



## 4-H: Addressing America's Critical Need in Science, Engineering & Technology



H E A D , H E A R T , H A N D S , H E A L T H



## Science, Engineering & Technology

For more than **100 years**, 4-H has provided  
opportunities for young people to explore  
science that is

Cutting-Edge  
Practical Science  
Linked to University Research  
Hands-On Discovery & Exploration  
Connected to Social Skill Development



## Science, Engineering & Technology

*At present America faces a significant challenge....*

**Young people are not prepared with the necessary science, engineering, technology and workforce skills for the 21<sup>st</sup> century.**



## Science, Engineering & Technology

**4-H is uniquely positioned to develop America's future generation of scientists and engineers.**

- Existing audience of 5.9 million youth in science programs
- Multiple science program delivery channels
- Hands-on, practical science program model
- University educators partner with youth on cutting-edge research projects



## Science, Engineering & Technology



### Goal

1 million new kids in  
Science,  
Engineering &  
Technology  
by 2013



## Science, Engineering & Technology



### Objective

Increase science,  
engineering and  
technology knowledge,  
skills & competencies

### Strategy

Provide opportunities  
for hands-on scientific  
learning and discovery  
in 4-H clubs



## SET Guiding Principles

- Programs in the context of positive youth development
  - Mastery, Independence, Belonging, Generosity
- Programs are based on National Standards
  - National Science Education Standards – content and abilities/behaviors
- 4-H SET involves Youth/Adult Partnerships
- 4-H SET is delivered in a variety of settings and locations and involves diverse audiences



## SET Program Features

### Professional Development

- 4-H Volunteers and Staff prepared to teach SET
- Develop a well-coordinated PD System

### Curriculum

- Curricula meet national standards
- Curricula meet 4-H Review Process

### Evaluation and Research

- Effective evaluation methods used in 4-H SET
- Research shows the impact of 4-H SET



## SET Program Features

### Marketing & Communications

- Strong, clear, consistent 4-H SET message
- Accepted, embraced, communicated by CES & LGU

### Funding

- Use public and private funds at all levels of the 4-H System to support 4-H SET programming.

### Partnerships and Collaborations

- Develop partnerships between 4-H and SET professional groups and youth organizations.



## What Can Material Advantage Do?

- Identify interested Material Advantage chapters
  - Mentors, content resources, role models
- Connect interested chapters with state or local 4-H programs
  - 4-H SET state plans
  - State and local program support
- Identify Material Advantage chapters and 4-H partners to develop partnership models



**State 4-H SET Contacts:**

[www.national4-Hheadquarters.gov/docs/set\\_poc.pdf](http://www.national4-Hheadquarters.gov/docs/set_poc.pdf)

**This presentation:**

[www.national4-Hheadquarters.gov/docs/set\\_ma.ppt](http://www.national4-Hheadquarters.gov/docs/set_ma.ppt)



**4-H SET**

Science, Engineering & Technology  
A Foundation for the Future

