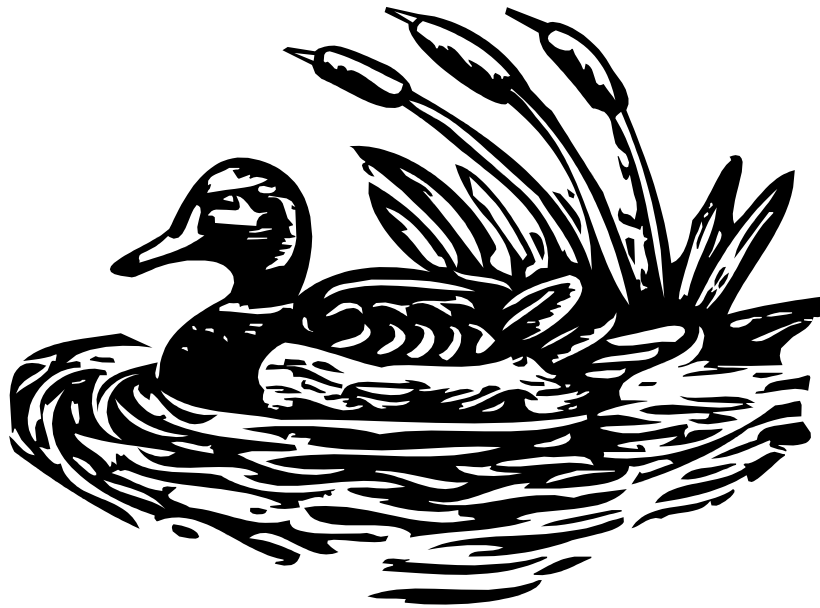




Placer  
Nature  
Center



**Watershed Explorations**



**Aquatic Life Cycles**

**2**



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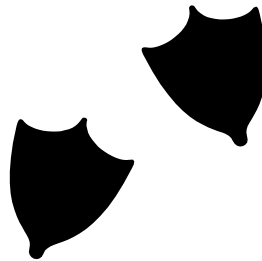
This curriculum guide has been developed by the Placer Nature Center Curriculum Committee:  
Linda Desai, Stuart Yaffe, Bob Gloyd, and Dorothy Gloyd. January 1993. Revision 2009

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# 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 tips to Placer Nature Center's campus, meet you out in the field and/or deliver presentations in the classroom.

Website: [www.placernaturecenter.org](http://www.placernaturecenter.org)  
 Email: [programs@placernaturecenter.org](mailto:programs@placernaturecenter.org)  
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 Address: Placer Nature Center  
 3700 Christian Valley Road  
 Auburn, CA 95602

## 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.

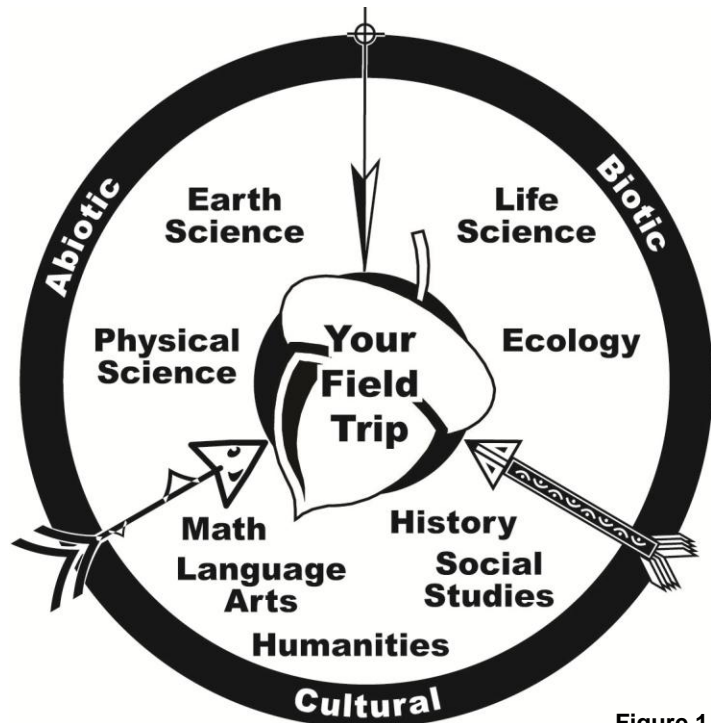


Figure 1.

# 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***

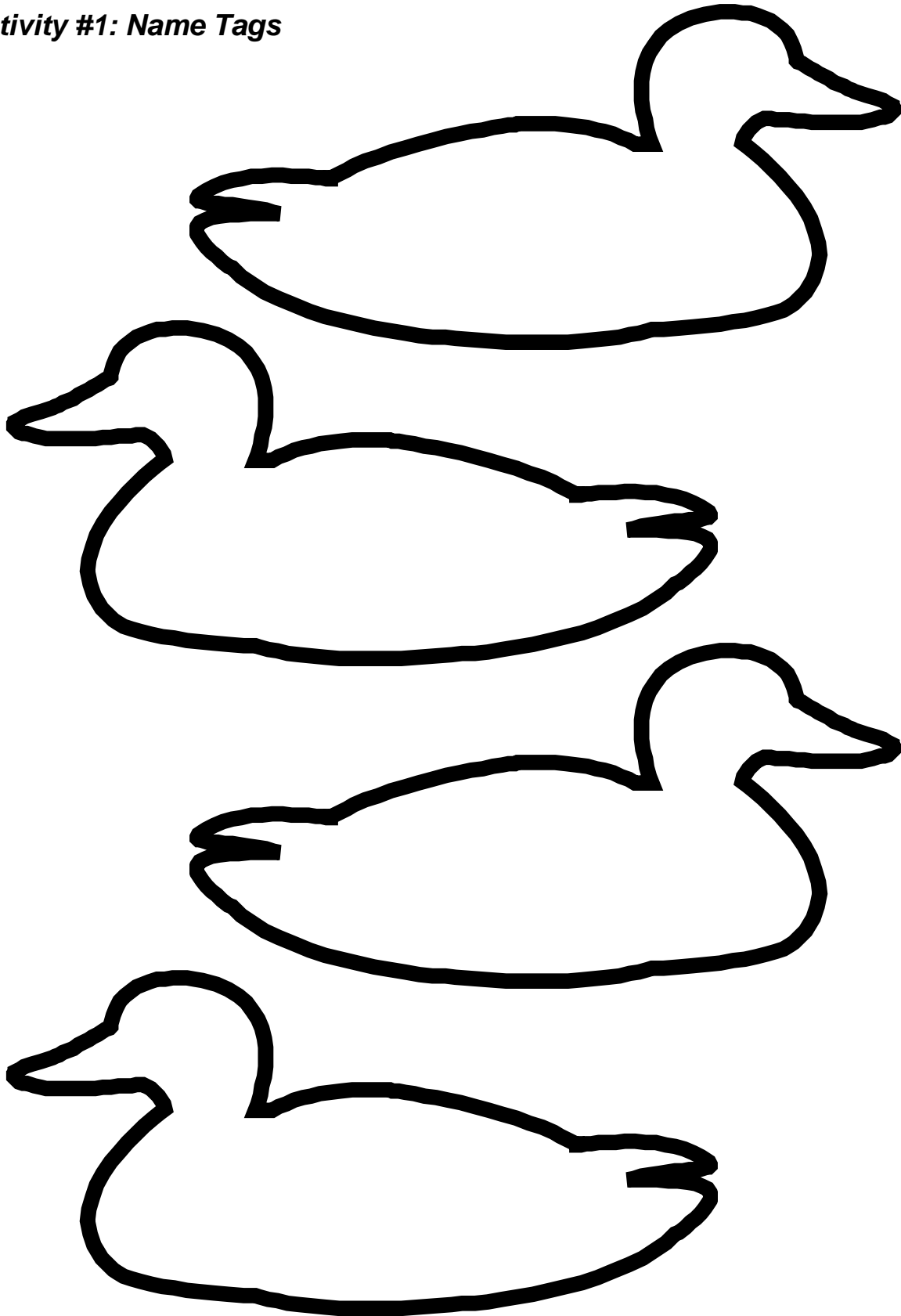
- 1) If there is a special needs student in your group, let us know how we can best meet her/his needs.
- 2) Divide your class into groups of 10-12 students with one adult each if possible. Make sure the students know which group they are in so they can be divided quickly after exiting the bus/car.
- 3) Make name tags and wear them to the Nature Center. Following is an activity for making name tags. (see Activity #1)
- 4) Review the information and accompanying images of poison oak. Although the docent will identify this native shrub for the students, it helps if they are aware of it before arriving.
- 5) Remind students to dress for the weather. The program will be conducted rain or shine. Closed toe walking shoes (no sandals) are a must.
- 6) 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.
- 7) If you choose to have lunch on site, please note we practice "Pack it In, Pack it Out!" All related garbage must leave with you. The Nature Center does not have a disposal service.
- 8) 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**





# Your Field Trip at a Glance

**Correlations:****Common Core:****Next Generation Science Standards: LS4.D; 2-LS4-1; 2LS2-1**

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 fountains. Each docent will take a group of 10-12 students and begin their program at one of the following stations: WaterShed Exhibit Hall, 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 program station during your field trip.

***WaterShed Learning Center Exhibits*****15 minutes**

Students become familiar with the word watershed by demonstration and illustration. They explore the water cycle, follow the flow of water through the natural environment and discover the many plants and animals dependent on water along the way. Stages of the life cycles of plants and animals depicted in the exhibits are emphasized.

***Discovery Room Activity- Are you Me?*****15 minutes**

Students look at adult aquatic animals and try to find their larval/young form. Many are surprising because they look nothing like the adult. Students also look at a pond sample to see stages of aquatic life.

***Outside Activity- Conservation Match*****15 minutes**

Students match almost identical cards. The difference is, one is wasting water and one is saving water. As students match the cards and determine which is saving water, these conservation practices are discussed.

***Nature Trail*****45 minutes**

Students will investigate the nature trail leading to an intermittent stream to look for healthy stream signs and talk about water words along the way. Life cycles of plants and animals are discovered along the trail and how they get water and where they would find it.

# Post- Visit Activity

Draw a life cycle of an animal that lives in water inside the drop.



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