everyone back together and review why it is important to harden your home.

Questions

1. Why is it important to harden your home?
2. Are there any other ways we didn't find that you could harden your home and make your property safe?

Materials

- Debris to put in gutter
- Mock shingle material.
Construction paper cut into shingles
- Tape
- Small screened vent.
- Rake and Shovel
- Short section of hose
- Branches to use as ladder fuels etc.
- Something to block "access road"
- List of Fixes

Landscaping Activity Garden Edition

Grades 4th-8th



Overview

The landscaping activity is a way to introduce FireWise-landscaping principles to the students as well as enhance their knowledge of native plants.

Objectives

By the end of the activity students should be able to:

- Understand which plants would be most appropriate for planting in a FireWise landscape.
- Understand the basic concepts of FireWise landscaping.

Procedure

1. Explain to students that they are landscapers who have been hired to landscape around their houses and schools using firewise techniques.
2. Their mission is to go to the local plant nursery and to rate plants from poor to excellent for use in their landscaping project
3. Ask students questions like, “ What do you think would make a good plant for a firewise garden?” and “ Would you want a plant that produces a lot of seeds or a just a little bit?” Get creative. Just make sure to get them thinking in the right direction.
4. Hand out their answer sheets. Tell them to go explore the nursery. Let them know to get up close and personal with the plants. Tell them to not only read the descriptions, but also really look at and touch the plants as well.
5. Tell them after reviewing the plant card that they should write the name down on their answer sheet and then rate it using the smiley face system. A frown face gives it a poor rating, a straight face gives it a moderate rating, and a happy face gives it an excellent rating. Ask them to write a couple reasons why they gave it that rating as well.
6. Once they have finished rating the plants gather them up and hand out the judges cards to each of them.
7. Read aloud the plant name and ask them something like, “survey says?” Have them all hold up their ratings. Make sure everyone is holding up the same card that corresponds to the answer key. Discuss with each other until every one has the same rating.
8. Once all the plants have been rated have students arrange plants around the garden according to firewise principles.

Questions

1. Follow up with some de-brief questions. Review and reiterate what they just learned.

Materials

- Plants in containers
- Description cards for each plant
- Tape
- Answer sheets
- Judge cards with smiley face rating

Garden Mini Exploration!

Grades K-8th



Overview

The mini hike is fun activity that allows students the opportunity to hone in their observation skills.

Objectives

By the end of the activity students should be able:

- To describe detailed components of the garden.
- Write or draw personal observations.

Procedure

1. Lay out pieces of string around the garden, try to place string near plants or places that seem interesting.
2. Inform students that they are going to go on a mini exploration of a very particular place in the garden. They have now been shrunk down to 1" tall!
3. Each student should have a magnifying glass, pen, and paper or journal.
4. Tell students they have about 10 mins to explore. Assign each student a string. Tell them that they should follow their pieces of string very carefully. Taking notice to everything they pass along their journey.
5. Have them describe and draw what they see near their string as if they were 1" tall.
6. Gather students when time is up.

Questions

1. Ask students if they would like to share what they drew and wrote about.
2. Ask students what it felt like to be 1" tall.
3. Ask students if they will go on more mini adventures.

Materials

- 36" lengths of string (1 per student)
- Magnifying glasses
- Journals or paper
- Pens