

Hatching STEM Thinking with 4-H Embryology

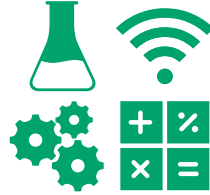


UNIVERSITY OF DELAWARE
**COOPERATIVE
EXTENSION**

RELEVANCE



Analytical thinking is important!



STEM projects (science, technology, engineering and math) help 4-Hers practice analytical thinking...



...while working with others to build and improve their interpersonal skills.

RESPONSE



Delaware 4-H provides

4-H EMBRYOLOGY IN THE CLASSROOM

to schools throughout the state!



Participants receive an incubator, eggs, and educational materials.

RESULTS

The 4-H Embryology in the Classroom reached

 7,712

participants from

 306

classrooms,

 7

libraries, and

 1

women's correctional facility.



96%

reported that their students' perceptions of science were enhanced.



84%

reported an increase in their students' patience, cooperation, sharing and responsibility.



83%

reported an increase in student observation, comparison, measurement and data recording skills.



91%

reported that their students learned through seeing, listening, observing, experimenting and applying their knowledge to real-world situations.

RELEVANCE

The ability to think analytically—solve problems, make sense of information and know how to gather and evaluate evidence to make decisions—is essential as youth grow into adulthood. The STEM disciplines, including science, technology, engineering and math, allow them to practice this analytical thinking regularly while working with others to build and improve their interpersonal skills.

RESPONSE

To help students develop these skills, Delaware 4-H provides 4-H Embryology in the Classroom to schools throughout the state. Participants receive an incubator, incubated eggs and educational materials that create up to two weeks of hands-on experiential learning as the chicks hatch and grow.

RESULTS

In 2022, 4-H Embryology in the Classroom reached 7,712 participants (7487 youth) from 306 classrooms, seven libraries throughout the state and one women's correctional facility.

The post-program survey of 76 teachers showed the program's impact:

- 96% reported that their students' perceptions of science were enhanced.
- 84% reported an increase in their students' patience, cooperation, sharing and responsibility.
- 83% reported an increase in student observation, comparison, measurement and data recording skills.
- 91% reported that their students learned through seeing, listening, observing, experimenting and applying their knowledge to real-world situations.

One teacher's favorite part of the program was "witnessing the students' excitement and helping them to make cross-curricular connections with reading, writing, science and even math!"

RECOGNITION

This program was made possible by the New Castle County Department of Community Services, the United States Department of Agriculture and the University of Delaware.

PUBLIC VALUE STATEMENT

4-H Embryology in the Classroom provides a hands-on learning experience that helps youth build their problem-solving, critical thinking and interpersonal skills.