



Placer
Nature
Center



Watershed Explorations



Wetland Munchers

4



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Contents

About Us & Our Programs	4
Program Overview	4
Poison Oak	5
Description	5
Reactions	5
What Poison Oak looks like in each season.....	6
Pre-Visit Information	7
In The Classroom	7
On The Trail.....	7
Activity #1: Name Tags	8
Pre-Visit Activities.....	9
Activity #2: Water Riddle	9
Activity #3: Understanding Water	9
Activity #4: Water Word Match	9
Your Field Trip at a Glance	12
WaterShed: Water and Nature	12
Water and Nature - Outside Activity	12
WaterShed: Water and People	Error! Bookmark not defined.
Water and People - Outside Activity	12
WaterShed: Water Conservation.....	Error! Bookmark not defined.
Water Conservation - Outside Activity.....	Error! Bookmark not defined.
Nature Trail	12
Post-Visit Activity	13



About Us & Our Programs

Started as a project of the Placer Land Trust in 1991, today Placer Nature Center functions alone as non-profit organization. We share our 60-acre Auburn site, which is owned by the State of California, with the California Conservation Corps.

Placer Nature Center's mission is to provide educational programs that evoke a sense of discovery and wonder about our place on earth. The work of Placer Nature Center helps us understand that our daily choices impact the environmental, social and economic well being of the planet. This is essential, because a healthy world means the world to us.

Upon request, Placer Nature Center will provide schools with field trips to Placer Nature Center's campus, meet you out in the field and/or deliver presentations in the classroom.

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Program Overview

A team of trained docents use a holistic perspective to present our programs. That is, the total environment – living and non-living – will be studied while students weave together the disciplines in relation to their program theme (represented schematically in Figure 1).

The Placer Nature Center provides a three-part program, including:

- ✎ Pre-visit activities
- ✎ Field trip
 - ☒ Exhibit Hall theme orientation
 - ☒ Hands-on activities
 - ☒ Nature Walk
- ✎ Post-visit activities

Plus other relevant information is also provided to enhance the student's field trip experience.

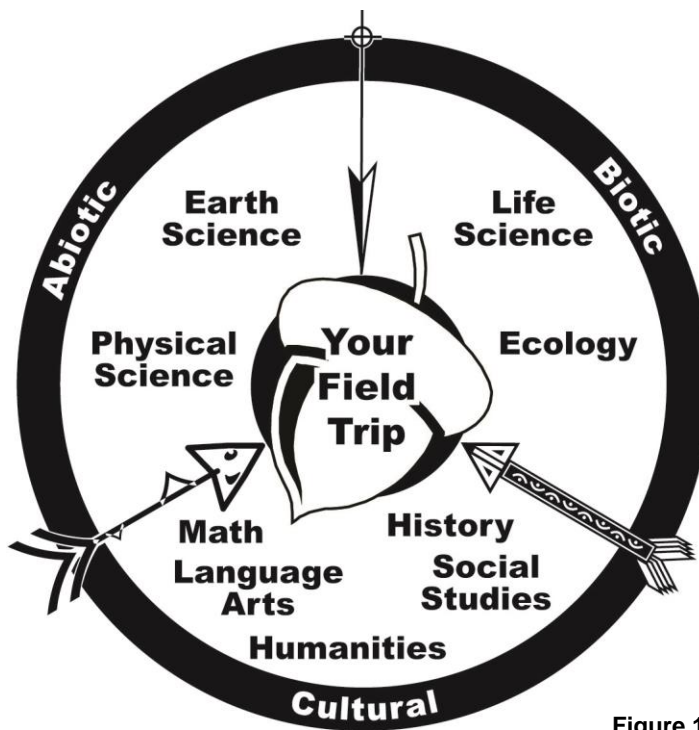


Figure 1.

Poison Oak

Description

Poison oak is a native shrub of the foothills and the Nature Center has many fine examples throughout the nature trail area and even atop the granite outcrop in our courtyard. Because many people react to the plant oil, it is important for our visitors to be able to identify this plant.



New Spring buds on Poison Oak,
pretty but not nice to touch!

