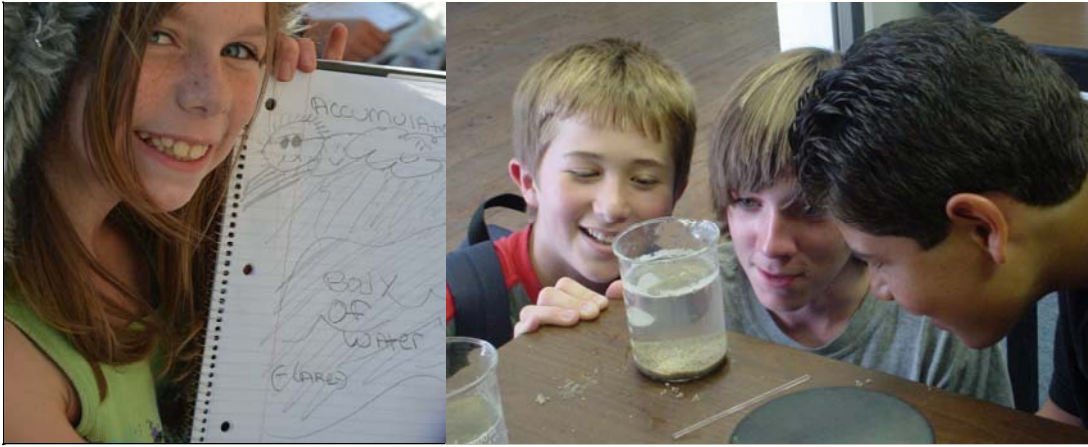




4-H WATER EDUCATION PROJECT



Water is critical for life on Earth, covers over 70% of the surface, and yet only a small percentage is available as freshwater. In this project, youth learn about the role of water on Earth and the impact of humans on water quality and quantity. Youth explore how they can have a positive impact on water in their own community. Members may learn

- The properties of water, its chemical composition, forms, and the natural water cycle
- Human uses of water including agriculture, urban, industrial
- The effects of the urban/rural interface on water quality and quantity
- Watershed, drainage basins, and the inter-connectedness of water and human activity

4-H THRIVE

Help Youth:

Light Their Spark

A spark is something youth are passionate about; it really fires them up and gives them joy and energy. Help youth find what it is about water that excites them.

Flex Their Brain

The brain grows stronger when we try new things and master new skills. Encourage youth effort and persistence to help them reach higher levels of success.

Reach Their Goals

Help youth use the GPS system to achieve their goals.

Goal Selection: Choose one meaningful, realistic and demanding goal.

Pursue Strategies: Create a step-by-step plan to make daily choices that support your goal.

Shift Gears: Change strategies if you're having difficulties reaching your goal. Seek help from others. What are youth going to do when things get in their way?

Reflect

Ask project members how they can use their passion for this project to be more confident, competent and caring. Discuss ways they can use their skills to make a contribution in the community, improve their character or establish connections.

Starting Out *Beginner*

- Learn about the natural water cycle
- Identify where on the world water is found—oceans, streams, lakes, ground, etc
- Experiment with evaporation and condensation
- Learn about the chemical, physical, and biological aspects of water
- Explore watershed models
- Learn about surface runoff and soil erosion

Learning More *Intermediate*

- Learn about the human history of water, how its used around the world, transportation, culture, and philosophy
- Explore human interventions in the water cycle
- Identify and learn how humans use water in agricultural, residential, industrial, and recreational settings
- Visit a waste water treatment plant
- Learn about the rural/urban interface

Exploring Depth *Advanced*

- Learn to read and use topographical maps
- Map your own watershed and identify potential negative impacts
- Find local and state laws related to water
- Find a need and implement a service learning project to positively impact water quantity and quality
- Conduct water quality testing, compare results with others

The activities above are ideas to inspire further project development. This is not a complete list.



Expand Your Experiences!

Science, Engineering, and Technology

- Conduct water quality test experiments on the sources of water in your community
- Experiment with water filtration—build your own filtration system
- Product a video of how water is used in your community; post online to share
- Compare tap water to bottled water to see if there are differences

Healthy Living

- Learn about the effects of over or under hydration on the human body
- Find out what types of contaminants in water have detrimental effects on aquatic life
- Experiment in various ways with sweeten-sugary beverages compared to tap water

Citizenship

- Learn about water issues in other countries. How can you help?
- Learn about the sources of water in your area—are there any legal issues?
- Plan and implement a service learning project to improve water quality and quantity in your community; share your project!

Leadership

- Become a junior or teen leader
- Lead water activities at a 4-H club meeting for younger youth
- Deliver a 4-H presentation on water issues at a 4-H presentation day

Resources

California Institute for Water Resources

<http://ucanr.org/sites/water/>

UC Davis HYDRA Center

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

California Water Foundation

www.californiawaterfoundation.org/

Federal EPA

<http://water.epa.gov/learn/resources/index.cfm>

CA Dept. of Water Resources

<http://www.water.ca.gov/education/>

National Extension Water Outreach Education [http://](http://wateroutreach.uwex.edu/outreach-education/Youthwater.cfm)

wateroutreach.uwex.edu/outreach-education/Youthwater.cfm

The UC 4-H Youth Development Program does not endorse, warrant, or otherwise take responsibility for the contents of unofficial sites.

Connections & Events

Presentation Days – Share what you’ve learned with others through a rocketry-related presentation.

Field Days – At these events, 4-H members may participate in a variety of contests related to their project area.

Contact your county 4-H office to determine additional opportunities available, such as a field day.

Curriculum

- There’s No New Water! <http://www.4-h.org/curriculum/water/>
- CA Aquatic Science Education <http://www.ca4h.org/Projects/SET/EE/CASEC/>
- Give Water a Hand Action Guide <http://learningstore.uwex.edu/Give-Water-a-Hand-Action-Guide-P735C208.aspx>
- ProjectWET <http://projectwet.org/where-we-are/location/california/>

4-H Record Book

4-H Record Books give members an opportunity to record events and reflect on their experiences. For each project, members document their personal experiences, learning and development.

4-H Record Books also teach members record management skills and encourage them to set goals and develop a plan to meet those goals.

To access the 4-H Record Book online, visit www.ca4h.org/4hbook.

