# BRANCHING OUT

# 2019

## PROCESS MANUAL

**JUNE 9th 2019**
**11AM - 2PM**

Branching Out is the 3rd Davis Bike Scavenger Hunt. Following prior hunts, Cycledelic and Farm to Fork to Fuel, Branching Out is excited to welcome a variety of participants, of all ages and abilities, to investigate and engage with the theme of Trees.

This year's theme creates a narrative around the trees that exist locally in Davis and aims to shed light on the impact trees have in our lives from an urban forestry standpoint. Partnering with the City of Davis, the UC Davis Narrative Environments design students have developed 16 clues that take participating teams to experiential activities that they must interact with in order to move on and explore more of Davis. The participants' enthusiasm will govern the game. Be they a family team, traditional bike team, or e-bike team, they will learn more about the urban forest around them.

The visual identity for Branching Out is inspired not only by bikes and trees, but by the soul of Spring and the coming Summer, capturing the feeling of this playful time.

# THE EXPERIENCES

**Soloman's Deli**
Initial and final location of Branching Out: 2019 Davis Bike Scavenger Hunt. This is the place where participants will come to check in and return to in order to win various prizes.
Facilitated by: Makayla Stump, Amy Endo, and Sierra Sparre

**Cedar Park**
Experience Maker
Karissa Tom
Come to the park named after me. I am a variety of tree in the plant family pinaceae. My leaves are evergreen and needle-like. My resin is unpleasant tasting, which is thought to be a defense against squirrels. Instead of moth balls humans use the block form of me to protect their clothes. You can also find me in the bottom of your hamster cage.

**Fig Tree**
Experience Maker
Melissa Jimenez
We come in "mission" and "brown turkey" in Davis. I am a mission variety. Come find me in a parking lot next to a bright blue wall and a giant carrot. Don't get too distracted by my location and go grocery shopping. Stay the course. You can get some goat cheese later.

**Cunningham Beefwood**
Experience Maker
Josh Novello
I look like a pine tree, but I am actually not. Some people call me the River she-oak others like to call be the Cunningham beefwood. Whatever you call me I am officially a City of Davis landmark tree. If you find the Landmark tree list you will see my common name and address. Come stop by and get your prize.

**Privet Tree**
Experience Maker
Kylie Jackson
Have you ever heard of a privet tree? It is an invasive species which some describe as the baddest of the bad. In the 60s and 70s these trees were planted in Davis. Come and find a privet tree planted in the park near the chancellor's house.

**Grafted European Hornbeam**
Experience Maker
Melanie Montoya
This is one of Davis's most unusual trees. The story goes that Dr. Phil Barker grafted a European hornbeam onto the parent tree to make the "chinning tree". He calls it the chinning tree because the tree resembles a pull-up bar.

**Scarlet Oak**
Experience Maker
Annie Li
The scarlet oak is on the same street as the chinning tree. Keep heading west and see this magnificent tree planted in 1972. The scarlet oak stands 96 feet tall with the girth of 10.5 feet and a 100 foot crown. In the fall, this tree turns a brilliant red.

**Redwood Park**
Experience Maker
Tracy Sam
Davis has many parks with tree names. Find the park named after this Sequoioideae.

**Italian Stone Pine**
Experience Maker
Ama Bonsu
I am a 55 year old Italian Stone Pine. Some might say I look like a 100 foot tall bonsai tree. You can find me on a street named after a fruit. The street name is not prune, but…

**Sycamore Park**
Experience Maker
Slater Penney
Wow! Davis residents must really love me, because they named a street after me and also a park. So who am I? We just met so please use my formal name, Platanus acerfolia.

**Acacia Grove**
Experience Maker
Melanie Fazio
This grove is named after Dr. Eric E. Conn who became an internationally-recognized expert on acacias. Acacia conniana, a species he discovered, was named after him. Find his grove and see the more than 50 species of acacias from Australia, Africa and the Americas.

**Cork Oak**
Experience Maker
Kelly Nishimura
My bark is difficult to overlook. Every seven to ten years you remove my outer cambrium and use it to make wine bottle stoppers and the centers of cricket balls. While you may see me throughout Davis, come to the project site out West by the unique housing styles that were built in the 1970s

**Redwood Grove**
Experience Maker
Sierra Weston
The T. Elliot Weier Grove is one of the largest collections of this type of tree living outside their native range. The tall trees create a shady, silent, cathedral-like atmosphere just a few minutes' walk from central campus. The grove is named for Dr. T. Elliot Weier, a professor of botany at UC Davis who helped establish the Arboretum in 1936.

**Coast Redwood**
Experience Maker
Millie Lozano
I am a Coast Redwood planted in 1926 when the mission style sanctuary building next to me was completed. I am 110' tall and growing outside of the only Presbyterian Church in the Country with a full baptistery. My species is among the oldest things on Earth. We live over 2,000 years and can reach up to 380 feet in height.

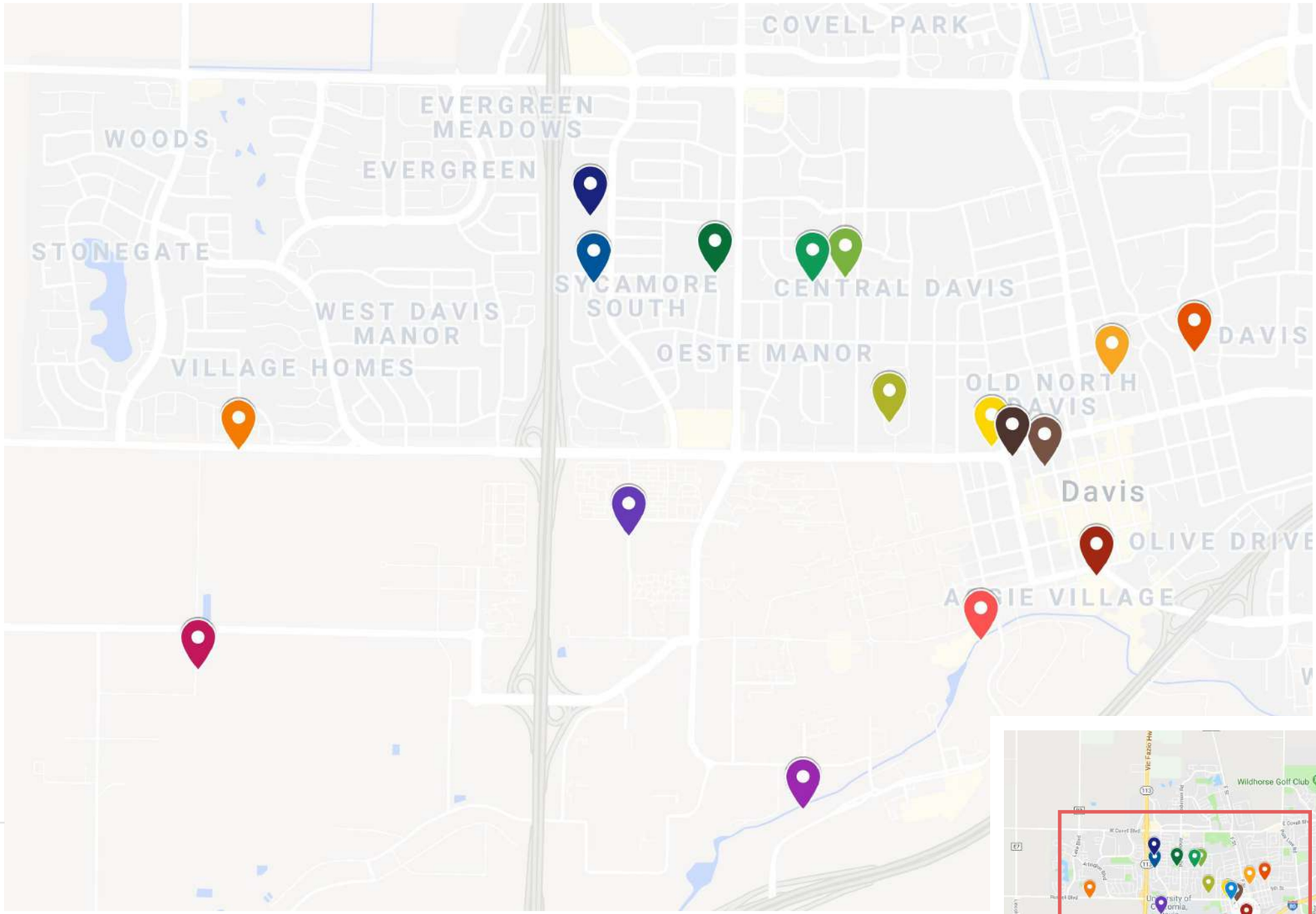
**Black Walnut**
Experience Maker
Scott Sanchez
Created in 1876, just two years after 18 residents petitioned the Yolo County Board of Supervisors to create a road between Davis and Winters. This road is shaded by black walnut trees planted by the LaRue family. Find this section of roadway called the Avenue of Trees and you will find your prize.

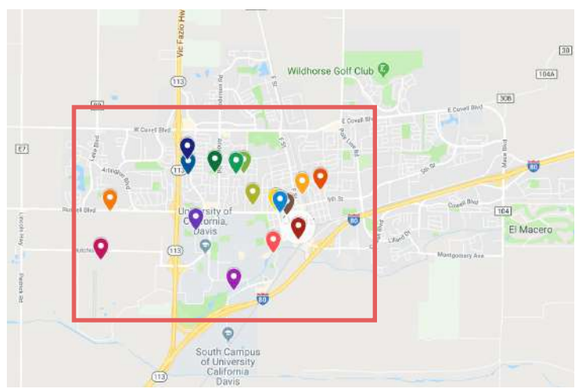
**Olive Tree**
Experience Maker
Nicole Arteaga
These trees are not native to the region, but have been in Davis since 1842. The Wolfskill family is credited with introducing these trees to Davis. Ride your bike on pathway named ----- Tree Lane on the UC Davis campus. One more hint – we harvest a lot of the fruit from these trees in Davis, bottle it up and sell it. But don't eat the fruit right off the tree, because I am really bitter.

**Valley Oak**
Experience Maker
Lindsey Yu
Find the California native tree that made headlines in 2015 when it dropped a limb at a popular park. Sudden limb loss phenomenon is common with these types of trees. Watch this video and come to the location of the drop.
"TreeBranch" by Khenian 74 - https://www.youtube.com/watch?v=yTPHp5Qv4S0

# SCATTERED AROUND DAVIS

- Solomon's Delicatessen
- Cedar
- Fig
- Cunningham Beefwood
- Privet
- Grafted European Hornbeam
- Scarlet Oak
- Redwood
- Italian Stone Pine
- Sycamore
- Acacia
- Cork Oak
- Redwood
- Coast Redwood
- Black Walnut
- Olive
- Valley Oak




# What are my uses?

CEDAR PARK

**CLUE**
Come to the park named after me. I am a variety of tree in the plant family pinaceae. My leaves are evergreen and needle-like. My resin is unpleasant tasting, which is thought to be a defense against squirrels. Instead of moth balls humans use the block form of me to protect their clothes. You can also find me in the bottom of your hamster cage.

**MAIN MESSAGE** Discover the versatility cedar tree

**GOALS AND OBJECTIVES**
- Find ways incorporating Cedar can improve your life
- Learn about properties through questions and experimentation
- Find out how trees benefit your neighborhood

**BRIEF DESCRIPTION OF TREE**
Cedar trees are evergreen trees found in a variety of climates around the world. They naturally repel insects making them valuable for many uses.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
Visitors stand in front of a poster with fill in the blanks. With a bucket of words, visitors will race to fill in the blanks with properties of the Cedar tree. The properties will be mounted onto Cedar rings. The visitors will have to match the rings to the different slots and learn why cedar is a versatile tree. They might learn a way they can incorporate Cedar into their daily lives as a way to naturally improve their surroundings. For example, using Cedar blocks in your closet or drawers is a great way to naturally repel bugs from your clothes. Another use would be through using Cedar mulch in your gardening to protect your plants from insects without using harmful pesticides. Next to the posters will be an infographic about the importance of trees in neighborhoods.



Concept Sketches

## RESEARCH

Cedar trees grow leaves year-round. They are in high demand as a building material because of their durability, rot-resistance and fine grain. They also have natural anti-fungal properties. In addition to being use in building, Cedar wood is also used to make pencils. Their wood is soft enough to sharpen without making splinters.

In the past, the ancient Egyptians used Cedar wood in their embalming process. The oil derived from Cedar trees is also useful. Cedarwood oil was one of the first ingredients used in perfumery. It can act as a natural bug repellent.

Their leaves have a natural wax coating on the outside to keep in moisture. This keeps the tree from drying out in different climates.

en.wikipedia.org/wiki/Cedrus_deodara
rtectreecare.com/urban-trees/

## LOOKBOOK

Activity inspiration; interactive infographic


Signage shape inspiration


Signage shape inspiration


Monochromatic design inspiration


Monochromatic design inspiration

Cedar Tree

## DESIGN DETAILS AND RENDERINGS

mounted on
foamcore/cardboard


11x17 posters with slots for the Cedar Rings

Bucket and poster are on
chainlink fence with zip ties


Posters will go on the chain link fence

mounted onto
Cedar rings



11x17 posters with facts
throughout the park

Berry Fresh

**COLOR PALETTE**

ACCENT 1 ACCENT 2

**MATERIALS**

- Mounted Posters
- Zip ties
- Small buckets
- Cedar rings


# FALLING FIGS

620 G St, Davis, CA 95616

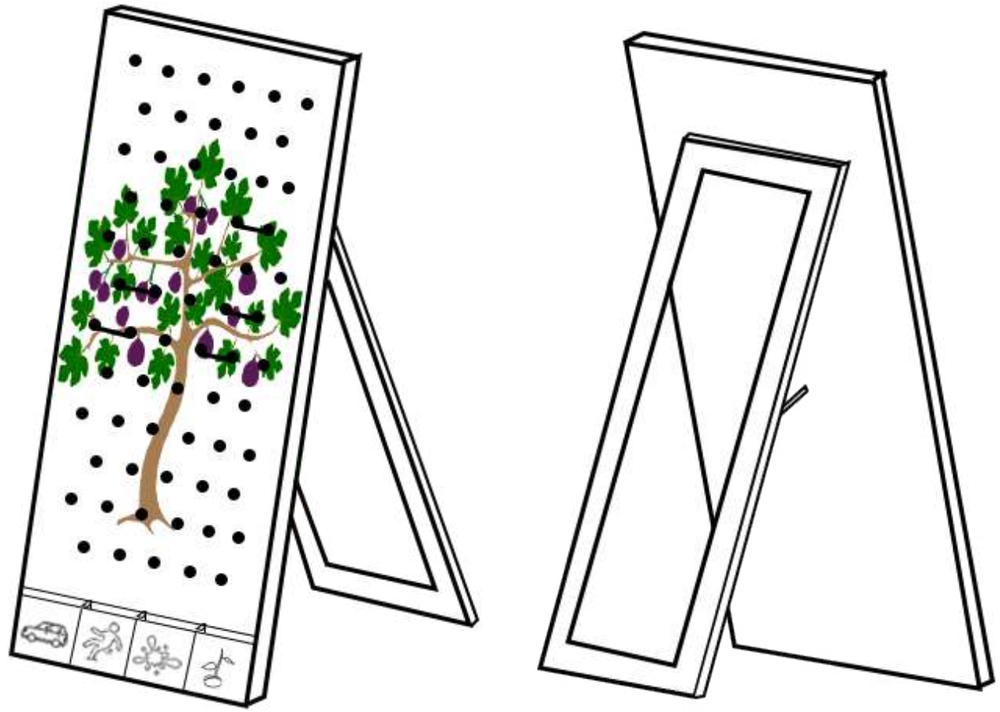
**CLUE** Come to the park named after me. I am a variety of tree in the plant family pinaceae. My leaves are evergreen and needle-like. My resin is unpleasant tasting, which is thought to be a defense against squirrels. Instead of mothballs humans use the block form of me to protect their clothes. You can also find me in the bottom of your hamster cage.