Poison oak is not actually an oak although its leaves have an oak-like appearance. It is commonly found among oak trees. The species name, *Rhus diversiloba*, was well chosen as it describes the diversity of lobe shapes and sizes one can find on a leaf. Here is an identification checklist for poison oak:

1. Stems are smooth, with no spines.
2. Each leaf stem has three glossy leaflets.
3. Where the three leaves meet, there is a red spot.

A Nature Center docent will help you to identify this plant. Get to know the poison oak in all its forms: shrub, vine and seasonal variations (more pictures on the next page).

Foothill fauna depend on this native plant: deer browse on it; birds eat its berries; others den, burrow, nest or roost in it. Poison oak is an important part of the foothill ecosystem.

Reactions

Apparently only humans (and not all humans) react to urushiol, an oil found on the plant's stems, leaves, flowers and berries. Contact with this oil can result in a rash. The oil remains active for a long time. Thus, it can pass first onto clothing or animal fur before skin contact and still be capable of forming a rash.

The best prevention against contracting poison oak is to:

1. Learn to identify the plant
2. Avoid touching the plant
3. Wear long sleeves and long pants
4. Stay on the trail
5. Wash thoroughly and immediately upon returning home, both skin and clothes



Leaves of Three, Let them Be!

What Poison Oak looks like in each season



Fall

Mostly red – from bright crimson colors to brown dying leaves.



Winter

A little more tricky to spot! Look for bunches of straight, upright twigs growing near rocks, trees and amongst other shrubbery.



Spring

After the pretty red buds (see previous page), leaves turn a shiny green. May be inter mixed in black berry bushes and other shrubs, hiding under Oak Trees and around rocks.



Summer

Various shades of green, yellow and red all mixed together in the same bush and sometimes on the same leaf!

Pre-Visit Information

Before you arrive... Please take the time to go over the pre-visit information and activities. It helps the students and docents enjoy a more successful program!

