



# Vermont 4-H Mission Area

## Science, Engineering, and Technology (SET)

### WHAT IS 4-H SET?

Our youth are facing a critical challenge. Although the United States is currently a world economic leader, too many young Americans do not have the science, engineering, and technology career skills necessary to succeed and meet our country's needs in the future.

With 4-H and the Cooperative Extension System's direct connection to the research and resources of the nation's 106 land-grant universities and colleges, the 4-H Science, Engineering and Technology (SET) program has become a national priority of the 4-H Youth Development Program for the next five years. National 4-H has set a goal of reaching 1,000,000 new students through SET by 2013.

Vermont 4-H has created in- and after-school, hands-on, practical science programming that uses quality 4-H SET curricula designed to encourage an appreciation for science and discovery, and to spark innovative ideas for the future. Linked to University research, program evaluation is connected to social skill development. 4-H SET events and club activities will demonstrate that science is not just a classroom subject but a fascinating and creative part of everyone's daily life. Activities will teach Vermont 4-H'ers about how science and engineering issues affect their lives and prepare a future generation of scientists and engineers.



### GOALS

- To improve science literacy
- To increase the number of college students majoring in SET fields.
- To increase the number of college graduates pursuing SET careers.

### PROGRAM FEATURES

User-friendly curriculum with age-appropriate lesson plans state learning outcomes that correspond with National Education Standards and 4-H's Essential Elements of Positive Youth Development. Lessons use low cost and readily accessible materials and equipment; incorporate discovery learning methods, experiential hands-on activities, group interaction situations, and inductive questioning approaches to programming. Subject areas include:

All About Animals	Super Science Saturdays
ESRI GIS grant sites	Embryology
CITYgreen	Robotics
Movie Life	Forensics (CSI)
Mad Scientist	Hiking Navigator
Digital Photography	Acres of Adventures
Wonderwise – African Plant Explorer, Space Geologist	

### Professional and Volunteer Development:

Vermont 4-H will train partner organizations to deliver non-formal science programs to their youth. The National Online SET Network will be the national clearinghouse for 4-H SET programming and information, providing access for professionals, volunteers and young people to SET curriculum, volunteer and staff webinar trainings, peer to peer mentoring, and best practices.



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