The 4-H Learning Experience

A Framework for Learning and Teaching in 4-H

4-H recognizes that learning is something that you do with your whole self, for your whole life, with your family, schools, and your community. Learning is not collecting ideas; it is about how you feel, how you see yourself, what you do, and who you are with. Learning is an integrated process where the learner, the educator, the physical space, and culture all are changed by each other. It's dynamic and complex and that's why it's important to pay attention to innovation in both the research on how people learn and the practical wisdom gained from educators and learners creating learning experiences together.

Learning and development are connected processes - both work together to help a young person thrive. Educators need to be intentional about helping young people develop - to guide the young person to articulate and reflect on the learning process so that they learn how to direct both their learning and growth. It's not enough to understand the research and best practices behind these experiences - educators also make the learning process explicit for youth so they are learning how to learn and grow as they learn and grow.

4-H learning is an active process where young people gain understanding, skills, dispositions, identities, and new habits of mind through hands-on experiences. 4-H learning is reflective and intentional. 4-H learning is also progressive, with experiences building on each other over time. 4-H learning is social and connected to a larger, real-world contexts. 4-H learning provides opportunities for youth to use what they have learned to improve their lives and their communities.

There is not one finite definition of 4-H learning - it is a dynamic experience in a shifting learning ecosystem that we better understand how to shape through research and reflective practice. It is a multi-dimensional experience that integrates *transformative relationships, learning environments, learning pathways, and learning outcomes (see diagram below).* In the center of the 4-H learning experience is the youth learner and the educator, connected by transformative relationships. Together learner and educator actively engage in progressive learning pathways through the learning environment towards learning outcomes.

Transformative Relationships

Transformative relationships are the heart of 4-H learning. Young people and adults learn together in 4-H; each person changing their self, others, and the environment. Learning experiences happen through social interaction guided by caring adults and peers. These relationships are built on a foundation of mutual respect. The learning relationship is a collaborative partnership where the youth learner and the educator (should) decide on the learning pathway and choose learning goals

together, in a developmentally appropriate way. Transformative relationships also include those between people and resources such as tools, language, technology, and culture.

Both the youth learner and the educator have important roles to play in this co-learning experience. Outcomes of this experience are:

- Emotion- Interests, attitudes, and motivation
- Understanding- Thinking about and using knowledge gained through experience
- Contribution- Positively impacting self, family, community, and society through authentic participation, service, and careers
- Practices- Habits of the mind to create and use understanding. Includes intellectual, social, and communication aspects.
- Identity- Individual's sense of self and of their relationships. Shared group identity.

Learner Practices

Youth are active participants and shapers of their learning experience. 4-H helps youth learn how to learn.

Be Well

To learn well, youth have to be well. This means helping them make healthy choices around exercise, food, and sleep. It also includes developing emotional wellness and self-regulation.

Be Curious

4-H learning inspires youth to ask questions and investigate the answers. 4-H learning is learnercentered. Learning experiences are fun, built on youth interests, questions, and their prior knowledge.

Nurture a Growth Mindset

4-H helps youth develop a growth mindset, approaching challenges with the intent to learn from them and the belief that they can develop deeper understanding and strengthen skills. 4-H is a safe space to not know and to fail and learn from failure. 4-H learning can help youth develop grit.

Make the Learning Your Own

4-H learning is experiential and requires active involvement. Young people learn by direct, authentic experience and then reflect on that experience individually and with their group of fellow learners. Youth seek feedback from educators and peers to deepen their reflection and learning. This reflection is transformational and is where youth create meaning from their experience.

Use and Share What You Learn

4-H learning has real-world application. A challenging real-world problem or question drives learning activities. Youth have the opportunity to explore meanings and prototype solutions, they can then demonstrate their learning through a public product, portfolio, or action. Youth can then apply that new understanding to new situations and to community action through progressive learning pathways. The youth learner is both creator of meaning and change agent.

Educator Practices

Educators may be Extension professionals, volunteers, or youth leaders. Educators set the stage for learning, considering the learning environment, activities, and learners and the relationships amongst them.

Be Ready to Learn

Educators are role models. They are ready to learn alongside youth and model effective learning practices.

Mentor and Lead

Educators are caring mentors and foster supportive developmental relationships with youth. Educators share leadership with youth learners, developing a shared purpose for the learning experience and involving young people in planning activities.

Guide Reflection and Inspire Youth Questions

Reflection helps young people articulate their learning process and achieve their goals. It helps connect that learning to the young person's life, the larger world, and their future. Educators ask questions to inspire youth to develop their own questions and guide youth reflection and metacognition. They use reflection to tie together previous and future learning experiences, in 4-H and other contexts.