In The Classroom

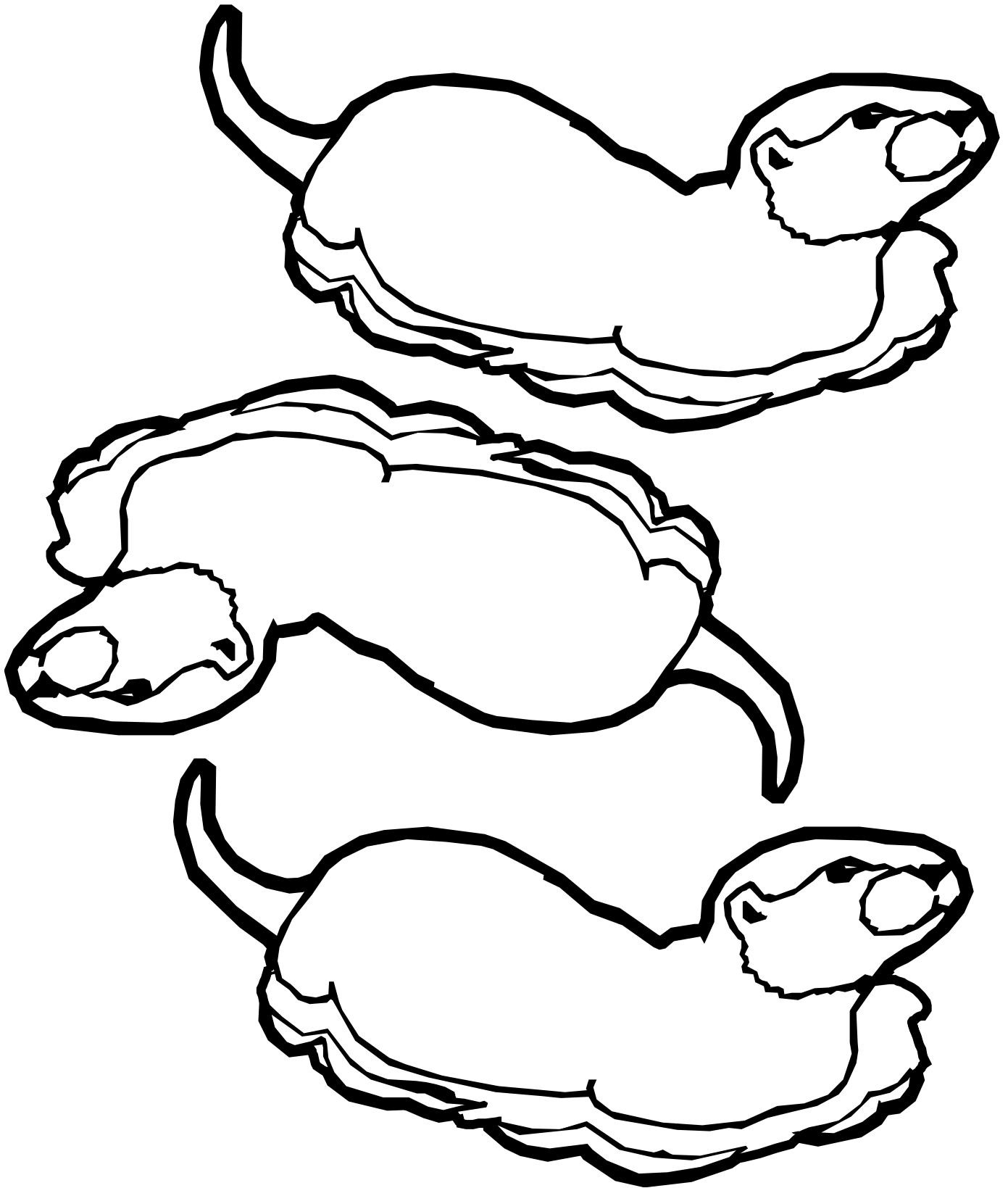
- 1) If there is a special needs student in your group, let us know how we can best meet her/his needs.
- 2) Divide your class into groups of 10-12 students with one adult each if possible. Make sure the students know which group they are in so they can be divided quickly after exiting the bus/car.
- 3) Make name tags and wear them to the Nature Center (see Activity #1)
- 4) Have students do the Word Search and Word Match to familiarize themselves with the theme and new vocabulary words. (see Pre-Visit Activities)
- 5) Review the information and accompanying sketch of poison oak. Although the docent will identify this native shrub for the students, it helps if they are aware of it before arriving.
- 6) Remind students to dress for the weather. The program will be conducted rain or shine. Closed toe walking shoes (no sandals) are a must.
- 7) Have a payment envelope ready to hand the docent as soon as you arrive. If possible, make payment by check. We are not able to make change.
- 8) If you choose to have lunch on site, all related garbage must leave with you. The Nature Center does not have a disposal service.
- 9) Please arrive 15 minutes before your scheduled time.

On The Trail

- 1) The docent will lead the group at all times on the trail, with a parent or other adult taking up the rear.
- 2) Stay on the trail.
- 3) No picking of plants or rocks or anything. Take only memories. Leave only footprints.

We are excited to share an enjoyable, educational experience with you and your students at the Nature Center. Have fun with the pre-visit activities!

Activity #1: Name Tags



Pre-Visit Activities

Warm up your students to Stream Swimmers by doing a few of these pre-visit activities.

Activity #2: Water Riddle

See if they can answer the riddle:

How is a house like a watershed?

- Roof (mountain ridge or divide)
- Rain gutter (valleys)
- Downspouts (streams and river)
- Water Collection Barrel (sea or ocean)



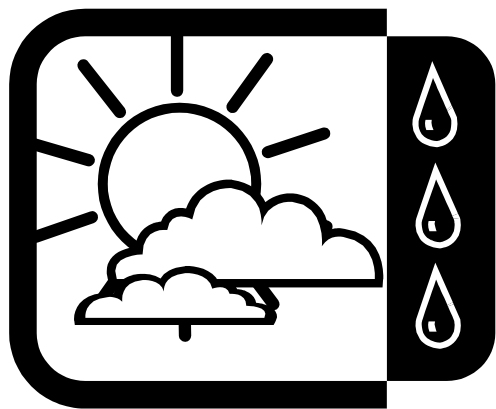
Activity #3: Understanding Water



Ask your students how much of their material and food depends on water?
Have them try the attached activity that has them list items that need water to be make or grown!