**MAIN MESSAGE** Focus on public food versus public safety in relation to fig trees.

**GOALS AND OBJECTIVES**
- Focus on the effects of fruit-bearing trees in an urban environment
- Emphasize the need for public safety rather than the want of public food
- Create a fun, engaging, and educational activity about fig trees

**BRIEF DESCRIPTION OF TREE**
The Mission fig trees were introduced to California by Franciscan missionaries in 1768, at San Diego. Fig trees can withstand Mediterranean weather, hence the abundance of them in the city of Davis.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
The "Falling Figs" activity consists of a Plinko-like board made out of a pegboard with the image of a fig tree painted on the surface. The purpose of this activity is to drop a purple disc that represents the figs down the board. The disc shall fall down the pegs, and the purpose is to try and land on the blocked off pegs and therefore keep the 'fig' on the tree. If the 'fig does not land on the blocked off spaces, it will land in one of the three different slots: HIT, SLIP, MESS, or PLANT. Each slot represents possible real-life outcomes that can occur if a fig were to fall off its tree. At the end of the activity, a table will have mini posters with each pictogram from the slots printed on top of it. The attendee can then learn more about the effect of figs for each slot they landed on. HIT, SLIP, and MESS are negative outcomes, but PLANT is a positive outcome. This card signifies that the attendee managed to plant the fig tree in an accurate environment.



Concept Sketches

## RESEARCH

Fig trees can tolerate hot weather as well as drought. There is an abundance of fig trees due to the fact that they grow well in Mediterranean weather. Mission fig trees can also be known as Black Mission trees. They were introduced to California by Franciscan missionaries at San Diego in 1768. Because of these missionaries, Mission fig trees are also known as Franciscana.

Mission figs are the most popular commercial figs in California. When the fruit is ripe, the skin can crack. The fruit can also be infected by the fig mosaic virus which is very common. This virus can affect the shape and color of the tree's leaves. Although it may affect its physical appearance, the fig mosaic virus does not affect its fruit production.

## LOOKBOOK

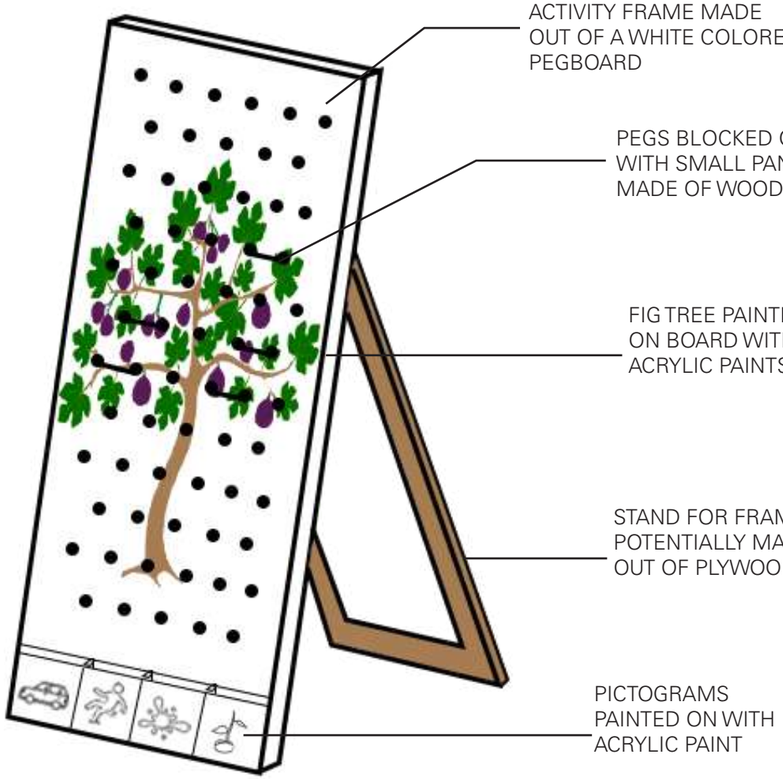
This shows the side view of the pegs on the board.

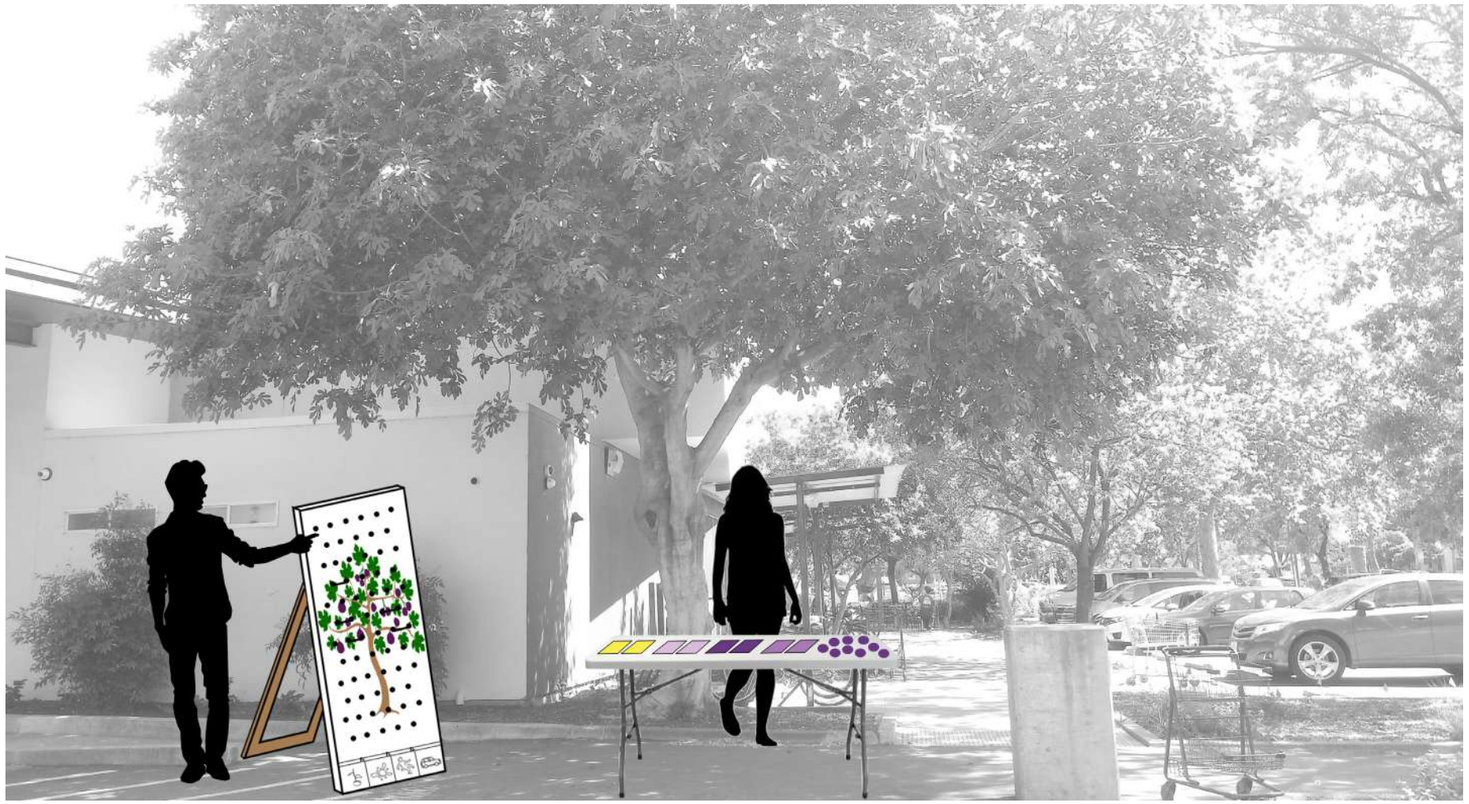

This carnival Plinko game shows an upscale model of the intended activity.


These show the movement on how to drop and slide the disc down the path.

This shows a full frontal view of the fig tree at the Davis Food Co-op.

## DESIGN DETAILS AND RENDERINGS

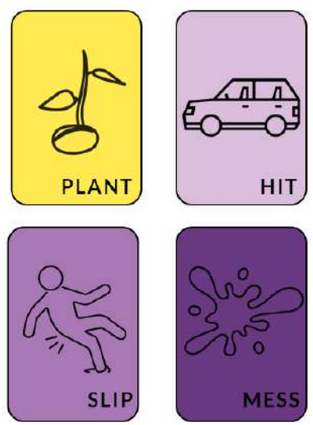


The inspiration for this activity came from a game called Plinko from the show "The Price is Right." For this activity, there will be round wooden discs which will be painted purple to represent figs. The discs will be dropped down the board in hopes of having the 'fig' stay on the blocked off pegs instead of having the figs fall. If the fig falls, the disc may land on a certain slot which represents a negative outcome of falling figs.

This activity will aim to focus on public food versus public safety and why having fruit-bearing trees in an urban environment is not the most ideal. The last slot with the seed painted on it, demonstrates that the seed was planted in an approriate environment.


This is an example of the back of the "HIT" card. Each card will have text on the back of it.




These are the front views of the informational cards that correspond to each slot.

### COLOR PALETTE

Grape Vibes


### MATERIALS

Pegboard

Acrylic paint


# How can I grow in low firtile soil?

23 Russell Blvd. Davis, CA 95616

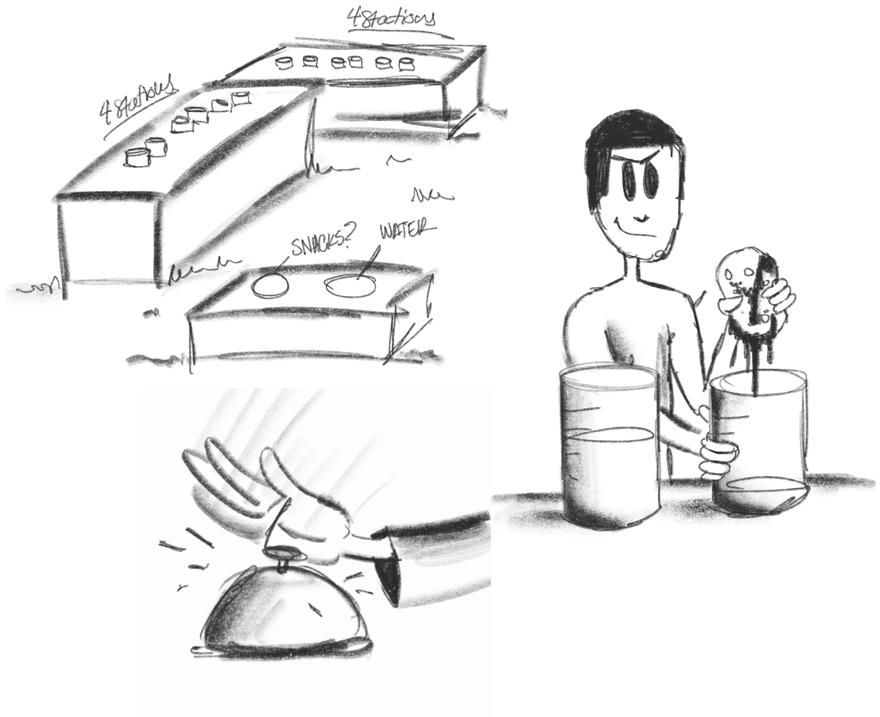
**CLUE**
"I look like a pine tree- but I am actually not. Some people call me the River She-Oak others call me the Cunningham Beefwood. Whatever you decide, I am officially a City of Davis Landmark tree. If you find the Landmark Tree list you will see my common name and address.Come stop by."

**MAIN MESSAGE**
To explain in simple terms how the Cunningham Beefwood utilizes Nitrogen Fixation to benefite its personal growth and absorb nutrients from the soil.

**GOALS AND OBJECTIVES**
- Briefly explain the Nitrogen Fixation process.
- Help visitors understand how the Cunningham Beefwood absorbs nutrients.
- Provide a learning experience in a fun and competitive atmosphere.

**BRIEF DESCRIPTION OF TREE** Casuarina cunninghamiana is a tall, nitrogen fixing tree capable of surviving in low fertile soil using the nitrogen fixation process. Commonly mistaken for a Pine Tree, the Cunningham Beefwood is usually erect, with dense rough bark and can reach heights around 115 ft.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
Much like the Cunningham Beefwood or She-Oak absorbs converted nitrogen within its roots using a process called, Nitrogen Fixation. Guests will enjoy a freindly race absorbing liquid from one container and tranfering it into a second in order to get the Nitrogen molicules above the "roots" line. The first racer whose Nitrogen reaches the roots wins a prize.




Concept Sketches

## RESEARCH

The River Oak is an attractive evergreen tree with fine greyish green needle-like foliage that grows to a height of 33–115 ft with a spread of about 33 ft. The trunk is usually erect, with dense rough bark. Flowers are reddish-brown in the male and red in the female These trees are usually found in sunny locations along stream banks and swampy areas.It's widely recognised as an important tree for stabilising riverbanks and for soil erosion prevention accepting wet and dry soils.

Nitrogen fixing: The river she-oak has a symbiotic relationship with the nitrogen-fixing actinomycete Frankia. This symbiosis provides nitrogen to the host plant and assists C. cunninghamiana to grow on low fertility soils.

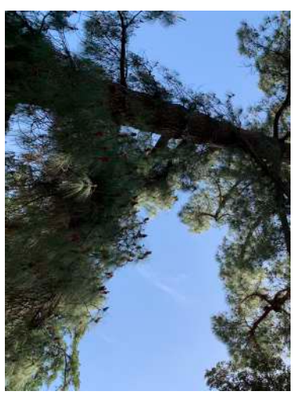
## LOOKBOOK

Absorbing water through sponge.

Bacteria, Frankia Nodules

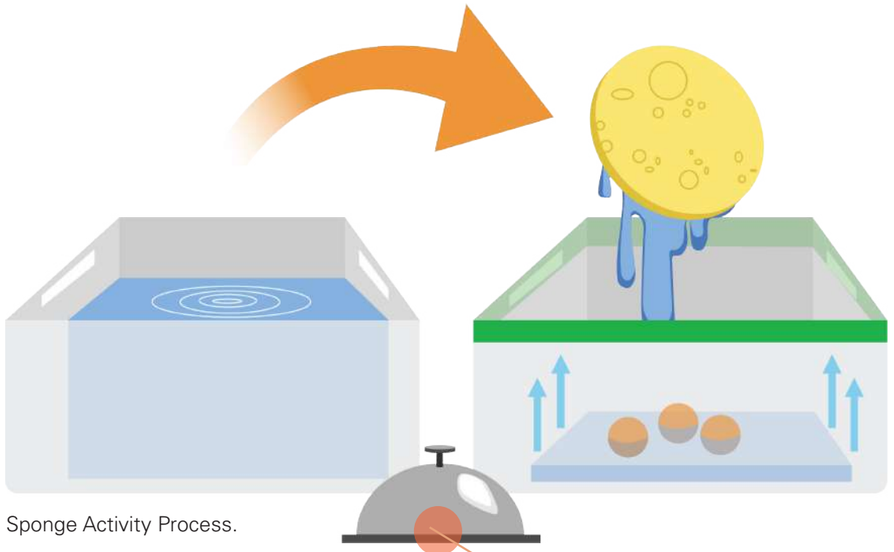
Bike and Absorption Race.

Cunningham Beefwood "leaf and cone."



Cunningham Beefwood or She-Oak.

## DESIGN DETAILS AND RENDERINGS



Sponge Activity Process.

