4-H Science Core Competencies

The 4-H Science core competencies identify how 4-H youth development workers can be competent and caring resources to youth, organizations, and communities. 4-H youth development professionals and volunteers implement 4-H Science programs that offer the following eight essential elements.

**CARING ADULT**

UNDERSTANDS THAT EACH YOUNG PERSON BENEFITS FROM A POSITIVE RELATIONSHIP WITH A CARING ADULT BY:

1. Communicating the capacity of all youth to learn and experience success.
2. Willing to learn alongside youth.
3. Being comfortable not having all the answers.
4. Demonstrating support for all youth, regardless of their challenges.
5. Understanding and caring about youth and their families.
6. Appreciating the context in which youth and families live.

**SAFE ENVIRONMENT**

CREATES AN EMOTIONALLY AND PHYSICALLY SAFE LEARNING ENVIRONMENT BY:

1. Modeling strategies for conflict resolution.
2. Encouraging youth to share new ideas and different perspectives.
3. Modeling and facilitating how to give and receive constructive criticism.

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INCLUSIVE ENVIRONMENT (BELONGING)

DESIGNS INCLUSIVE LEARNING ENVIRONMENTS BY:

1. Promoting teamwork and cooperation.
2. Providing opportunities for youth to teach and learn from each other.
3. Demonstrating respect for others.
4. Fostering an environment of mutual respect for others.

SEE YOURSELF IN THE FUTURE (SENSE OF HOPE)

NURTURES AN ATMOSPHERE OF OPTIMISM AND A POSITIVE BELIEF IN THE FUTURE BY:

1. Encouraging the belief that all youth can learn science or pursue science careers.
2. Creating a science-friendly learning environment.
3. Promoting science careers for all youth, regardless of their gender, race, or ethnicity.
4. Demonstrating how science can improve the world.

VALUES AND PRACTICES SERVICE TO OTHERS

ENCOURAGES AN ETHIC OF CARING AND CIVIC RESPONSIBILITY BY:

1. Helping youth connect to the community through service projects.
2. Encouraging empathy for others and responsibility to the community.
3. Engaging youth in real world science activities that consider the needs of others.
4. Understanding the positive and negative effects that science has on humans.

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OPPORTUNITIES FOR MASTERY

PROVIDES OPPORTUNITIES FOR YOUTH TO DEVELOP SKILLS, COMPETENCE, AND EXPERTISE BY:

1 Designing experiential, inquiry-based, opportunities for youth to learn 4-H Science skills.
2 Challenging youth to explore new or different 4-H Science projects and areas of learning.
3 Supporting youth in achieving their goals in the face of setbacks.
4 Knowing how to foster an increasing development of skills in youth.

ENGAGEMENT IN LEARNING

ENCOURAGES YOUTH TO DIRECT AND MANAGE THEIR OWN LEARNING BY:

1 Assisting youth in setting realistic goals of their own choice.
2 Encouraging an inquiry approach to learning and exploration.
3 Providing sufficient time and an appropriate environment for thorough learning.

OPPORTUNITIES FOR SELF-DETERMINATION

ENCOURAGES AND SUPPORTS INDEPENDENCE IN YOUTH BY:

1 Helping youth set their own goals.
2 Encouraging youth to make their own decisions.
3 Describing pathways to engage in science careers.
4 Communicating the value of science for all.