Activity #4: Water Word Match

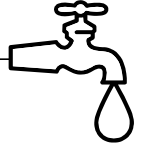
The attached Water Word Match will warm them up to some of the vocabulary words we will be using during the program.



Answers:

- | | |
|------|-------|
| 1. F | 8. E |
| 2. C | 9. M |
| 3. K | 10. A |
| 4. I | 11. H |
| 5. G | 12. J |
| 6. N | 13. L |
| 7. D | 14. B |

Name: _____



Understanding Water

Look around you classroom or house.

Make a list of thing the needed water to be made.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Helpful Hints!



A baseball glove is made of leather. Leather comes from animals. Animals drink water. What else do you see that is made from leather?

Wood comes from trees. Trees need water to grow. What do you see that is made of wood?

Steel and other metals are made using water. What do you see that has metal or steel parts?

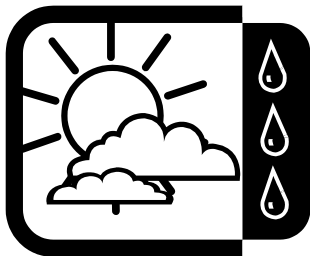


Name: _____

Water Word Match

Write the letter of the correct match next to each problem.

- | | |
|--|--|
| ____ 1. watershed | A. Wise use of our natural resources |
| ____ 2. water molecule | B. Aquatic omnivore |
| ____ 3. herbivore | C. Made of two hydrogen atoms and one oxygen atom |
| ____ 4. water cycle | D. Aquatic habitats |
| ____ 5. erosion | E. Aquatic carnivore |
| ____ 6. food chain | F. The area of land that receives and distributes rainwater into a stream, lake, or river system |
| ____ 7. wetlands, rivers or vernal pools | G. The wearing-away of land |
| ____ 8. heron | H. Rain or snow that is not absorbed into the ground |
| ____ 9. decomposer | I. Evaporation, condensation precipitation |
| ____ 10. conservation | J. Meat-eating animal |
| ____ 11. runoff | K. Plant eater |
| ____ 12. carnivore | L. Producers in aquatic habitats |
| ____ 13. algae and duck weed | M. Breaks down dead plant and animal matter |
| ____ 14. turtle | N. The transfer of energy from plants to animals and animals to animals |



Your Field Trip at a Glance

Correlations:**Common Core:**W3d(post activity); SL1a, b, c, d; SL3**Next Generation Science Standards:** LS1.A; LS1.D; 4-LS1-1; 4-PS4-2

A team of docents will meet your class in the parking lot, lead the group to the Nature Center courtyard, and point out restrooms and drinking fountain. Each docent will take a group of 10-12 students and begin their program at one of the following stations: WaterShed Exhibit Hall and Picnic Area for hands-on activities to reinforce the theme, or Nature Walk. The docent will rotate through all stations to complete the program. Following is an outline of what to expect at each station for your program at the Placer Nature Center.

***WaterShed Learning Center Exhibits******20 minutes***

After defining watershed, students will enter the WaterShed and follow a drop of water through a watershed model. Panels illustrate the relationships of nature and people to water depicting water use, conservation and its essential need as a basis for life. The aquatic food webs illustrated in exhibits and floor mural will be related throughout the watershed including people.

Discovery Room Activity- Aquatic Producers***20 minutes***

Students will visit PNC's small pond and identify the producers of this aquatic habitat. Then they will go to the Discovery Room and look through microscopes at our smallest flowering plant, the duck weed and see other microscopic pond life.

Outside Activity- Aquatic Food Chains***20 minutes***

In this activity, the students will be "webbed" together using yarn as we go through the trophic levels of the aquatic food chains.

