

Marin 4-H SET Naturalist Project

Environmental Stewardship

University of California Cooperative Extension/Conservation Corps North Bay



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Marin 4-H SET Naturalist Pilot Project

Two-year pilot (2008-2010) collaboration between...



- Strengthen the community environmental education program led by CCNB AmeriCorps Members
- Funded in part by California State 4-H Office

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AGENCY ASSETS

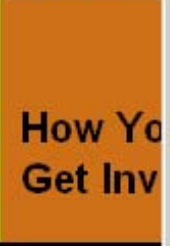


UCCE/4-H

- Project design and leadership
- Staff expertise for training
 - Youth development
 - Natural resources content
- Supplemental UCCE resources (e.g., technology communications)
- Research and evaluation

CCNB

- Community extenders (AmeriCorps)
- Training facility
- Transportation for field trips
- Supplemental training
- Collaborating partners for program delivery
- Support resources for program delivery



OUR MISSION:

DEVELOP YOUTH AND CONSERVE NATURAL RESOURCES FOR A STRONG, SUSTAINABLE COMMUNITY



Get a quick introduction to CCNB. Take an interactive tour. [▶](#)



MAKE A DIFFERENCE

DONATE

BECOME A CORPSMEMBER

Give us a year and we'll give you credit, job experience and good karma.

[Apply Online](#)

[Restoration & Ecosystem AmeriCorps](#)

[Youth in Environmental Service AmeriCorps](#)

[Natural Resources Corpsmember](#)

[Community Recycling Corpsmember](#)

CAREERS AT CCNB

Benefits include feeling good about what you're doing

[Natural Resources Crew Supervisor](#)





THE SONOMA ECOLOGY CENTER

COLLEGE OF
MARIN



MARIN MUNICIPAL
WATER DISTRICT

GOLDEN GATE
NATIONAL
PARKS
CONSERVANCY



The Marine
Mammal Center



Sonoma County

University of California Cooperative Extension

















HOW DO YOU GET FROM...



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Naturalist Leader Program Desired Outcomes

At the end of the Naturalist Leader program, each participant will:

- (1) Have knowledge of Marin's natural environment**
including: ecosystems and ecology; geology, water, and climate;
plant diversity; bird diversity; wildlife diversity; and working landscapes.

- (2) Have knowledge of youth development principles**
including: inquiry-based learning, experiential learning model, and age
group characteristics.

- (3) Have developed and practiced teaching and leadership skills**
including: individual and group leadership skills, practical application of
subject matter knowledge



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FRAMEWORK

Year 1



DATE	TOPICS	PRESENTERS	AGENCY
12/5/08	Experiential Learning Project Planning	Jane Chin Young	UCCE/4-H
12/5/08	Ecosystems & Ecology	Paul da Silva David Herlocker	College of Marin Marin County Parks and Open Space District
1/9/09	Working with Youth	Jane Chin Young	UCCE/4-H
1/9/09	Water & Geology	Brock Dolman STRAW	
2/6/09	Plant Diversity	Steven Swain Charlotte Torogitsky MMWD	UCCE MAGC
3/6/09	Bird Diversity	Cindy Jensen Lishka Arata & Missy Wipf	UCCE/4-H Point Reyes Bird Observatory
4/3/09	Wildlife Diversity	Juan-Carlos Solis	WildCare
5/1/09	Working Landscapes	Steve Quirt & Dave Lewis Nancy Scolari	UCCE County Line Harvest Farm
6/5/09	Evaluation, Graduation	Janice Alexander Jane Chin Young	UCCE/4-H

Six natural resource subject areas:
Ecosystems, Water, Plants, Birds, Wildlife, Working landscapes



Structure of 6 day-long sessions:

Indoor & field presentations; adult and youth education; peer practice



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Indoor & field presentations; adult and youth education; **peer practice**





Sample Session: Year 1



Ecology & Ecosystems of Marin County/Introduction to Youth Development Concepts

10 AM - Icebreaker/introductory activity: water-absorbing diapers (Jane); Introduce speakers: Jane and Janice; Review ground rules and everyone's roles; review inquiry method for youth groups (Janice); Expectations for the day (questions they have about the upcoming topic) – record on a flip chart (Jane & Janice); Hand out “Model Behaviors/Actions to Take” evaluation form (Jane)

10:30 AM - Presentation on 4-H and exploratory learning topic (Jane)

11 AM - Introduce science speaker: Paul da Silva, College of Marin; Presentation on ecology & ecosystems of Marin (~45 min with extra time for questions)

12:15-12:45 PM (Lunch)

12:45-1 PM (Travel to field site)

1:15 PM - Introduce field speaker: David Herlocker, Marin County Parks and Open Space; Field presentation (45 min) + questions/activities (15 min)

2:30 PM - Reflections and Actions (Janice); Closing: Facilitate group's reporting out on session (Jane & Janice); Sign-up for next sessions roles (all)

3 PM - End of session, return to CCNB

Year 1 Implications —————> Year 2

- minimize the travel time during the sessions to allow for more time with speakers
- to cover less material with more detail
- more information on youth development concepts and tools for working with youth (esp. outdoors)
- more time to practice lesson ideas and work with peers to develop and support teaching skills
- Reduced funding and staff resources due to economy

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FRAMEWORK

Year 2



DATE	TOPIC	PRESENTER
2/5/2010	UCCE Intro Working with Youth Experiential Learning	Jane Chin Young, YD
2/12/2010	Diversified farming, working landscapes and watersheds	Dave Lewis, Watershed Steve Quirt, Sustain Ag
2/19/2010	Group Leadership & Mgmt Challenging Youth	Shelley Murdock, YD
3/26/2010	Oaks & SOD	Janice Alexander, SOD Steven Swain, Env Hort
4/2/2010	Application and practice 4-H Club teen presentations	Jane Chin Young, YD Caitlyn Keaney, 4-H Freddie Genazzi, 4-H
7/19/2010	Working with Youth for temporary supervisors Youth activity demos for temporary supervisors	Jane Chin Young, YD YES team (AmeriCorps)
July-August	AmeriCorps survey administration Post-training (on-site) Post-assignment (online)	Jane Chin Young, YD
October 12, 2010	Focus Interview with CCNB staff	Jane Chin Young, YD Martin Smith, Specialist, UCD



Sample Session: Year 2



Marin County Oak Woodlands and Sudden Oak Death

12:15 p.m. - Load vans, drive to IVC parking lots

12:30 p.m. - Welcome and Overview; begin field hike

En route: Deciduous vs. evergreen oaks; red group vs. white group; visible tree mortality; differences in canopy, aspect, species composition; Poison Oak flowers

Stop 1: Reservoir - Marin Co. oak woodlands; CA Mediterranean climate; foundational/keystone species; ecosystem services and social benefits; common oak woodland wildlife; role of fire; manipulations by Native Californians; oak galls; etc.

Stop 2: Oak symptoms and Madrone dieback - Forest Pathology CSI; SOD symptoms (bleeding oak trunk; bay laurel leaves; secondary attacks and decay); pathogen biology and history; other common oak woodland shrub and herbaceous species; etc.

Stop 3: Overall forest mortality - Management options; Agri Fos; bay pruning; other oak pests and diseases (*Armillaria*; *P. cinnamomi*; beetles and borers; oak moth; etc.); etc.

Return to parking lot via waterfall trail (*Janice exits by 3 p.m.*)

4 p.m. - Final comments and sanitation at parking lot

4:30 p.m. - Session ends, return to CCNB in Novato

Youth Development

HEALTHY COMMUNITIES



Available at:
<http://www.ca4h.org/files/4462.pdf>

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EXPERIENTIAL LEARNING CYCLE

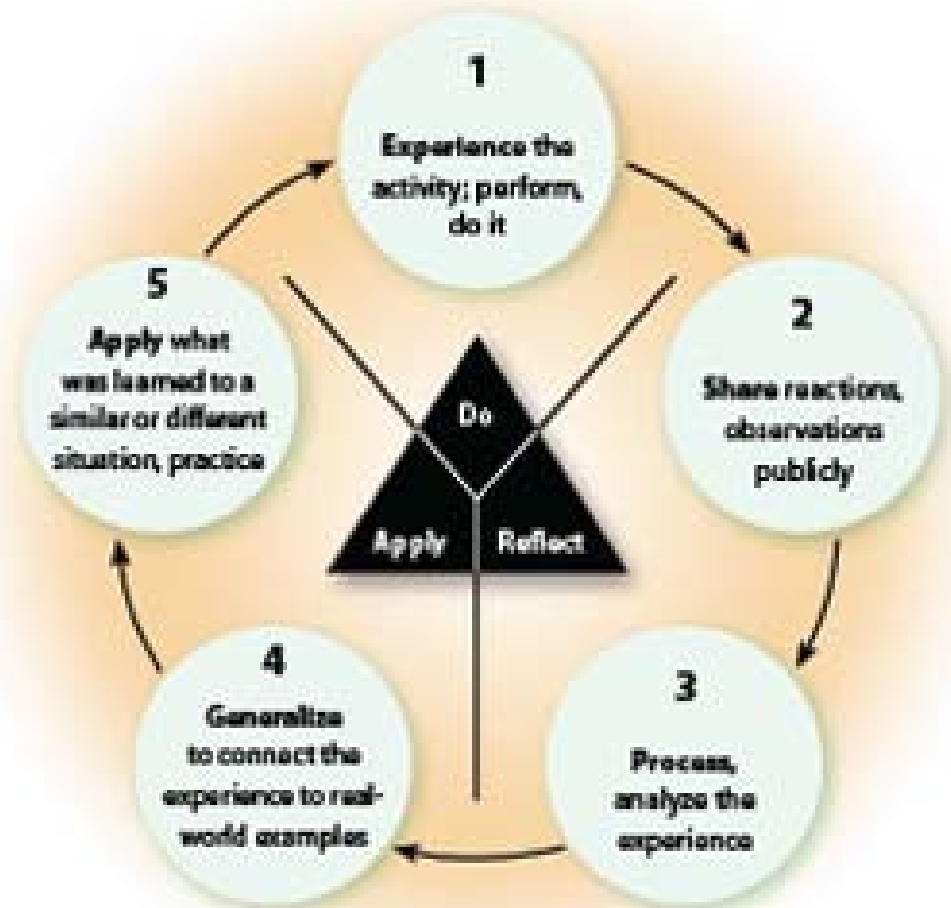
Experience It: **Do It!**

Share: **What
Happened?**

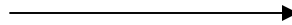
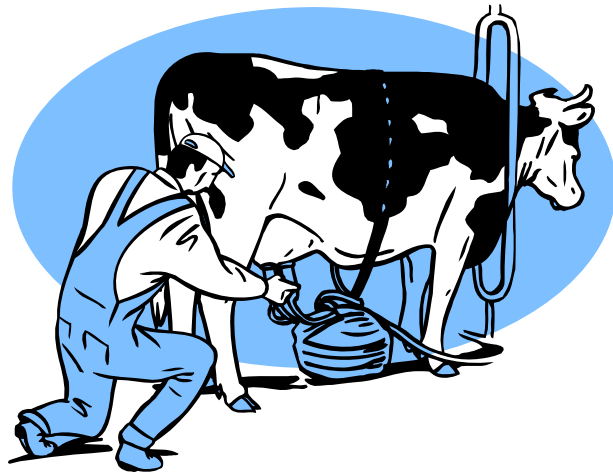
Process: **What's
Important?**

Generalize: **So
What?**

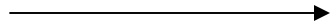
Apply: **Now What?**



How do you get from...



How do you get from...



PAPER TEARING



Project Leader Activity: Ages & Stages of Youth Development



From the *California 4-H Project Leaders' Digest* Modules available at:
[http://www.ca4h.org/Resources/Volunteers/Project Leader Resources/](http://www.ca4h.org/Resources/Volunteers/Project_Leader_Resources/)

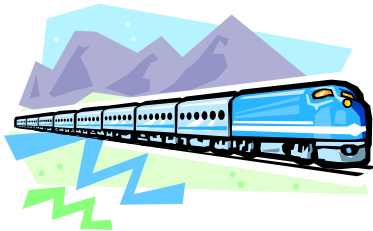
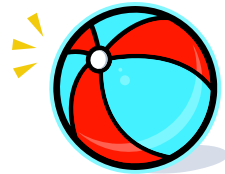


ICBREAKERS



Snowball Fight

Beach Ball



Train Wreck

SCAVENGER HUNT

Acorn



Oak Leaf (Round)

Oak Leaf (Pointed)



A Purple Wildflower

A Yellow Wildflower



A Frog

Woodpecker



Something That Is Edible:

Something Else We Saw:

Tree
Structures:
-Forest
-Savannah
-Woodland



Video of Steven



Group Management & Teamwork



Shelley Murdock, 4-H Advisor, UCCE Contra Costa

Attention-Getters



Rotating Pair Sharing



4-H Member Assistant

Freddie Genazzi



"Can my Tree Catch the Flu?"