Did you know the Cunningham Beefwood, also known as the "River She-Oak" has a symbiotic relationship with a bacteria called Frankia through a process called Nitrogen Fixation?

This partnership is responsible for converting the soils ambient Nitrogen into an absorbable form that the Beefwood can nourish itself through its roots. This partnership and teamwork is what allows the "River She-Oak" such as the ones growing here in Davis, to thrive.

HERE'S YOUR CHALLENGE

### THE RACE FOR NITROGEN

Much like the Nitrogen Fixation Process, you and your teammates will race to help the Cunningham Beefwood absorb the surrounding Nitrogen molecules.

### THE GOAL:

To raise the Nitrogen molecules from the bottom of the container, towards the top of the container as fast as possible.

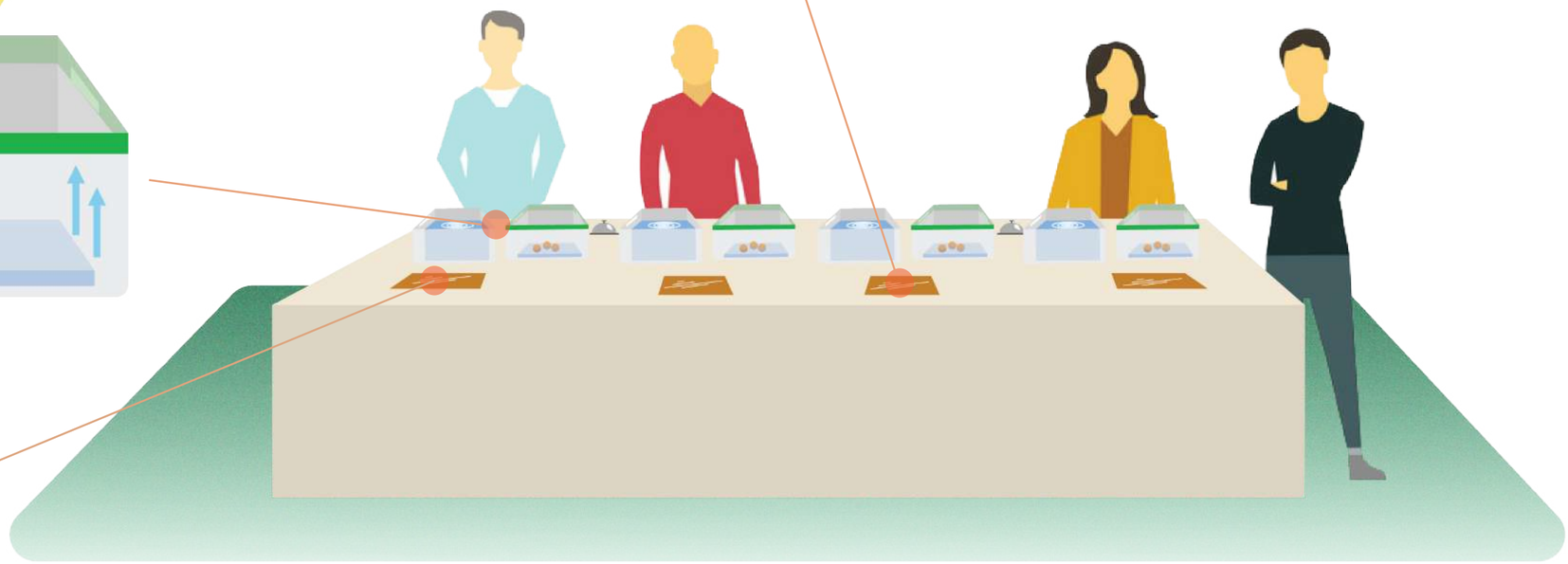
### INSTRUCTIONS:

Using only a sponge, absorb the water from container 1 and transfer it over to conatiner 2. The absorbed water will then cause the Nitrogen molecules to rise towards the top.

Once the Nitrogen have risen to the appropriate line, the racer can stop and ring the bell. The teammate to get their molecules to the top the fastest and ring the bell wins!

Bells will be placed between each pair of activity units for the winner to ring.

Intructional Graphic (water resistent)



Activity Table Set-Up

The Race for Nitrogen!

Racers will line up accordingly paired with an activity unit that consists of, one sponge, two containers (one filled with water the other containing 3 ping pong balls), bell and an instructional graphic.

The object of the game: To absorb the water from one container and transfer it to the second container using the sponge. The absorbed water will then cause the ping pong balls (Nitrogen) ro rise to the top of the container. Once the "Nitrogen Balls" have risen to the appropriate line, the racer will ring the bell and win the game.

3 Tables will be arranged. 2 allocated for the absorbing activity in order to accommodate for two teams that may play at the same time. The third table will be allocated for light snacks and a water bottle station.

To keep little ones occupied or any teams entertained while waiting to participate in an activity, giant bubble wands and music will be provided.

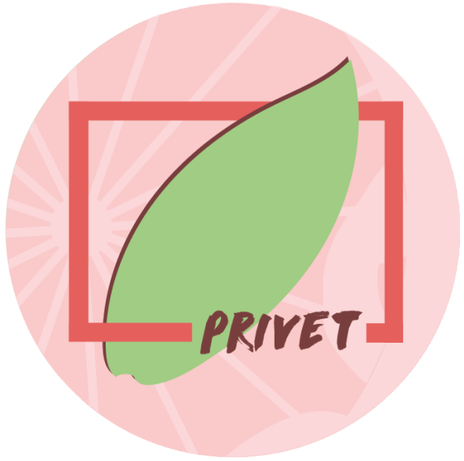
The winning member from each team will have the opportunity to pick a prize, as well as receive a punch- representing the completion of this Scavenger spot.

### COLOR PALETTE

ACCENT 1 ACCENT 2

### MATERIALS

Plastic Containers (x8)
Instructional Graphics (x4)
Sponges (x8)
Ping-Pong Balls (x16)
Bell (x4)
Folding Tables (x3)
Medium Bucket (x3)
Table Linens
Bottled Water
Snack(s)
Assortment of Prizes




# Hug Me?

College Park

**CLUE**

Have you ever heard of a privet tree? It is an invasive species which some describe as the baddest of the bad. In the 60s and 70s these trees were planted in Davis. Come and find a privet tree planted in the park near the chancellor's house.

**MAIN MESSAGE**

Privet species are deemed "invasive" but they are actually just misunderstood.

**GOALS AND OBJECTIVES**

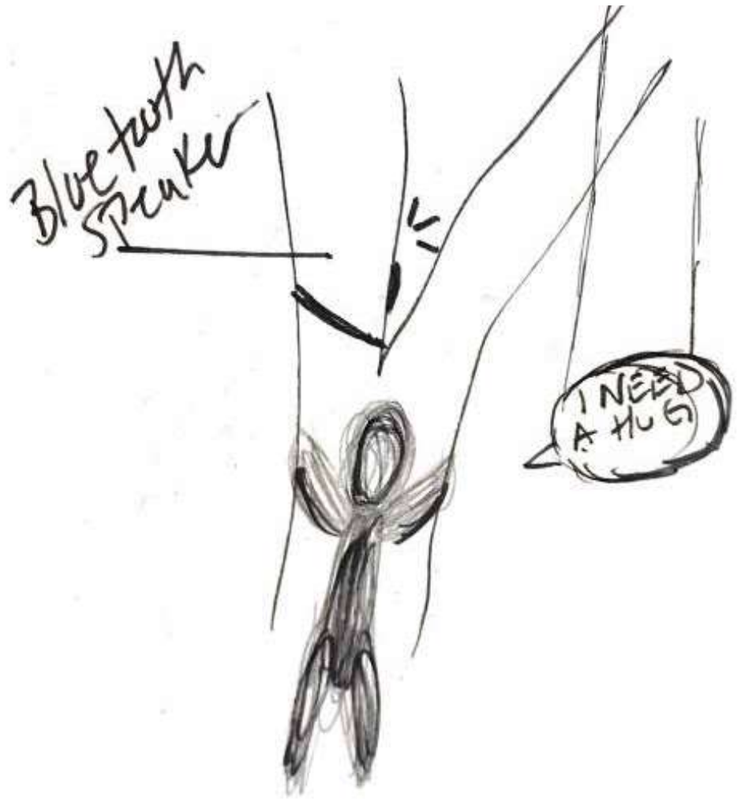
- Educate the participants about the privet tree.
- Provide a fun, quick, and simple activity for the participants to engage in.
- Leave the participants with a memorable experience.

**BRIEF DESCRIPTION OF TREE**

The privet tree is a common tree to the Davis region. It is known to be an invasive species due to its ability to withstand seemingly every condition and its ease to repro-

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**

The participants will see a word bubble sign hanging from the privet tree which states "Hug Me?". The sign prompts the participants go to the tree and hug it. Once the participant is up close and hugging the tree, they will then hear the bluetooth speakers hidden in the higher branches of the tree. The speaker will be facing downward so the audio will be directly overhead the particpants. The audio will be speaking like the tree is telling the participant secrets about itsself and how it is viewed by the wildlife and by humans.




Concept Sketches

**RESEARCH**

A privet is a flowering plant usually in the form of a shrub or small - medium sized trees. They are native to Europe, north Africa, and Asia. Some species have become widely naturalized or invasive where introduced. Both the leaves and berries are poisonous to people and animals, and the plant's pollen can cause breathing problems for some people. Birds eat the berries and spread seeds. Seeds falling from clusters sprout quickly beneath the plant. Extremely prolific and fast growing, privet can invade the edges of forest and waste land, and displace trees in our native forests. Privet tolerates a wide range of environmental conditions, for example, dry, cold and wet conditions, and grows anywhere from fifteen- to thirty-feet tall.

**LOOKBOOK**


Example of how the sign will be hung

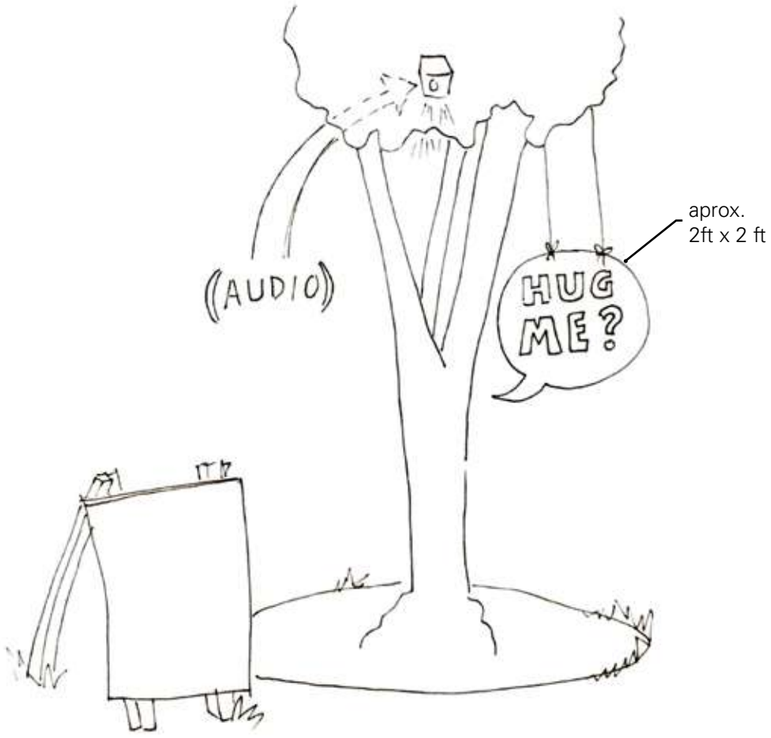
Listening to the privet

An example of a range of participants hugging the tree and listening to it speak

An example of a team listening to what the privet has to say

Privet tree in College Park

## DESIGN DETAILS AND RENDERINGS




Bluetooth speaker, Hug Me? sign and A-Frame street sign.


Near street view of a participant engaging in the activity.

The bluetooth speaker will be in the higher branches of the tree. A ladder would be needed in order for the speaker to be placed. The speaker will be facing down following the trunk for the participants to hear. Twine will be used to fully secure the small speaker in the branches.

The Hug Me? sign will be hung with fishing line off of the higher branches as well to achieve a floating speech bubble effect. The sign will be made from foam core and secured in two places so that the sign does not spin.

An additional A-frame sign would be placed by the street to show the participants that they have found the right place.

Berry Fresh

### COLOR PALETTE

ACCENT 1 ACCENT 2

### MATERIALS

1/4" Plywood

Vinyl Lettering

Fishing Line

Bluetooth Speaker


# What's My Grafting Practice?

405 Antioch Dr. Davis, Ca 95616

**CLUE**

This is one of Davis's most unusal trees. The story goes that Dr. Phil Barker grafted a European Hornbeam onto the parent to make the "chinning tree". He calls it the chinning tree because the tree resembles a pull-up bar.

**MAIN MESSAGE**

The Chinning tree is a result of one of the grafting practices.

**GOALS AND OBJECTIVES**

- Participants will identify the three main grafting practices using images
-Participants will have fun while learning about grafting
-Participants will leave the station seeking to learn more about grafting

**BRIEF DESCRIPTION OF TREE**

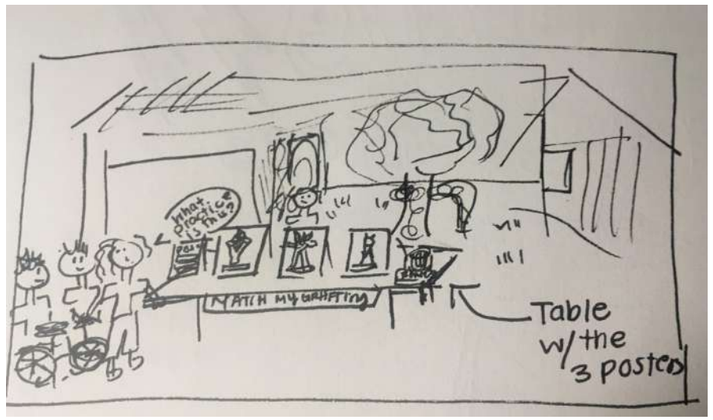
The European Hornbeam in Davis has a story of it's own. The "chinning tree" was grafted as a form of experimentation to save the Kentucky Expresso coffee tree. Not to mention that the tree itself is resistant to the urban climate.

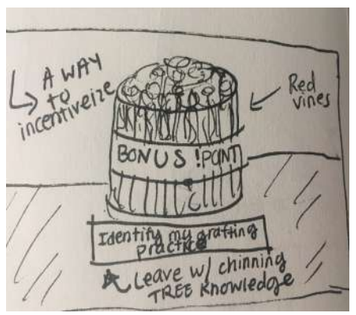
**DESCRIPTION OF EXPERIENTIAL ACTIVITY**

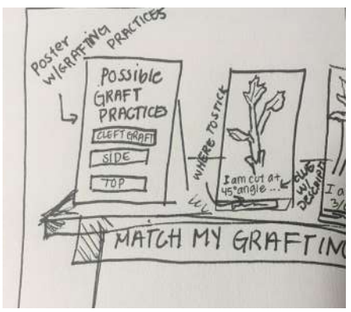
Participants will be given 30 secs to match the right grafting practice to the tree and will have the chance to win a bonus point by identifying what grafting practice was used on the Chinning Tree. If they answer correctly they will be given a red vine as a prize.

**RESEARCH**

The clue was made for the Grafted European Hornbeam. The tree is native to Western Asia, Europe, and Southern England. However it was grafted into another tree which truly differentiates it from the rest of the trees in the scavenger hunt.
Grafting is a technical skill that requires an understanding of a specific method. Thus, in creating an activity not only is it important that participants are aware of the practice of grafting, but also the different types of grafting practices. The best way to show this is through visuals.
Furthermore, when thinking about the activity a site analysis was conducted. The conclusion was made that the tree sitting on a residencial neighborhood raises safety concerns. Therefore having a simple activity and that is easy to contain would work best.