Nature Trail***60 minutes***

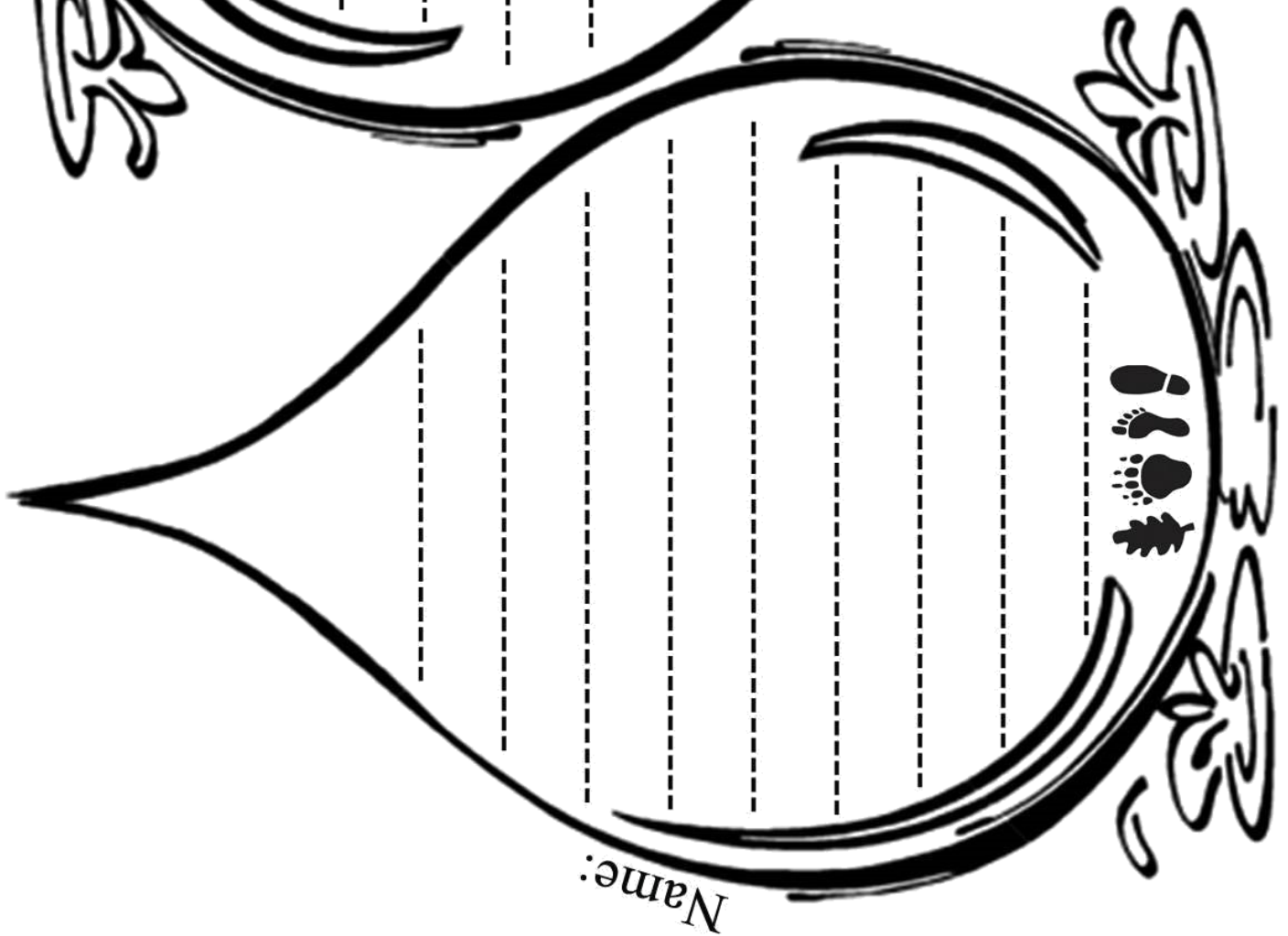
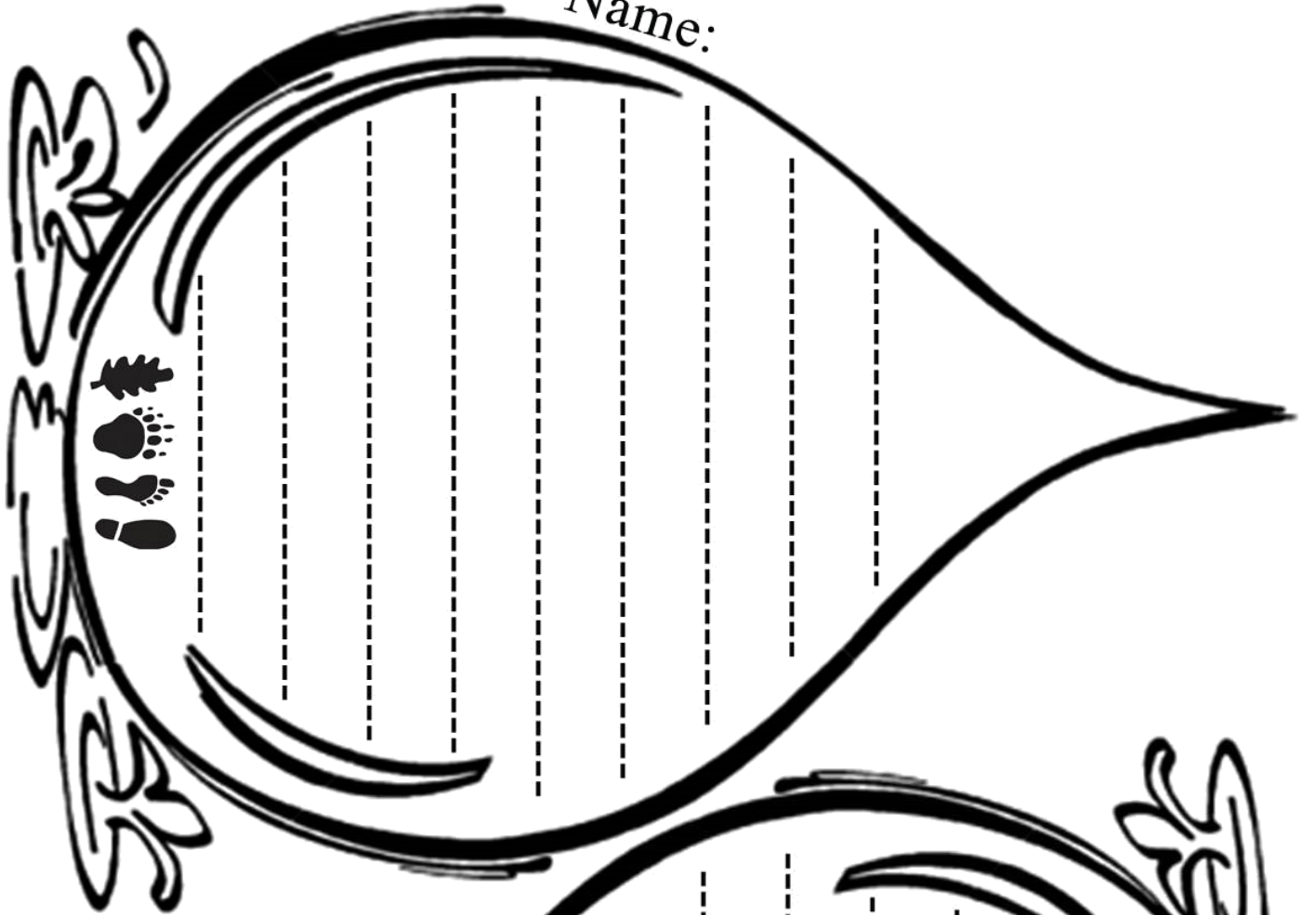
Students will visit our pond site and our intermittent stream and observe and identify aquatic plants and healthy stream characteristics. As they walk the trail animal tracks and signs will be connected to foothill food chains.

Post-Visit Activity

Have students internalize the lessons learned at Placer Nature Center by doing the following writing activity. Using the water drops provided on the following page, have students write descriptions on one of the following topics or a topic of your choice from the field trip.

- Water conservation
- Aquatic Food Chains
- Aquatic environments and their inhabitants
- Water pollution

Name:



Name: