Youth need to understand science, technology, engineering, and mathematics (STEM) concepts and know how to use scientific and engineering thinking to address important societal concerns. The 4-H scientific literacy project introduces 4-H members to important concepts through engaging in reasoning skills to help improve attitudes for and interest in STEM. Through this project, youth apply their learning to real-world issues.

- Youth develop science-related conceptual understanding associated with issues relevant to their respective 4-H projects, their own lives, and to the citizens of California.
- Youth strengthen their scientific reasoning, the cognitive skills needed to un-

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

- Find ways to use science or engineering to improve the health of your community
- Research how scientific advancements have helped improve our standard of living

Citizenship

- Discover the science-rich institutions in your community. Find methods to increase youth participation in interacting with these places
- Identify community needs and plan a scientific investigation or engineering de-

Leadership

- Become a junior or teen leader
- Plan, prepare, and present a Science or Engineering Presentation at a 4-H presentation day

Apply for a 4-H Golden Clover Award in the Brownlee Science category.

Presentation Days – Share what you’ve learned with others through a presentation. Present a Science or Engineering Presentation.

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

For K-3rd grade youth: Youth Experiences in Science- http://4h.ucanr.edu/Resources/Curriculum/FREE/4-H_Youth_Experience_in_Science_2000/

There’s No New Water! http://www.4-h.org/resource-library/curriculum/4-h-theres-no-new-water/

Explore It! Curriculum http://npass2.edc.org/

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

Resources

- 4-H STEM Resources http://4h.ucanr.edu/Projects/STEM/Professional_Development/
- Understanding Science http://undsci.berkeley.edu/
- How to Smile www.howtosome.org/
- 50 Ways to include STEM in service learning 4h.ucanr.edu/files/117133.pdf
- USA Science and Engineering Festival www.usasciencefestival.org/
- Exploratorium Education http://www.exploratorium.edu/
- SciGirls http://pbskids.org/scigirls/home
- Citizen Science CitizenScience.org
- Click2Science Resources http://www.click2sciencepd.org/
- Techbridge http://www.techbridgegirls.org/
- ScienceFriday http://