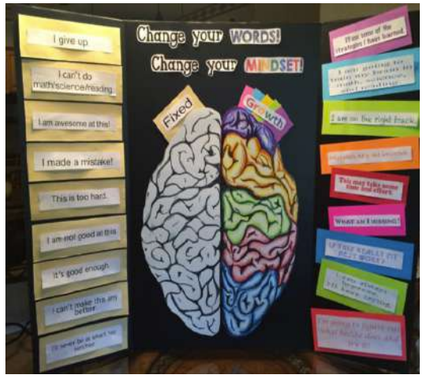



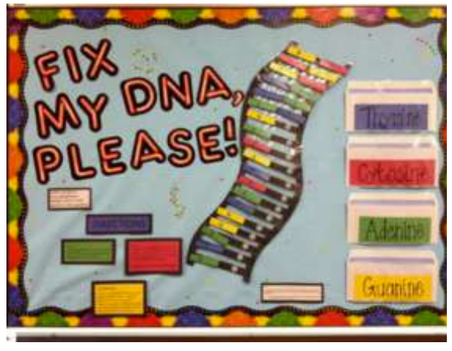

Concept Sketches

**LOOKBOOK**


The poster is a reflection of the arrangement of the poster.



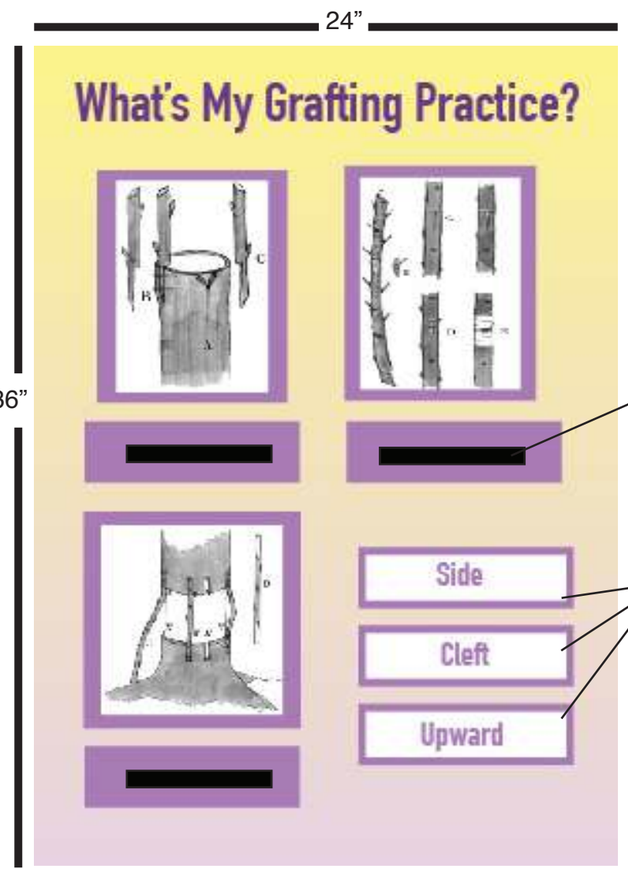

The trifold represents the vision of taking a name and matching it to an answer.




The poster is an example how to use color effectively.


The image represents the initial concept of matching images.


The European Hornbeam.




The image represents the intended designed graphic.


The image shows the poster in relation to a person.

The image shows the overall set up of the interactive activity.


The image represents the action of placing the label below the image.

## COLOR PALETTE

Grape Vibes


## MATERIALS

Velcro

Matte Board

Easel

Twizzlers


# HOW TALL AM I?

518 ANTIOCH DR, DAVIS, CA, 95616

**CLUE**
The scarlet oak is on the same street as the chinning tree. Keep heading west and see this magnificent tree planted in 1972. The scarlet oak stands 96 feet tall with the girth of 10.5 feet and a 100 foot crown. In the fall this tree turns a brilliant red.

**MAIN MESSAGE** How to measure the height of the tree and educate the community the benefits of big canopy trees!

**GOALS AND OBJECTIVES**
- Teach the community how to measure the height of a tree using simple tools.
- What are the benefits of big canopy trees in urban settings.
- Learn about the Scarlet Oak.

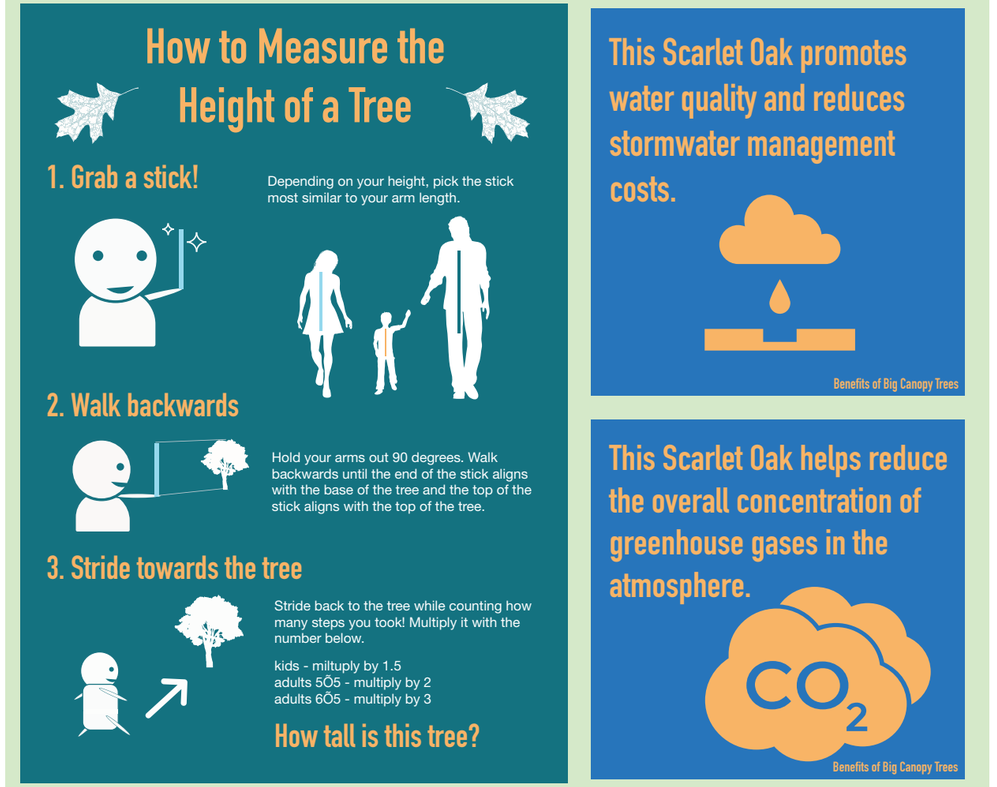
**BRIEF DESCRIPTION OF TREE**
The scarlet oak, also known as Quercus coccinea, is mainly native to central and eastern United States. It grows best in a dry and sandy environment with acidic soils. It is a medium - large tree and could grow up to 67 - 100 feet tall. The leaves are glossy and green, but during the fall, they become a bright scarlet color. Because of its beautiful color, the scarlet oak is sometimes planted as an ornamental tree.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
For my location, I will have a big poster that informs my audience how to measure the height of the scarlet oak with a stick. There will be three sets of sticks, each differentiated based on their length and color. I will be wearing an apron that carried these sticks. Children will be given the orange stick, while adults will be given the blue or the teal stick based on their height. They will measure the based of the tree to the end of the stick and the top of the tree to the top of the stick. Afterward, they will stride back to the tree, counting how many steps they took. With the number, they will multiply it based on the infographics on the poster. As they are walking backwards from the tree, there will be graphics taped on the ground that informs the benefits the scarlet oak brings to the community.

**RESEARCH**

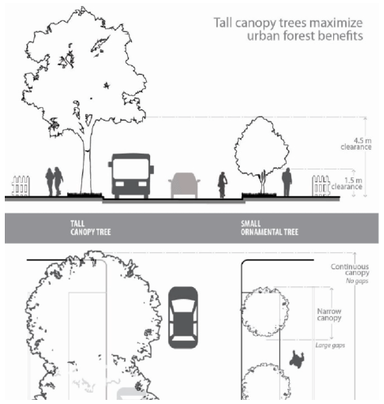
For this project, I researched how to measure the height of the tree. There are many different methods, but to make it simple for my audience, I chose the stick method. To be as accurate as possible, one will need a stick similar length to their arm. They will hold the stick up in a 90 degree angle; while walking backwards, they will be matching the end of the stick to the base of the tree and the top of the stick to the top of the tree. They will take strides back to the tree, counting the steps. Because everyone is different and the average stride is around 2 feet, I separate my audience based on their age and height.

I also did some research on the benefits of canopy trees in urban settings. Climate change has been around for a while, but trees like the scarlet oak could reduce the overall concentration of greenhouse gases. They are also natural air conditioners as a single tree could produce cooling effect; it also explains why so many people parked under it during the summer!

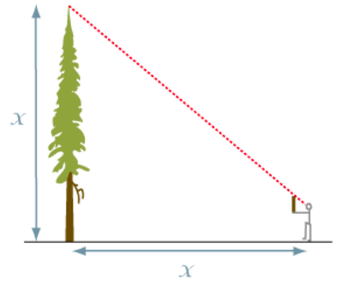



Concept Sketches

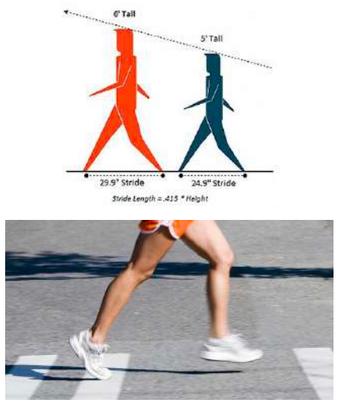
**LOOKBOOK**




Benefits of Canopy Trees

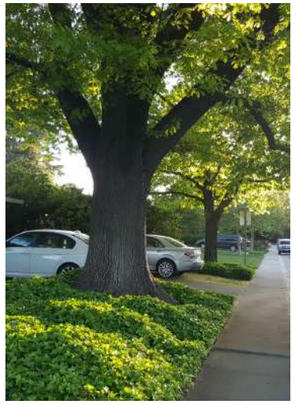



Measuring the height of tree



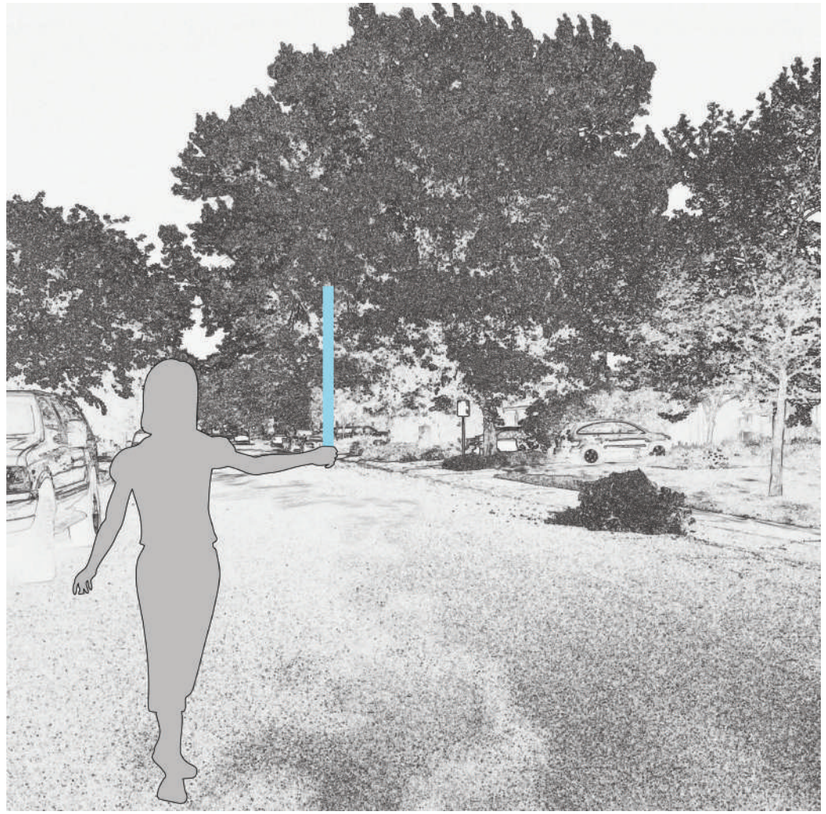

Everyone has different stride length

Wooden sticks used to measure the tree



Scarlet Oak

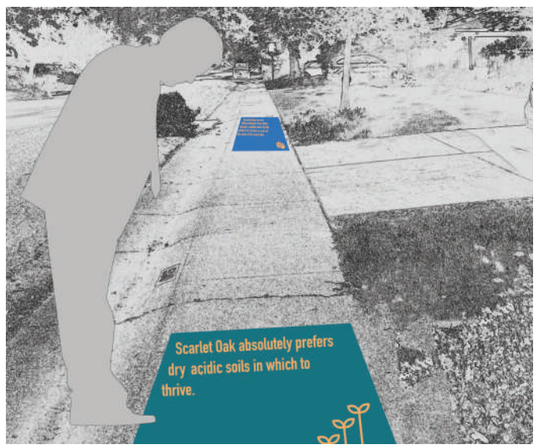
## DESIGN DETAILS AND RENDERINGS



Measure height with a stick


When people arrive to my location

When people arrive to my station, there will be a poster on the scarlet oak tree. The infographics are informing them how to measure the height of the tree with a stick. Based on their height, I will give them a stick that correspond with their arm length. Children will be given an orange stick, adults around 5'5ft will be light blue, and adults who are 6'5ft will be given a teal stick. They will measure height by holding up the stick in a 90 degree angle. The end of the stick should correspond with the base of the tree. They will walk away from the tree until the top of the stick corresponds to the top of the tree. They will then stride back to the tree, counting the steps. Children will multiply their steps by 1.5, adults 5'5ft will multiply by 2, while those who are 6'5ft will multiply by 3. That would be the height of the tree. As they walk down the street, there will be infographics that inform them how this scarlet oak benefits urban settings.




Person reading infographics about scarlet oaks


How the infographics will look

Orange Dream

### COLOR PALETTE

ACCENT 1 ACCENT 2

### MATERIALS

- Wooden sticks
- Paint
- A0 poster with infographics
- Printed infographics for ground
- Apron to hold sticks


# WILL YOU BE AN ADVOCATE FOR PROPER TREE PLANTING?

1001 Anderson Rd, Davis, CA 95616

**CLUE**
Davis has many parks with tree names. Find the park named after this sequoioideae.

**MAIN MESSAGE**
Redwoods are not well suited to urban environments.

**GOALS AND OBJECTIVES**
- Craft a takeaway message around advocacy for responsible tree planting in urban areas
- Limit activity so it takes no longer than 2 minutes to complete
- Create a group, participatory experience where every team member can work at once

**BRIEF DESCRIPTION OF TREE**
Native to foggy, coastal Northern California, Redwood trees are the tallest in the world and some of the oldest. They are highly resilient, with fire resistant properties, but not drought resistant, and are supported by an extensive root system. These ancient trees are listed as endangered due to logging, forest fire suppression, land conversion, and climate change, among others.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
This station focuses on the theme of advocacy for proper tree planting. Scavenger Hunt Participants will learn about the difficulties Redwood trees face living in an urban environment. Some information will be provided through an infographic. Participants will also fill out a postcard, checking off statements that show they support sustainable tree planting and working with local government to raise this issue in future projects for city planning. Because the cards will be delivered to Davis City Council, participants will feel that they exercised their voice for a worthy cause.