Scaffold Learning

Scaffolding involves basing the learning experience on youth interests and strengths, then providing an appropriate challenge for new growth and skill-building. Educators offer concrete, descriptive, and behavior-specific feedback to support youth learning. They step back as youth grow confidence and proficiency.

Facilitate Active Learning

Educators enable exploration through experiential and inquiry-based learning. They lead activities that use multiple intelligences and provide opportunities for collaborative learning. They integrate technology into learning activities.

Learning Environment

4-H recognizes that learning happens everywhere. Learning environments are both physical and social spaces.

Safe Spaces

First and foremost, learning environments must be safe spaces. This includes physical and emotional safety. Set up the physical environment to be welcoming and provide diverse learners access to the experience. Everyone should be encouraged to fully participate and be recognized for their unique talents and skills. Everyone should strive to be respectful. 4-H learning experiences should be spaces for respectful disagreement and opportunities to learn from failure.

Systems Thinking

Learning in 4-H explicitly considers the context - including individual youth and the spheres that the youth is involved in. 4-H learning connects the multiple contexts of young people's lives - home, school, online, and community. While we don't always directly engage all contexts, networks, and relationships, we deliberately consider those layers and their influence when designing the experience.

Resources

4-H meets young people where they are and therefore curriculum, supplies, and technologies involved in learning experiences are selected and adapted to meet diverse needs and situations.

Social

4-H learning is social - young people learn with and from others. 4-H is a community of learners.

Culture

4-H learning honors and engages youth in the dynamic interplay of cultural influences on learning. This includes the youth and family's culture, the 4-H organizational culture, and the culture of the larger learning community (e.g. the science community), among others.

Learning Pathways

4-H learning experiences are connected in active, progressive learning pathways. Experiences are designed with the end in mind, so that each experience builds on the last. Learning experiences are designed for frequency and duration that build learning over time. Learning pathways spark youth interest, deepen their learning, and sustain their growth. 4-H learning pathways provide hands-on, real-world learning that takes place in community and provides young people opportunities to develop relationships, skills, and leadership. They focus on contribution - young people learn by doing for themselves and for others. Pathways may be different for each young person. The learning purpose, goals, and outcomes of these pathways are determined in partnership by everyone involved.

Learning Outcomes

4-H learning experiences help youth find ways to achieve their goals and explore their purpose. 4-H programs emphasize supporting young people to take active roles in their own learning and growth across all domains of their life, expanding their capacity to achieve the successes they want in life, and to thrive. Learning involves a change in young people, which may include intertwined aspects of knowledge, reasoning skills, motivations, dispositions, identity, and contribution.

 Knowledge: Information and content that learners develop understanding about through experience and education. Youth act on knowledge to develop competence, which enables them to apply and practice new life skills in new roles.

- Reasoning Skills: The cognitive skills needed to understand and evaluate information. For example, asking questions; analyzing and interpreting evidence; making inferences and constructing explanations based on data.
- Motivations: Includes positive attitudes toward and interest in learning, growth mindset, engagement, and future aspirations.
- Dispositions: Tendency to act in a certain way, including a person's interests and attitudes.
 Lifelong learning can be supported by three important dispositions: resilience, reciprocity, and playfulness.
- Identity: How one sees and expresses oneself. Affiliation and identify influence attitudes towards and engagement in learning.
- Contribution: Participation in learning activities within a community and engagement with cultural practices, routines, and tools. Community engagement promotes lifelong learning; allows for authentic participation at multiple levels; favors autonomous thinking; and is a key element of experiential learning.

4-H learning experiences involve youth in the work of Cooperative Extension, which includes Agriculture and Food Systems, Citizenship, Healthy Living, and STEM learning opportunities.

4-H helps youth find personal and career pathways in life. Youth develop their agency, belonging, and competence while becoming engaged leaders in their communities to positively impact the world.

This document was prepared by the National 4-H Learning Working Group, 2016. The lead writers were Alexa Maille (Cornell University), Kristy L. Ouellette (University of Maine), and Steven Worker (University of California). Contributors were Rukeia Draw-Hood (Prairie View A&M University). Amanda Marable (University of Georgia), Amy McCune (4-H National Headquarters, USDA-NIFA), Madonna Weese (University of Illinois), and Ryan Wynkoop (Purdue University).