Water Tasting

GENERATIONAL CHARACTERISTICS

Decade →	1970's	1980's	1990's	2000's	Now
BIGGEST EVENT	Assassinations of JFK and MLK	Hostages in Iran Gas shortage	Death of Princess Diana	9-11 Columbine (1999)	Obama elected President Death of Michael Jackson
BIGGEST INVENTION OR DISCOVERY	Man on the Moon	Microwave oven	E-mail	Internet Cell phones Hybrid cars	iPod Wii
BIGGEST POP STARS	Beatles	Disco	Nirvana Alanis Morissette	Spice Girls Eminem Janet Jackson	Lady Gaga Hannah Montana Taylor Swift
MOST POPULAR TV SHOWS	Leave It to Beaver My Three Sons	Love Boat Fantasy Island	Beverly Hills 90210 Friends	Keenan & Kel X-Files Family Matters	NCIS American Idol Dancing with the Stars
FAVORITE PASTIMES	Skateboarding	Movies	Play Station	Rollerblading Hanging out at the Mall	Texting Twilight



HEALTHY COMMUNITIES

EVALUATION

HEALTHY COMMUNITIES

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EVALUATION

Year 1 - Nonformal Project Leaders (AmeriCorps)

- Survey to gather feedback on training and field trips
 - Subject matter knowledge
 - Youth development knowledge
 - On-site training delivery
 - Field trip logistics
 - What worked well, what can be improved
 - What you gained
 - What the people you served gained
- Focus interview with small group of trainees post-assignment



EVALUATION

Year 2 - Formal

TWO SURVEYS

- Project Leaders (AmeriCorps)

FOCUS INTERVIEW

- CCNB Staff



PROJECT LEADERS

(AmeriCorps)



- **Survey 1 – Post-training (on-site)**
 - Fixed response survey instrument
 - Interval scale of 1-3 for effectiveness of delivery and knowledge & skills gained
- **Survey 2 – Post assignment (online)**
 - Fixed response survey instrument
 - Interval scale of 1-3 for effectiveness of training for relevance and application for assignment
 - Five open-ended questions on improvements and gains

FOCUS INTERVIEW

(CCNB Staff)

- *Set of 10 open-ended interview questions*
- *Administered on-site by UC Davis specialist*



PROJECTED PARTICIPANT OUTCOMES

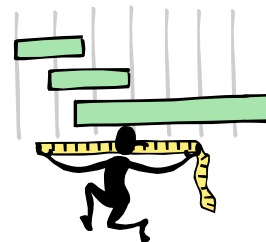
(1) Have knowledge of Marin's **natural environment**, including: ecosystems and ecology; geology, water, and climate; plant diversity; bird diversity; wildlife diversity; and working landscapes.

(2) Have knowledge of **youth development principles** including: inquiry-based learning, experiential learning model, and age group characteristics.

(3) Have developed and practiced **teaching and leadership skills** including: individual and group leadership skills, practical application of subject matter knowledge

GENERAL OUTCOMES

- (1) Natural resource knowledge - medium to high
- (2) Youth development knowledge – medium
- (3) Science knowledge – medium to high
- (4) Inquiry-based learning – low to medium
- (4) Teaching and leadership skills – medium
- (5) Field trip logistics – medium to high





OTHER INFORMATION



- *Develop a certification program*
- *Open training program to community agencies*
- *Offer both natural resources and youth development training*
- *Expand relevance and application with experiential education*
- *Include training that is specific to local communities*

QUESTIONS





<http://cemarin.ucdavis.edu/>

NAE4HA WORKSHOP EVALUATION



SESSION PRESENTER QUESTIONS:

- 1. What was the most important part of this workshop for you?**
- 2. What was the least important part of this workshop for you?**
- 3. What were you hoping to learn at this workshop?**
- 4. Were your needs and expectations met?**
- 5. If no, what could have been done better?**