Concept Sketches

## RESEARCH

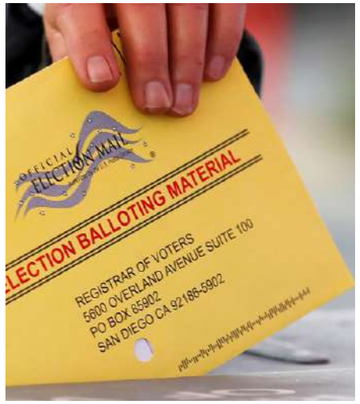
Redwood trees face many stressors in the urban environment, which is far different from their natural habitat. In Davis specifically, stressors include a dry, hot climate and lack of space to grow their roots out. Redwood root systems are shallow, so although they absorb water from the ground, they also need moisture from the air. Coastal fog is nutrient rich and it helps decrease the trees' water loss. Without it, they lack a key source of moisture.

Part of the reason Redwoods are planted in cities is that city planners overlook tree suitability. If proper planting was higher on their list of concerns,we could increase the benefits of trees for our air quality and wildlife.

## LOOKBOOK

View of Eastern entry points

Open grass where the path splits




Active member of society: mail-in ballot with pre-printed address-quick/easy for participants

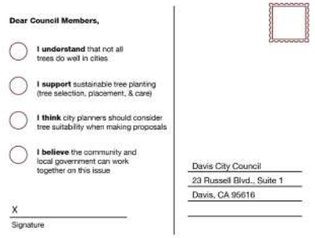
Petition signing: quick table activity; multiple participants at once

collection box: easy for people to understand its function & how to interact with it

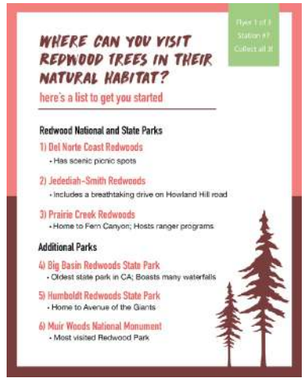
Redwood Tree

## DESIGN DETAILS AND RENDERINGS






Top to Bottom: Postcard Front 1, Postcard Front 2, Postcard Back




(51/2"x 41/4") Informational Handout; tied to other two Redwood stations

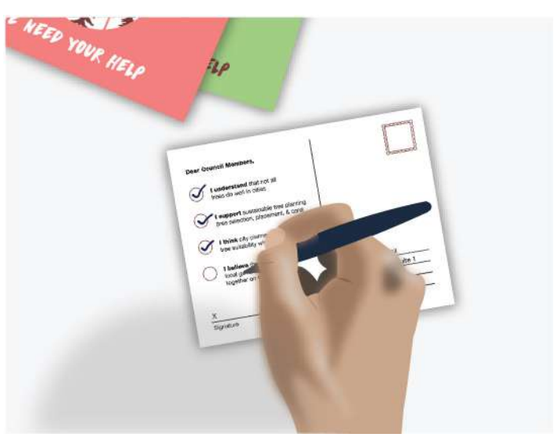

(81/2"x 11") Informational Sign


(81/2"x 11") Instructional Sign

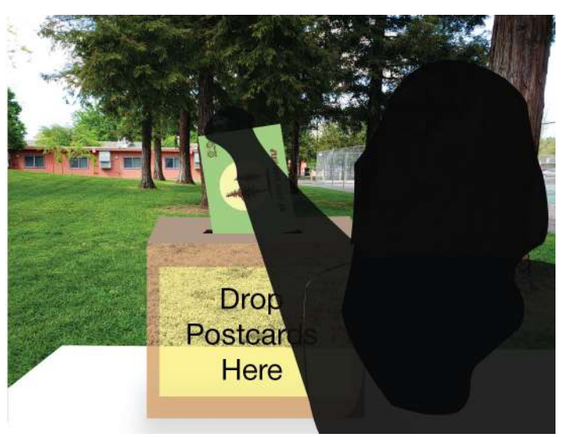

(81/2"x11") Station Identification Sign


Front View: Scavenger Hunt Participants walk up to the activity table

View of entry point-from behind the table



Filling out the postcard




Depositing the postcard

### COLOR PALETTE

Berry Fresh

ACCENT 1 ACCENT 2

### TYPOGRAPHIC CHOICES

TREE NAME – DK DIRRRTY
ABCDEFGHIJKLMNOPQRSTUVWXYZ

HEADER – DIN CONDENSED BOLD
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Body Copy - Helvetica Neue Regular
ABCDEFGHIJKLMNOPQRSTUVWXYZ

### MATERIALS

- 5.5''x 4.25'' Cardstock
- 8.5''x 11'' Printer Paper
- Fold-out Table
- Cardboard Box
- Markers/Pens
- Clear, Plastic sign holders


# Help! Where Can I Travel Next?

1024 Plum Ln Davis, CA 95616

**CLUE**
"I am a 55 year old Italian Stone Pine. Some might say I look like a 100 foot tall bonzai tree. You can find me on a street named after a Fruit. The street name is not prune, but..."

**MAIN MESSAGE** To teach participants about the different Mediterranean Climates locations worldwide.

**GOALS AND OBJECTIVES**
- Have participants leave experience having learned new information.
- Actvity to last less than 2- 3 minutes
- Game that engages the whole team regardless of participant's age.

**BRIEF DESCRIPTION OF TREE**
The Pinus pinea , more commonly known as the Italian stone pine tree, is an ornamental evergreen with a full, high canopy.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
Upon arriving at the station, the participants will be meet the Italian Stone Pine at the location. The tree will be presented as a character named Matteo Pinaceae. Matteo will ask the participants to help find/fix his map. Each team will have to find 6 oversized and color-coded puzzle pieces located around the tree's site location and piece the puzzle together. When put together, these puzzle pieces reveal all the different locations worldwide that Mediterranean Climates are located. After completely assembling the puzzle together correctly, the teams has to tell the Matteo and the facilitator of the game all the locations where there are Medditerrian climates. Once they complete this, they have won the game and will be able to receive a stamp.

Concept Sketches

**RESEARCH**

Italian Stone Pines's canopy closely resembles an umbrella and because of this the Italian stone pine as also been nicknamed the umbrella pine.

These pine trees are native to southern Europe and Turkey, and prefer warm, dry climates. In particular they prefer Mediterrian climates (dry summers and wet winters).

A full list of Areas Worldide that have Mediterranean Climates:

California & Northern Baja California
Central Chile
West Cape, South Africa
Southwest Australia
South Australia
Mediterranean Basin

**LOOKBOOK**


Image of different Mediterrianean Climates World-Wide

Inspiration when Brainstorming Team Games

Pulling from popular cartoons to personifying my tree and engaging younger audience

Italian Stone Pine

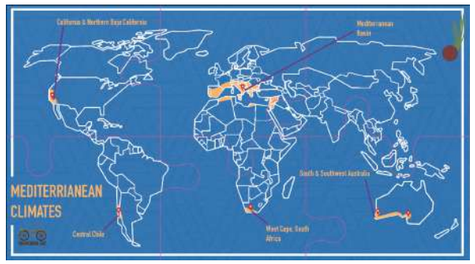
## DESIGN DETAILS AND RENDERINGS

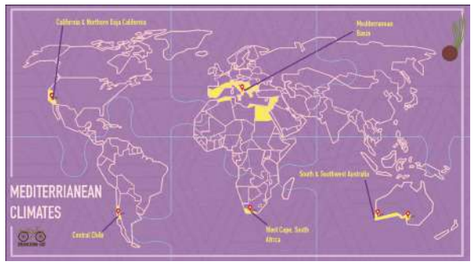
Cardboard 18”x 20”- This messurement represents the full size of the map. Each individual puzzle piece is roughly 6” x 6.5”.


Vinyl Printing 18”x 20”

Rendering of ‘Help! Where can I travel Next?’


Map Design w/o Puzzle outline


Designs of different maps with puzzle shape outline

Matteo’s Full Script for Activity:

Hello, My name is Matteo Pinaceae and I’m an Italian Stone Pine! I am from the areas around the Mediterranean Sea. Just like Italy, California has a mediterranean climate- dry summers and mild & wet winters. Help me unscramble the map pieces to find the Mediterranean climate, where my friends live.


How Matteo’s Script Is Displaced during the Actvity + ‘TO WIN’ Sign


Matteo’s Character design Body Parts


# What Is The Wood Wide Web?

Sycamore Park

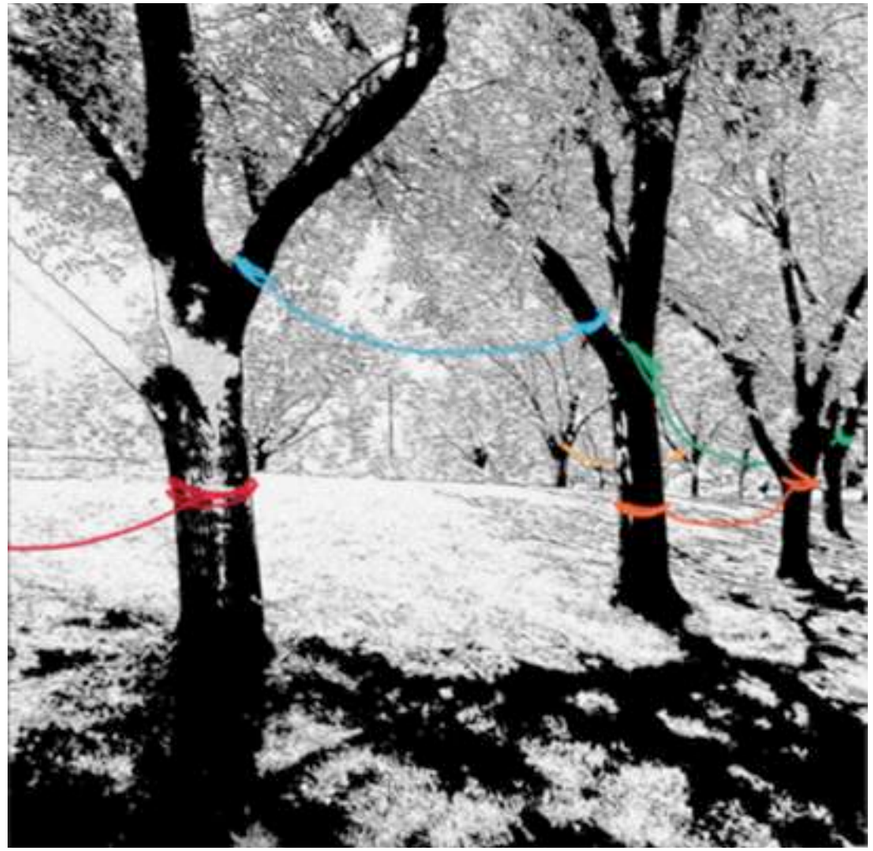
**CLUE**
Wow! Davis residents must really love me, because they named a street after me and also a park. So who am I? We just met so please use my formal name, Platanus acerfolia.

**MAIN MESSAGE** Show the underground connection between the trees above the ground.

**GOALS AND OBJECTIVES**
- Fun, colorful, and simple to understand activity.

**BRIEF DESCRIPTION OF TREE**
Sycamore trees (Platanus acerfolia) make handsome shade trees for large landscapes. The most striking feature of the tree is the bark that has a camouflage pattern comprised of gray-brown outer bark that peels off in patches to reveal the light gray or white wood beneath.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
- Group arrives at Sycamore Park and see a Cable Guy waving them over.
- Cable Guy tells them he needs your help connecting the trees. (See Script)
- Hands them a spool of yarn and scissors, instructing them to connect two trees.
- Group winds yarn around a tree trunk, and connects it to another tree trunk.
- Group returns materials to Cable Guy.
- Cable Guy gives them a piece of string to tie around their bike handlebar.
- "Remember: We're all connected."



Concept Sketches

**LOOKBOOK**

Takeaway for participants

Potential implementation

**COLOR PALETTE**

Orange Dream

ACCENT 1 ACCENT 2

**MATERIALS**

- Colorful yarn
- Scissors (5 pairs)
- string = takeaway
- a good attitude!


Script:
"I need your help. I'm working with XFiniTree trying to finish upgrading the network between all of these trees."

(points to the trees)

"There's a vast network underground of fungi connecting the roots of all the neighboring trees. This is important to know because what happens to one tree affects the resources of all the neighboring trees. As my new above-ground workers, I need your help to show the Davis residents this network by taking this Fiber Optic cable"

(hands them a spool of yarn and scissors)

"And connecting the trees together. Connect trees that don't already have a connection. Two trees is the minimum, but feel free to use your imagination, and let me know if you need any help. Bring me what's left when you're done."

Takeaway: String as reminder


# What More Do You Want?

Eric E. Conn Acacia Grove Davis, CA 95616

**CLUE**
This grove is named after Dr. Eric E. Conn who became an internationally-recognized expert on acacias. Acacia Conniana, a species he discovered, was named after him. Find his grove and see the more than 50 species of acacias from Australia, Africa, and the Americas.

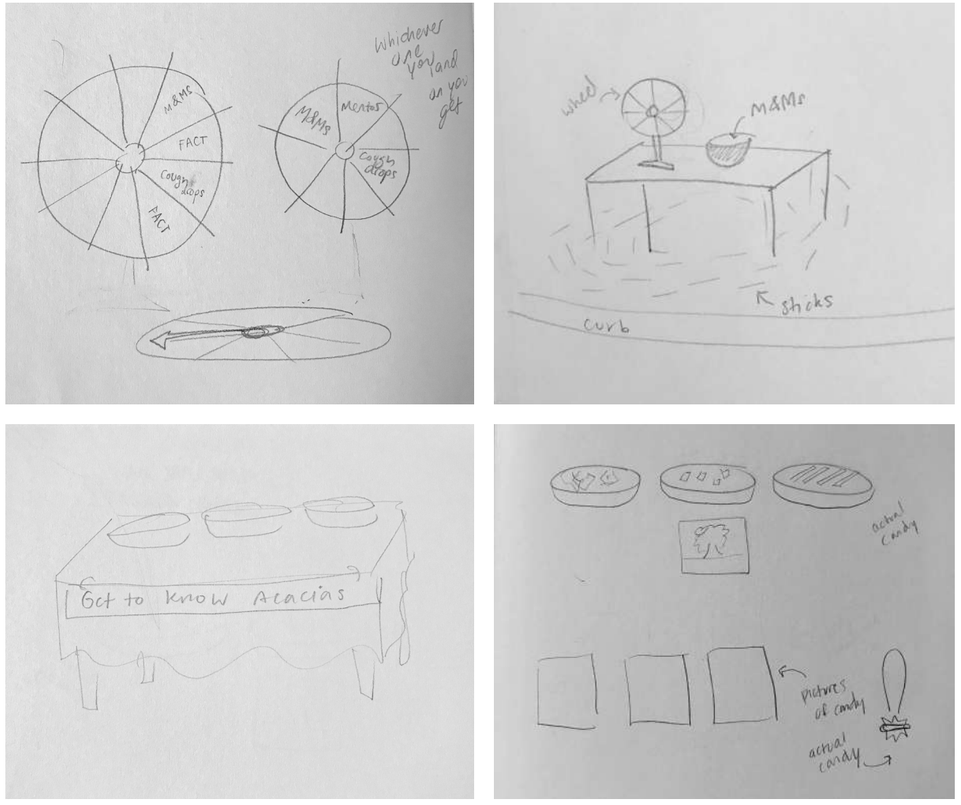
**MAIN MESSAGE** Trees are beneficial in more ways then people realize!

**GOALS AND OBJECTIVES**
- Get bikers to understand how important trees are to the human race
- Trees serve multiple uses & should be valued for it
- Conserve trees & learn how trees, like the Acacia, can impact one's daily life

**BRIEF DESCRIPTION OF TREE**
Acacia Grove is home to over 50 species of Acacia trees and shrubs. A common characteristics of an acacia tree is its feather-like leafstalk, small fuzzy flowers, and legumes.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
In order to receive their proof of visitation, riders must spin the wheel, read/ listen to the information. Each section will note a certain benefit from trees in general, but only the Acacia section will have the benefit of M&Ms.

