

# From Egg to Chick



Chaves County  
Cooperative  
Extension Service

## The Situation

One of the three National 4-H mission mandates are to increase interest in science, technology, engineering, and math as youth have shown a decreasing interest in these four areas upon graduation.

As a result, the needed workforce to fill vacant positions in those four areas have increased.

In addition, New Mexico science standards expect fifth grade students to :

- Understand the scientific investigation processes
- Use inquiry and scientific ways of observing, experimenting, predicting and validating to think critically
- Understand properties, structures, and processes of living things.

## **Contact Information:**

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New Mexico State University

College of Agriculture,  
Consumer and  
Environmental Sciences

## Extension Response

Chaves County Cooperative Extension Service partnered with local schools in 2018 to provide training to 13 fifth grade classes to spark interest in science through the Egg to Chick Embryology program. Three hundred and sixty-eight students participated in the program.

Students were instructed on:

- Parts of the egg
- Incubator set-up
- Embryo development
- Chick care



Students recorded:

- Hatching predictions
- Daily embryonic development changes
- Daily incubator humidity & temperature

Following hatching, students cared for and observed the chicks in their classroom. Impacts were measured using pre and post evaluations.

## Impact

A total of 263 evaluations were completed by students. Overall, students' understanding of embryology improved by 60% through the scientific investigation process.

Students post-evaluation responses compared to the pre-evaluation showed a:

- 67% increase in understanding of how many eggs a chicken can lay in one day
- 50% increase in knowing how many incubation days a chicken egg takes to hatch
- 17% increase in knowledge of embryonic development changes
- 23% increase in knowledge of the bacterium *Salmonella* and the understanding that it is carried by eggs and chicks

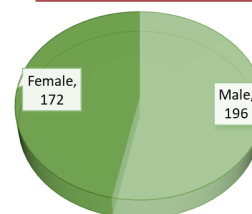


Teacher Feedback:

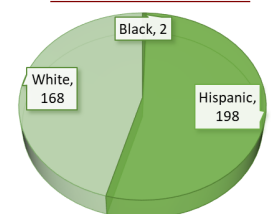
"The program is a fun way to incorporate science into our classroom."

"My students and I loved the program and having the chicks in our classroom!"

Gender Distribution



Racial Distribution



## Funding

Chaves County Cooperative Extension Service

New Mexico State University is an equal opportunity/affirmative action employer and educator. NMSU and the U.S. Department of Agriculture cooperative.