Further reading

- Giere, R. N., Bickle, J., & Mauldin, R. F. (2006). Understanding scientific reasoning. Toronto: Thomson Wadsworth, 5.
- Greeno, J. G., Collins, A. M., & Resnick, L. B. (1996). Cognition and learning. In D. Berliner and R. Calfee (Eds.), Handbook of Educational Psychology (pp. 15-46). New York: MacMillian.
- Irvin, J. L., Meltzer, J., & Dukes, M. (2007). Student motivation, engagement, and achievement. In J. L. Irvin, J. Meltzer, & M. Dukes (Eds.), Taking Action on Adolescent Literacy: An Implementation Guide for School Leaders (Ch. 1). Alexandria, VA: ASCD
- National Research Council. (2012). A framework for K-12 science education: Practices, crosscutting concepts, and core ideas. Washington, DC: The National Academies Press.
- Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. Educational Researcher, 27(2), 4-13.

www.whatkidscando.org/featurestories/2013/01_how_youth_learn/

Experiential Learning

- Dewey, J. (1938). Experience and education. New York: Touchstone.
- Fenwich, T. J. (2000). Expanding conceptions of experiential learning: a review of the five contemporary perspectives on cognition. Adult Education Quarterly, 50(4), 243-272.
- Greeno, J. G. (2006). Learning in activity. In R. K. Sawyer (Ed.), The Cambridge Handbook of the Learning Sciences (Ch. 6, pp. 79-96). New York, NY: Cambridge University Press.
- Kolb, D. (2014). Experiential Learning: Experience as the Source of Learning and Development, Second Edition. New Jersey: Pearson FT Press.

Learning and Development

- Carr, M., & Claxton, G. (2002). Tracking the development of learning dispositions. Assessment in Education: Principles, Policy & Practice, 91(1), 9-37.
- Dweck, C. S. (2006). Mindset: The new psychology of success. New York: Random House.
- Gee, J. P. (2001). Identity as an analytic lens for research in education. Review of Research in Education, 25, 99-125.
- Kroger, J. (2006). Identity development: Adolescence through adulthood (Second Edition). Thousand Oaks, CA: Sage Publications, Inc.
- Larson, R. (2000). Toward a psychology of positive youth development. American Psychologist, 55, 170-183.
- Pittman, K., Irby, M., Tolman, J., Yohalem, N., & Ferber, T. (2003). Preventing problems, promoting development, encouraging engagement: Competing priorities or inseparable goals? Washington, DC: The Forum for Youth Investment, Impact Strategies, Inc.

- Search Institute (2014). The Developmental Relationships Framework. http://www.search-institute.org/downloadable/Dev-Relationships-Framework-Sept2014.pdf
- Steinberg, Laurence (2014). Age of Opportunity: Lessons from the New Science of Adolescence. Boston: Eamon Dolan/Houghton Mifflin Harcourt
- Stetsenko, A., & Arievitch, I. (2002). Teaching, learning, and development: A post-Vygotskian perspective. In G. Wells & G. Claxton (Eds.), Learning for Life in the 21st Century: Sociocultural Perspectives on the Future of Education (chapter 7). Oxford, UK: Blackwell Publishing Ltd.
- The Teenage Brain: Reseach Highlights

 http://www.howyouthlearn.org/research_teenagebrain.html
- Vygotsky, (1978). Mind in society. Cambridge, MA: Harvard University Press.

Learning Environments

- Barab, S. A. & Duffy, T. (2012). From practice fields to communities of practice. In. D. Jonassen & S. Land (Eds.), Theoretical Foundations of Learning Environments (2nd ed., pp. 29-65). New York: Routledge.
- Bevan, B., & Michalchik, V. (2013). Out-of-school time STEM: It's not what you think. In B. Bevan, P. Bell, R. Stevens, & A. Razfar (Eds.), LOST Opportunities: Learning in Out-of-School Time (pp. 201-217). New York: Springer.
- Blumenfeld, P., Marx, R., & Harris, C. (2006). Learning environments. In W. Damon & R. Lerner (Eds.) Handbook of Child Psychology. Volume 4: Child Psychology in Practice. Sixth Edition (pp.297-342). Hoboken, NJ: John Wiley & Sons, Inc.
- Lave, J. & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. Cambridge University Press.
- Nasir, N. S. & Hand, V. M. (2006). Exploring sociocultural perspectives on race, culture, and learning. Review of Educational Research, 76(4), 449-475.
- Rogoff, B. (2003). The cultural nature of human development. New York, NY: Oxford University Press.
- Vadeboncoeur, J.A. (2006). Engaging young people: Learning in informal contexts. Review of Research in Education, 30, 239-278.