The Acacia trees have many fun facts!
Dr. Seuss' The Lorax is said to be based off of the Acacia Drepanolobium, found primarily in Kenya and its cohabitant the Patas Monkeys. Another fun fact, in Australia Koalas love to hug Acacia trees when it gets warmer. Acacias average almost 7°C colder than the surrounding air.




Concept Sketches

## RESEARCH

Acacias are a highly self sustaining tree/ shrub. They can grow within a rang of different soils such as, sand, clay or even highly acidic soils.
This occurs because heir sturdy roots allow them to reach into the ground for underground water, no matter how dry the land. They are valued to help stabilize the soil in areas threatened by erosion. Therefore, Acacias can be found all over the world!
Acacias grow very quickly but live to be only 20 to 30 years old. Some varieties have flowers that bloom a yellow or gray/ blue color between or during winter and early spring. Acacias are very popular amongst gardeners.
These trees are used fairly often for cosmetics, medicine, consumption, and furniture building.

https://www.sciencedaily.com/
https://www.gardeningknowhow.com/
http://www.cifor.org/forestsasia/role-acacias/

## LOOKBOOK

Image of a tabletop wheel, similar to the one that will be used for the event.

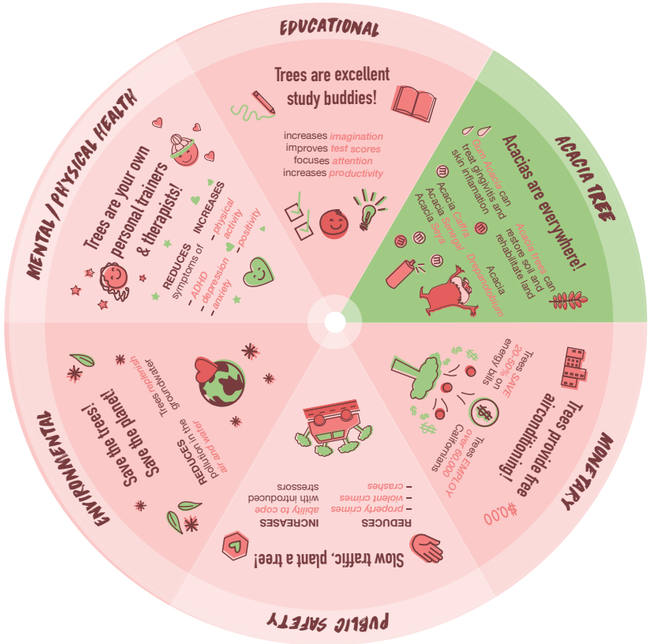

Infographic about the benefits of growing trees in a community.


M&M candies contain Gum Acacia, a product of a few Acacia trees;

Picture of Gum Acacia.

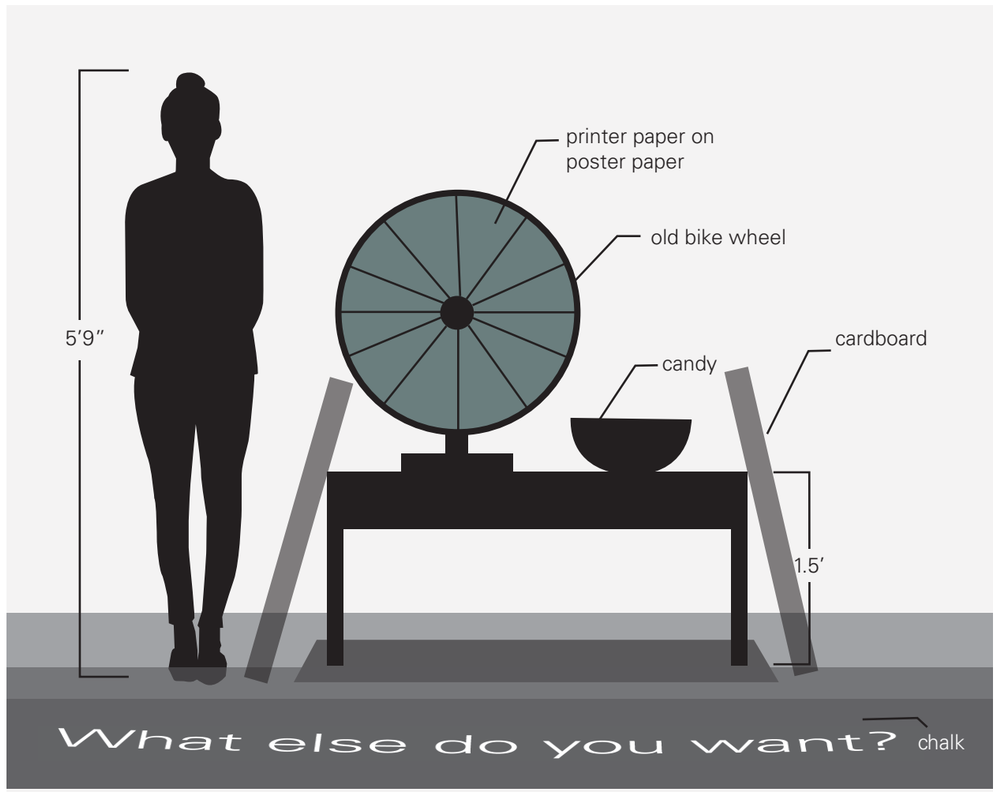
Acacia Sengal, this tree can produce Gum Acacia.

## DESIGN DETAILS AND RENDERINGS




Wheel Graphic: Mental/Physical Health, Environmental, Public Safety, Educational and Acacia Tree.

3D Rendering of location and layout




Elevation of activity and location with call-outs and measurements for comparison

The wheel will contain all of the information. As they land on a benefit they can read the section, as well as listen to the supplemental facts I will be sprouting to them.

The wheel incorporates the graphic standard uses DK Dirrty for titles and Din Condensed Bold for the main information. Additionally, Helvetica Neue for short information.

The wheel will also contain icons to further convey the information. The iconography is going off of the logo design, using lines to mimic a friendly style as well as bike routes. The use of solid shapes links back to the color palette and focusing on those combinations.

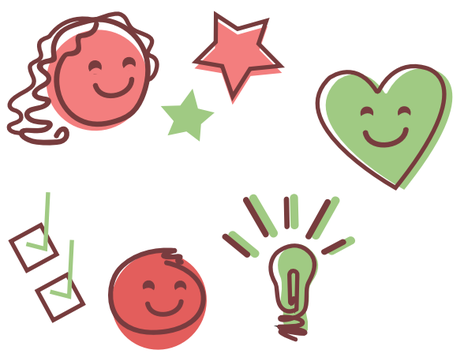
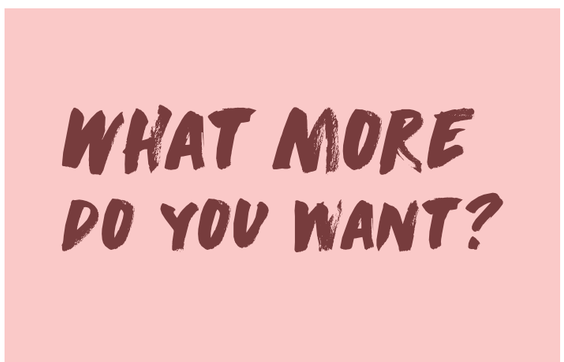


Illustration style for icons, changes depending on content




Title name, one of 2 signs for the main site. Not including 2 other directional signs placed around the grove

**COLOR PALETTE**

Berry Fresh

ACCENT 1 ACCENT 2

**MATERIALS**

- M & Ms (individual packs) over 50 packs
- bench (made out of acacia wood)
- spinning wheel
- cardboard
- ice chest
- chalk
- yarn


# WHICH TREE IS THE BEST SAILOR OF THEM ALL?

ORCHARD PARK DRIVE, DAVIS CA 95616

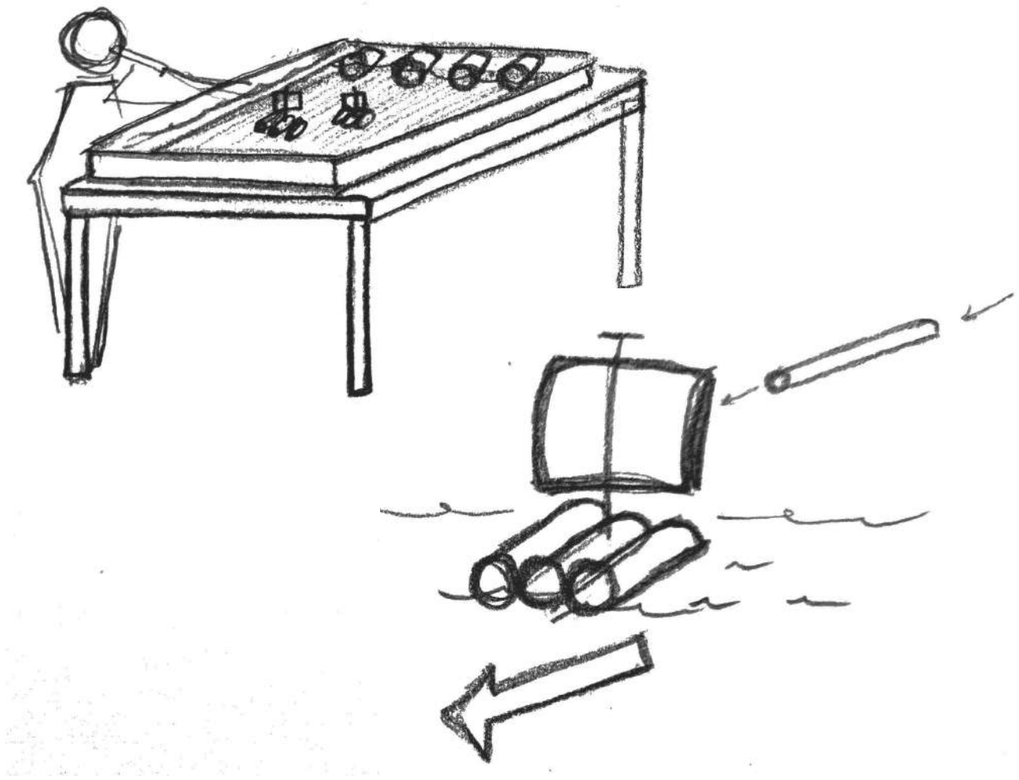
**CLUE**
My bark texture is difficult to overlook. Every seven to ten years you remove my bark and use it to make wine bottle stoppers and the center of cricket balls. While you may see me throughout Davis, come to the Orchard Park Project site by the Domes that were built in the 1970s.

**MAIN MESSAGE** Cork Oaks produce the cork material used in many of our everyday objects.

**GOALS AND OBJECTIVES**
- Give participants to directly interact with cork in a fun way, emphasizing that this material was produced by the surrounding trees.

**BRIEF DESCRIPTION OF TREE**
Cork Oak is the primary source of cork that is commonly used for wine bottle stoppers, coasters, and the core of cricket balls. The bark is harvested every seven to ten years without the use of machinery. Likewise, the tree is neither harmed nor removed in the harvesting procedure.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
Each participant will be provided a mini sail boat made out of cork. The boats will be placed at one end the of the water table, which marks the starting line. The facilitator will ask a question about Cork oaks, and there will be multiple answers at the end of the table. The participants must figure out the answer and then blow their boat (with or without a straw) to the correct answer, which will be marked by a cup that represents a loading dock.



Concept Sketches

## RESEARCH

SITE NARRATIVE:
- These trees, along with other Cork Oaks in Davis, were likely planted during the World Wars
- Cork Oaks were increasingly planted before the invention of plastic, especially during the Wars
- Planting Cork Oaks was seen as a patriotic movement
- This site will be transformed into affordable housing for students and their families
- The Housing Project will be designed to preserve all the hertiage oaks on site

TREE CHARACTERISTICS:
- Primary source of cork
- Trees are not harmed or removed when harvesting the bark
- The bark of one tree can harvested every 7 to 10 years
- Cork harvesting is dependent solely by human labor and without machinery
- This species tends to live over 200 years
- Trees can grow up to 66 feet

## LOOKBOOK

Form and construction of cork boats

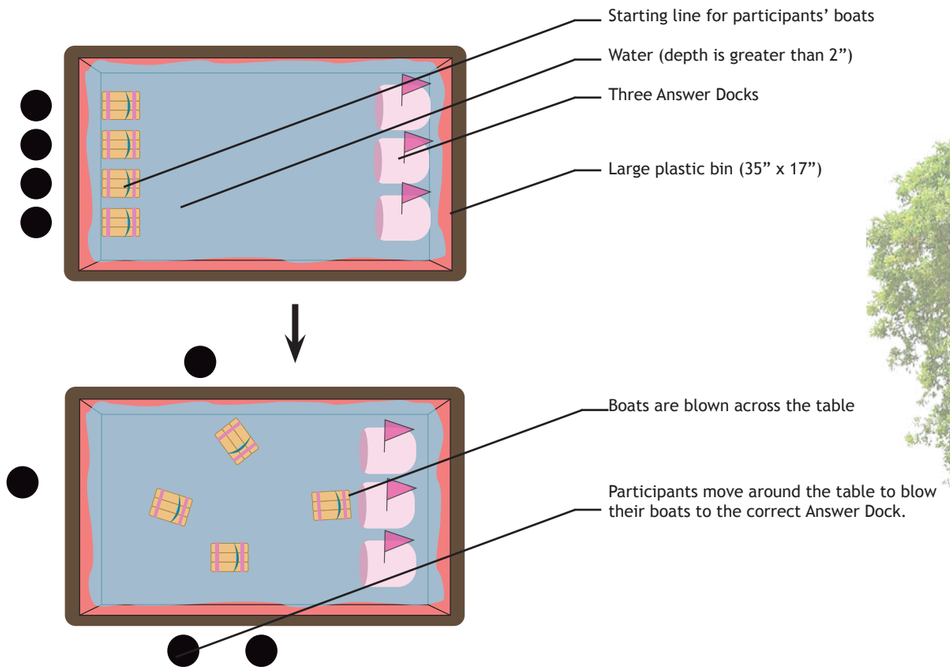
Example of kid blowing his boat with straw

Example of kids using straws to move their boats across water

Container for holding water

There are 3 cork oaks at the station location

## DESIGN DETAILS AND RENDERINGS




PLAN: water table and movement

SECTION OF SETUP: two tables will be positioned between the three Cork Oaks, allowing multiple teams to complete the station as needed

Cork boats

Participants begin at the end of the container

Participants move with their boat across the table and guide them into the correct answer (note: there is only one answer in this prototype race)

Grape Vibes

### COLOR PALETTE

ACCENT 1 ACCENT 2

### MATERIALS

- Wine bottle stoppers
- Rubber bands
- Cork sheets (cut into squares)
- Pins
- Tables (2)
- Under-bed storage containers (2)
- Water
- Cups


# ARE YOU TALLER THAN A REDWOOD?

Weier Redwood Grove, The Arboretum

**CLUE #12**
The T. Elliot Weier is one of the largest collections of this type of tree living outside their native range. The tall trees create a shady, silent, cathedral-like atmosphere just a few minutes' walk from central campus. The grove is named for Dr. T. Elliot Weier, a professor of botany at UC Davis who helped establish the Arboretum in 1936.

**MAIN MESSAGE**
Outside of their native range, Redwood trees don't grow to their full potential

**GOALS AND OBJECTIVES**
- Teach participants that Davis is not a proper place to grow Redwoods
- Give them information about great parks to visit to see Redwoods in their natural range

**BRIEF DESCRIPTION OF TREE**
The tree that will participants will be measured against is right next to the table, pictured below.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
Participants will park their bikes, then walk up to the picnic table. At the table there will be a large graphic, which along with a verbal explination, will encourage the team to cut a string of yarn and tie it around the tree at the height of one of the team members. The more people tie yarn, the more colorful the tree will be! The yarn/height representation against the redwood tree is meant to teach the teams that although the trees in the Davis redwood grove are tall and magnificent, they aren't nearly as tall as redwoods can get in their native range. After they tie the yarn and grab a flyer (one of three, to be collected along with the flyers from the other redwood stations), the teams will receive their stickers/stamps as proof that they visted Station #12.

Concept Sketches

## RESEARCH

According to Julia, the redwoods in Davis struggle to grow to their full height because of the environment locally being so different from their native range.

Their height max in Davis is around 80 feet, while in their native spaces, they can grow to up to 350 feet.

A lot of the research for background knowledge simply came from the graphics already present in the arboretum.

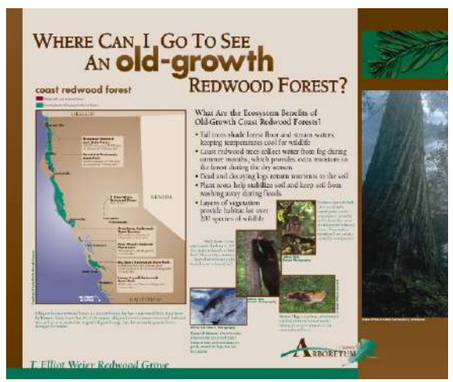
The map used in the flyers is from the Save the Redwoods League, the same as the graphics in the walk through the redwood grove done by the UC Davis Arboretum.

## LOOKBOOK

Bike parking


Inspiration


Above: Map of site
Below: Malena, measuring herself against a redwood near the site



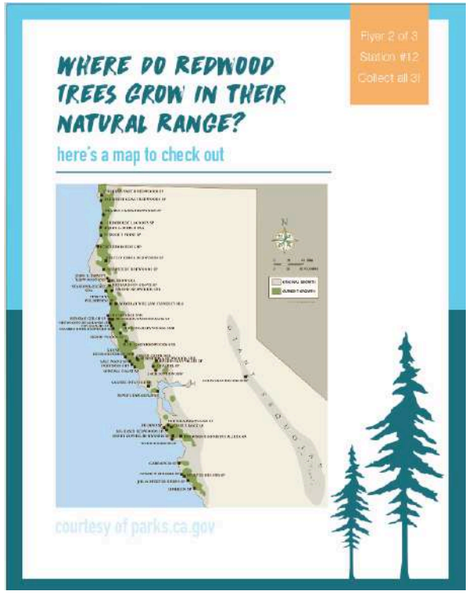

Inspiration for my flyer from the Arboretum's graphics

Another Redwood tree next to the table

## DESIGN DETAILS AND RENDERINGS


Table Set Up

The table




Flyer to be hole punched, then handed out to be hung on bike handle bars


Graphic to be printed and layed on table


### COLOR PALETTE


### MATERIALS

- Yarn
- Yarn Basket
- Scissors
- Flyers
- Printed Graphic
- Proof of participation materials
- Table cloth
- Bluetooth speaker
- Signs to establish bike parking

# How Many of these Seeds will Germinate?

412 C St, Davis, CA

**CLUE**

I am a Coast Redwood planted in 1926 when the mission style sanctuary building next to me was completed. I am 110' tall and growing outside of the only Presbyterian Church in the Country with a full baptistery. My species is among the oldest things on Earth. We live over 2,000 years and can reach up to 380 feet in height.

**MAIN MESSAGE**

A full grown Coast Redwood tree produces six to eight million seeds a year but only 5% will germinate and actually turn into seedlings.

**GOALS AND OBJECTIVES**

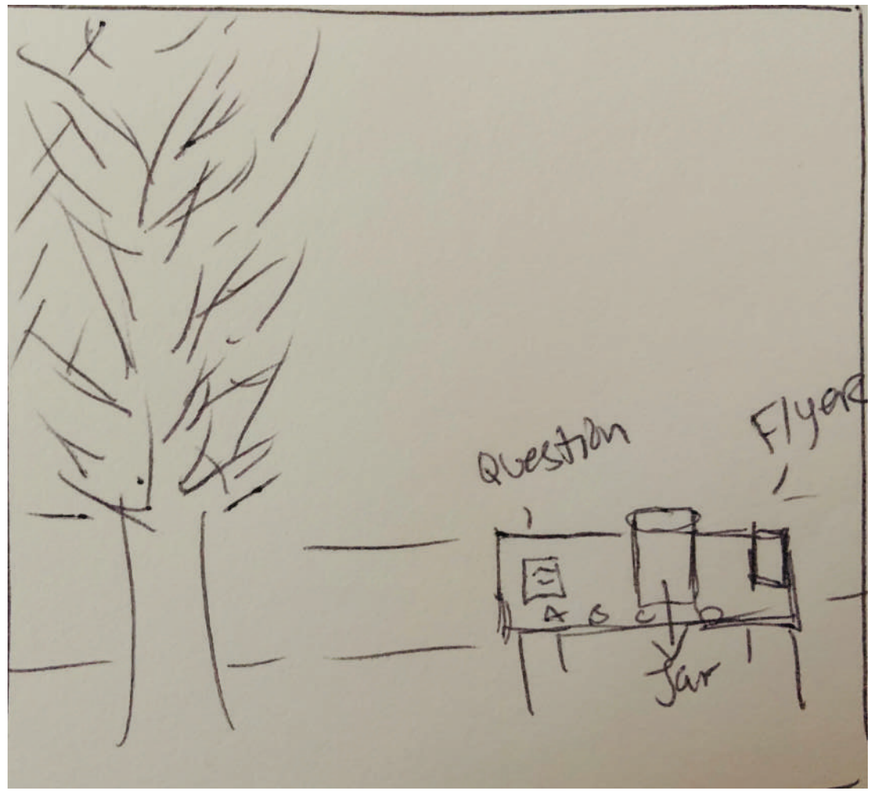
- Realize the size of one seed.
- It is important to have the right living conditions for Redwoods to grow.
- There is a small percentage of seeds that are produced.

**BRIEF DESCRIPTION OF TREE**

The Coast Redwood is one of the world's fastest growing cone-bearing trees. Although the redwood tree's size is massive, redwood cones are very small, only about an inch long. The seeds are equivalent to a grain of rice.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**

A jar of rice grains in the center of a table and teams will guess how many seeds are on a Coast Redwood tree. The question will ask, "Although the Coast Redwood trees are massive and have reached up to 379ft, they come from seeds no bigger than a grain of rice. If this jar is equivalent to Coast Redwood seeds, with proper conditions, what percentage of these seeds will be germinate and actually turn into seedlings?" The choices the team can chose from will be posted on the table as A, B, C, D answers.




Concept Sketches

**RESEARCH**

A full-grown redwood tree will produce six to eight million seeds each year, but the seeds are so tiny that a million seeds weigh only eight pounds. The seeds fall within a few hundred feet of the parent tree; many stay in the litter found in the tree canopies. If conditions are good, it takes about a month for the seeds to begin to grow. However, 95% of the seeds are not viable. Only a very few of the ones that do germinate will actually turn into seedlings.

**LOOKBOOK**

Folding table for jar to be placed on.


Jar filled with seeds to represent the seed similarity

Jar that seeds will be displayed in.

## DESIGN DETAILS AND RENDERINGS

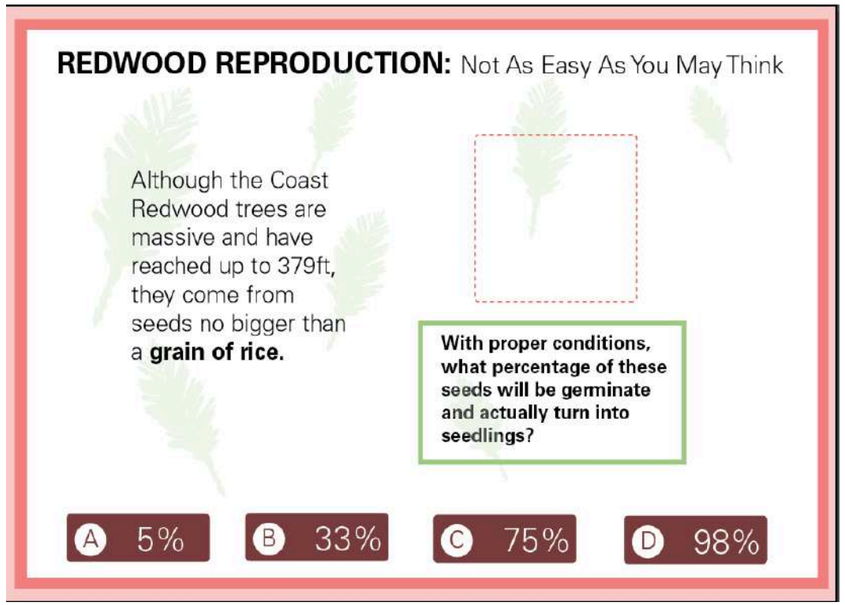



Table Graphic

Jar of Rice


Informational Flyer

How Many Seeds Will Germinate?

Teams will read an informative paper about Coast Redwood trees. Since the seeds of Redwoods are no bigger than a grain of rice, the table will have a jar of rice grains in the middle. Contestants will be guessing how many seeds will actually germinate into seedlings. Teams will have four answers to chose from. They are will be available to take a flyer on how to properly plant a Redwood tree.

### COLOR PALETTE

Berry Fresh


### MATERIALS

- Bag of rice
- Plastic, clear jar
- Printed flyer
- Printing of answer choices
- Printing of question
- Folding table
- Small jar


# How many uses do I have?

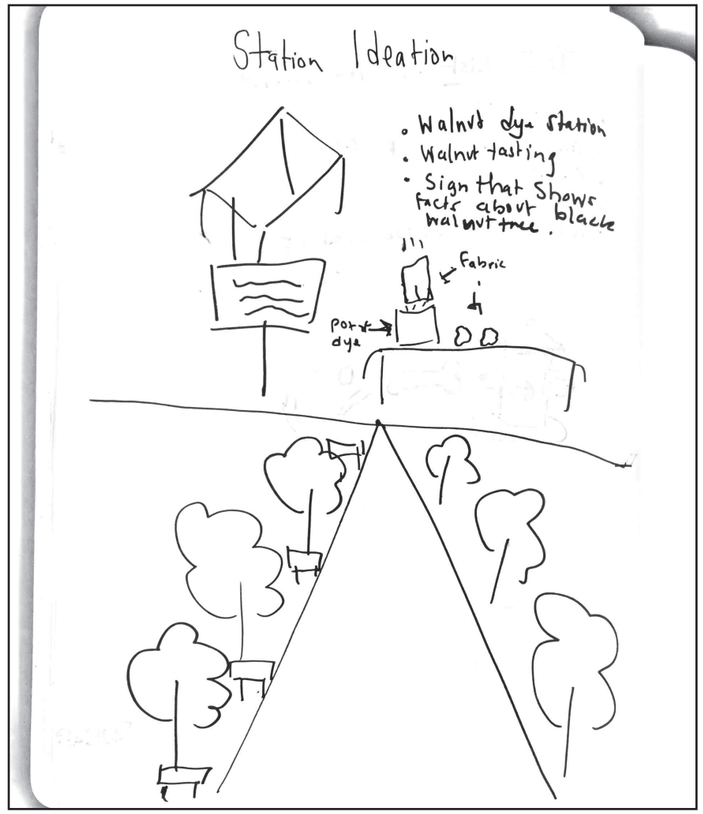
Avenue of Trees

**CLUE**
Created in 1876, just two years after 18 residents petitioned the Yolo County Board of Supervisors to create a road between Davis and Winters. This road is shaded by black walnut trees planted by the LaRue family. Find this section of roadway called the Avenue of Trees and you will find your prize.

**MAIN MESSAGE** To teach people on the significance of the black walnut tree and trees in general.
**GOALS AND OBJECTIVES**
- Teach the history of the tree through activities such as dyign fabrics and walnut tasting
- Help them reach a new understanding of trees
- Having fun!

**BRIEF DESCRIPTION OF TREE**
The Black Walnut is a California native tree that can grow up to 50-75 feet tall. The tree begins to bear walnuts in 12-15 years of its life. The tree is considered a desireable piece of lumber and has been dubbed "best friend" in times of war and peace.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
My station will have an activity on educating the masses about the uses of black walnuts while incorporating Native American Culture as well. I will have a pot of black walnut dye and a few pieces of fabric so that people may dip in the pieces and learn about how dyes were made in used years ago. Before people arrive to my station there will be signs implemented on both sides of the avenue that create a message. That message will read "WALNUITS MAKE ME GO NUTS!" When they arrive to my stationt they will have to give me the answer to the full sentence they saw on the signs. The major takeaway of this activity is for people to apprecaite trees more and their impact in the environment.




Concept Sketches

## RESEARCH

For my station, I wanted to highlight the black walnut and its many uses. Black Walnuts had multiple uses like dyes, food, and paints! Black walnuts also are a great source nutrients. They are high in Omega-3's and a great source of protein. Black walnuts are also known for their sturdy bark and is often seen as a desireable piece of lumber.

## LOOKBOOK

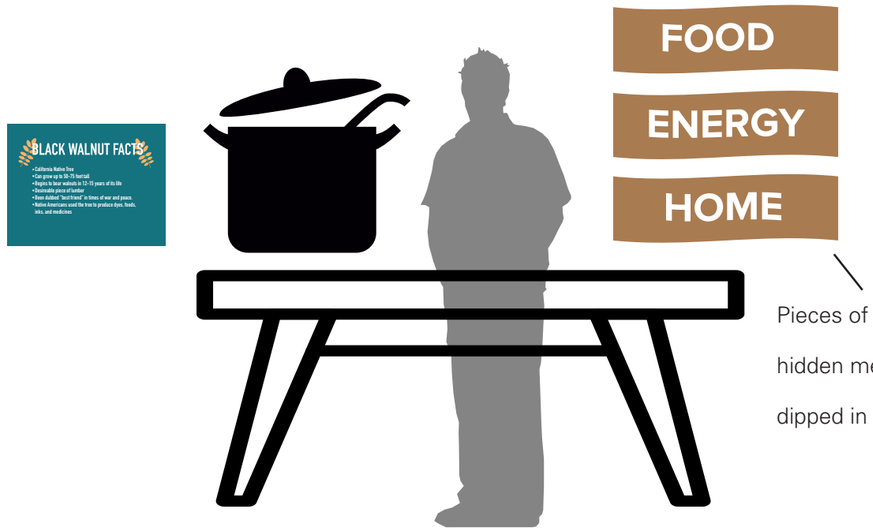
I want to have an activity like dying fabrics so that everyone can participate.


Signage inspiration


I want to model my sigange after lawnsigns. They are cheap and easy to dispose of.

Black Walnut Tree

## DESIGN DETAILS AND RENDERINGS

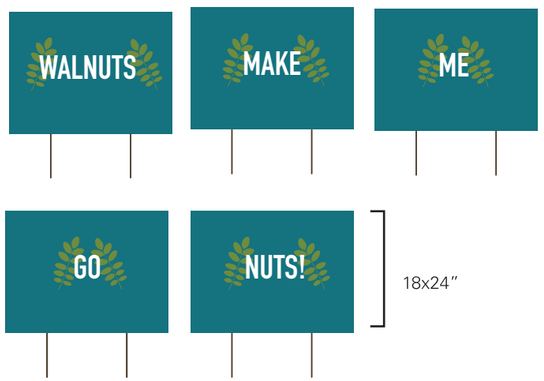



Pieces of fabric reveal hidden message after dipped in the dye.

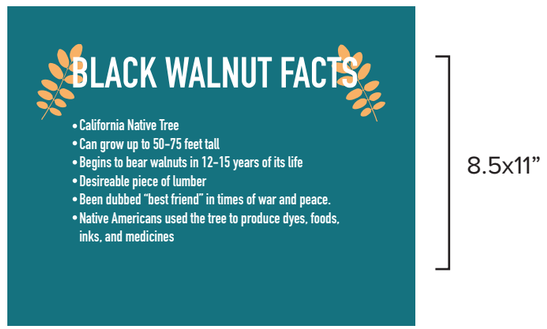
Dye station accompanied by a few facts about the tree.


Signage on the Street

As bikers make their way to the station, they will see a few lawn signs on the bike path. Their job will be to pay attention to each sign and decipher the message. When they arrive, they will be asked to provide the deciphered message. After that, they will be treated to a dyeing exercise using the black walnuts! There they will learn what other uses the black walnuts have as well as general uses for the tree.




Bike Path Signage




Black Walnut Facts Card

Orange Dream

### COLOR PALETTE

ACCENT 1 ACCENT 2

### MATERIALS

Materials:

-Black Walnuts

-Blank Yard signs

-White Fabric

# HOW DO WE USE OLIVES? (THE FRUITS OF OLIVE TREES)

OLIVE TREE LANE

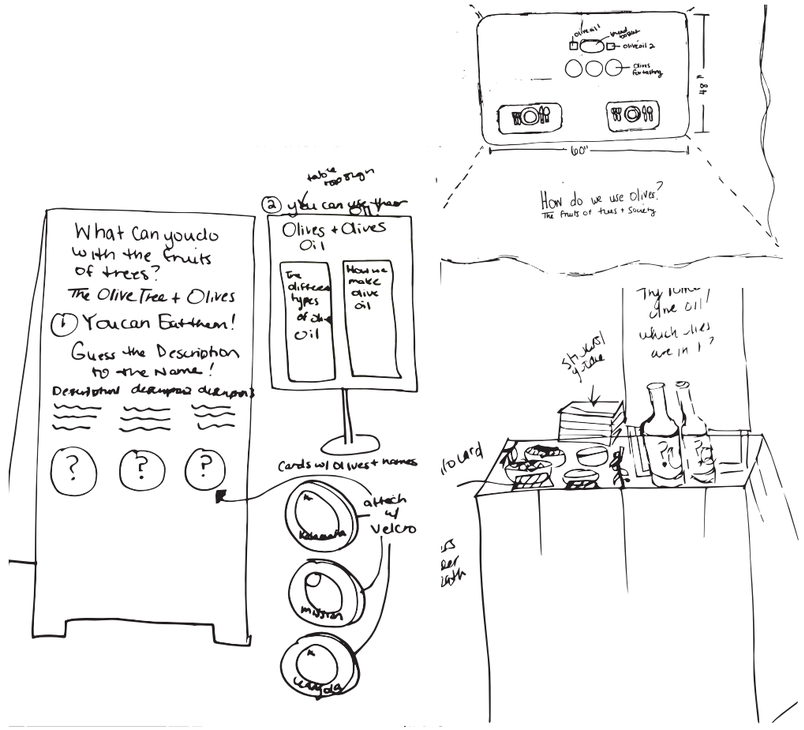
**CLUE**
These trees are not native to the region, but have been in Davis since 1842.
The Wolfskill family is credited with introducing these trees to Davis. Ride your bike on a pathway called _____ Tree Lane on the UC Davis Campus. One more hint – we harvest a lot of these in Davis, bottle it up and sell it. But don't eat the fruit right off the tree, because I am really bitter."

**MAIN MESSAGE** Learn about how the fruits of olive trees have a large societal and impact and connection to the community

**GOALS AND OBJECTIVES**
- Teach about the connection between fruits of trees and the way wehave used them
-Teach about the different uses of olives

**BRIEF DESCRIPTION OF TREE**
Olive Trees grow ina mediterranean climate. Olive trees are evergreen and can grow to 25-30 feet tall, with a spread just as wide. Their oblong leaves are silverish.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
Participants will play a game of matching a clue / description to the answer. The clue will be on a table setting in place of the plate and the participant must find the correct answer in order to reveal their dish. Once they have revealed their dish they havecompleted the activity. There will also be optional olive and olive oil tasting. The aim of this experience is to encompass a 'restaurant in Italy' experience that educates individuals about olive trees, olives and their fruits' impact on society.




Concept Sketches

## RESEARCH

Olives require a mediterranean climate to grow.They require warm summer temperatures as well as about 200 hours of winter temperatures between 45°F and 20°F, Olives are a type of berry.The only difference between green and black olives are what time they're picked.Olives are very high in vitamin E and other powerful antioxidants.Olives cannot be consumed directly from the tree. Harvested olives need to be processed with brine before they become tasteful.

Sources
https://www.saolive.co.za/2018/03/06/15-olive-fun-facts/https://www.healthline.com/nutrition/foods/olives
https://en.wikipedia.org/wiki/Olive

## LOOKBOOK


inspiration for outdoor setting for olive tasting

inspiration for signage

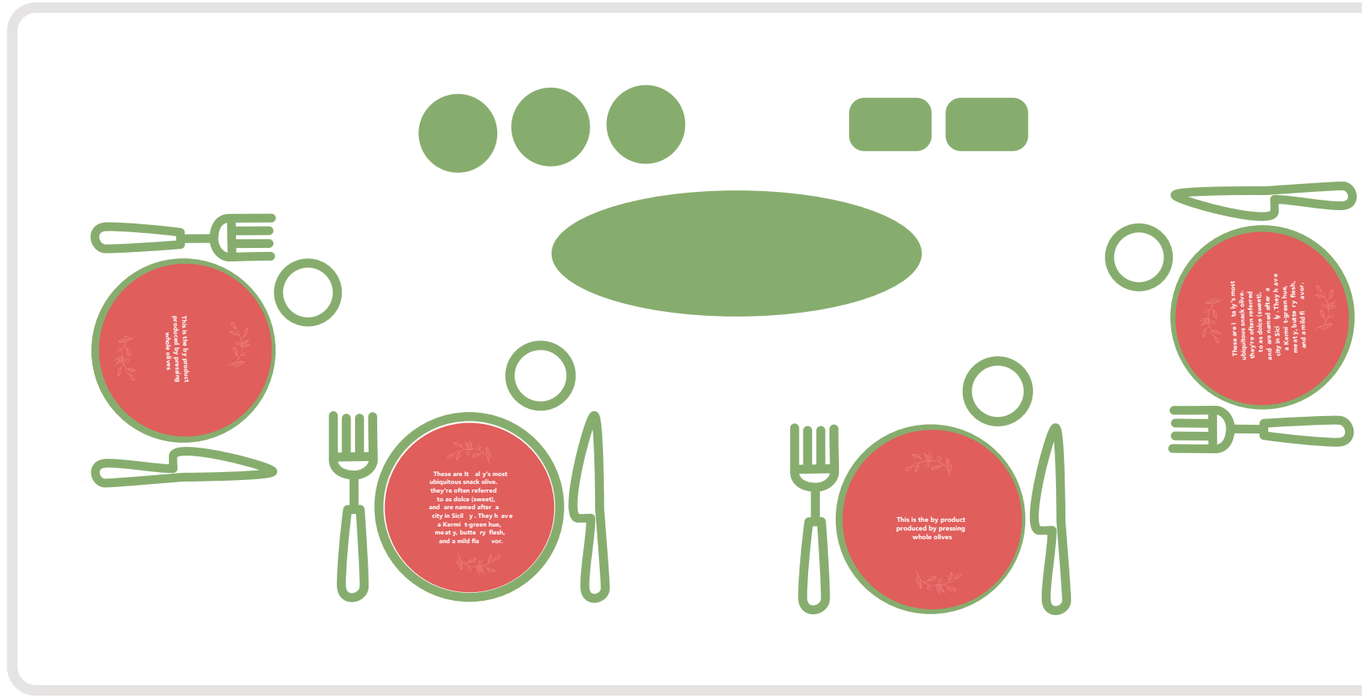

inspiration for table decor


a possible illustration approach


photo of olive tree

## DESIGN DETAILS AND RENDERINGS


In Situ Rendering




Rendering of top of table

The following renderings show the intent for an interactive tablecloth that shows place settings with clues/questions on the plates. The tablecloth will be made of white cloth, with vinyl applique and fabric paint as needed to achieve design intent. A sign will be used to advertise the olive and olive oil tasting. It will be painted with chalkboard paint and and a chalkboard marker. The coasters will be printed using cardstock paper.


Graphic for vinyl application on front of table cloth


Graphic for coasters

### COLOR PALETTE

Berry Fresh

ACCENT 1 ACCENT 2

### MATERIALS

-table cloth
-table
-vinyl
-wood
-chalkboard paint
-chalkboard marker
-cardstock


## Whos Hungry?

Central Park - 5th St & B St, Davis, CA 95616

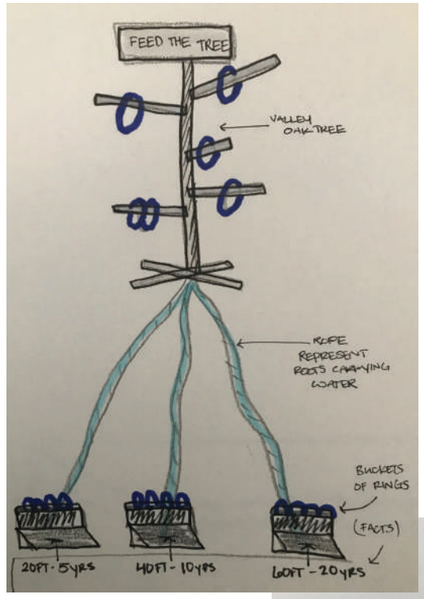
**CLUE**
Find the California native tree that made headlines in 2015 when it dropped a limb at a popular park.

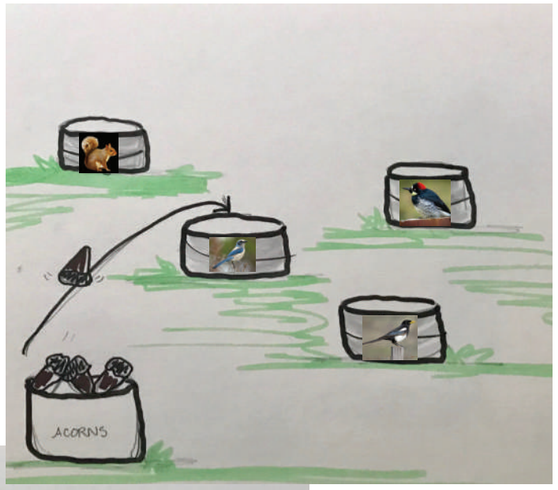
**MAIN MESSAGE :** To learn about the importance of water to Valley Oaks and how its acorns are important to wild life.

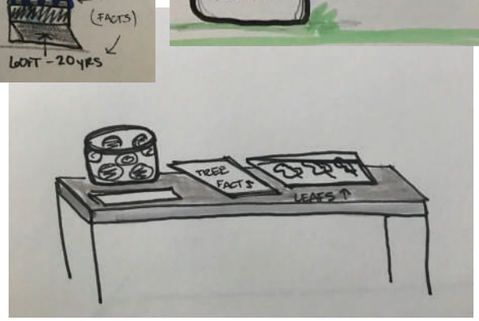
**GOALS AND OBJECTIVES**
--The importance of water through facts
- Display objects that are found on the Valley Oak (Leaves, Acorns, Gall balls)
- The importance of acorns to wildlife

**BRIEF DESCRIPTION OF TREE**
The Valley Oak grows into the largest of North American oaks. It ranges over the hot interior valleys of California where there is a water table within reach of the roots. Valley Oaks grow quickly, reaching 20 feet in 5 years, and 40 feet in 10 years, and up to 60 feet in 20 years. The Valley oak is widely distributed in the California Central Valley and many smaller valleys such as the San Fernando Valley.

**DESCRIPTION OF EXPERIENTIAL ACTIVITY**
Upon arrival guest will be met with a table of small facts about the Valley Oak. On display will be a jar of gall balls. Each Gall ball will have 1 of 2 activites on it, a ring toss game and a bean bag toss game. The ring toss game will discuss the importance or water, root system and tree growth over time. The second game will cover the importance of acorns to wildlife. Participants will have an opportunity to "feed" each animal by tossing acorn styled bean bags into different buckets. Each bucket will have a different animal



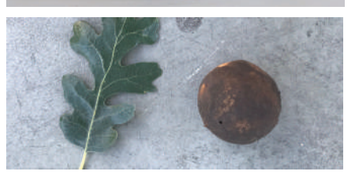




## RESEARCH

- Fall - Lose their leaves "Forest Odor"
- Canopy can reach up to 100 ft wide
- Branches start to droop with age
- Galls: Round, hard shaped balls that hang from tree also known as"Oak Apples" Created from a wasp laying eggs
- Acorns fall in October provide food for: Acorn Woodpecker, Western Scrub Jay, Yellow Billed Magpie, California ground squirrel
- Individual trees produce both male and female flowers and are wind pollinated
- Mature Oaks can produce up to a ton of acorns a year
- Need permanent access to groundwater Can store water for dry periods Need full sun
- The trunk is strong
- Tannic acids in the leafs and bark protect from fungi and invasive insects Holds up against wildfires

## LOOKBOOK

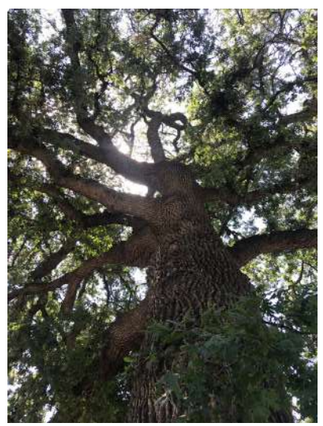


Gall Balls with 1 of 2 activity options

Rings=Water | Poles = Branches


Toss Acorns into bukets to feed the wildlife

Primary animals that benefit from acorns (A different one for each bucket)



Valley Oak Tree

DESIGN DETAILS AND RENDERINGS


Toss the rings onto the tree branches to help it grow

Toss the bean bags (acorns) into the buckets to feed the wild life

CAN GROW
**20FT** IN **5 YEARS**

CAN GROW
**40FT** IN **10 YEARS**

CAN GROW
**60FT** IN **20 YEARS**

Blue or brown rope will be attached to the base of the stand and lay flat on the ground to the buckets of rings. Creates a visual for water being carried to the tree by the roots.

Rings will represent water

An assorment of buckets to hold the rings and information card

Upon arrival guest will be met with a table of small facts about the Valley Oak. On display will be a jar of gall balls. Each Gall ball will have 1 of 2 activites on it, a ring toss game and a bean bag toss game. The ring toss game will discuss the importance or water, root system and tree growth over time. The second game will cover the importance of acorns to wildlife.Participants will have an opportunity to “feed” each animal by tossing acorn styled bean bags into different buckets. Each bucket will have a different animal

Berry Fresh

**COLOR PALETTE**

ACCENT 1 ACCENT 2

**MATERIALS**

(8) Bucket containers
(1) Table
(20) Bean bags
(30) Rings
30 ft Rope
Wooden stand with branches (6ft tall)
(1) Large Jar
Multiple Gall Balls
(3) Table Info posters
(1) Stand up fame - for information
(4) Animal printouts

# Stations in Action


1


2


3


4

1. Sycamore
2. Black Walnut
3. Cork Oak
4. Redwood Grove
5. Valley Oak
6. Coast Redwood
7. Scarlet Oak
8. Italian Stone Pine


5


6


7


8

9. Privet
10. Grafted Hornbeam
11. Acacia Grove
12. Fig Tree
13. Olive Tree
14. Redwood Park
15. Cedar Park
16. Cunningham Beefwood

9


10


11


12

13


14


15


16