

Egg-citing Science

Integrating Life Science into Classrooms

SITUATION

Over half (53%) of the elementary schools in Valencia County are rated with a letter grade C or below by the NM Public Education Department. Teachers resources and time are limited thus science has not been set as a priority. Valencia County teachers have requested programs that incorporate agriculture and science into their current classroom curriculum. What was once a small rural community has quickly become very urban, however backyard poultry remains popular in our area.



RESPONSE

Valencia County 4-H Youth Development agents incorporated the Egg-to-Chick program into seven elementary schools in Valencia County in 2014.

Through this program, students have the opportunity to participate in hands-on classroom experiments which teach students about complex systems such as life cycles and circulatory systems. In addition basic science is addressed through data collection and the scientific process. This project helps students learn biological concepts and helps to develop a deeper understanding of life sciences. Students are able to observe and examine embryos at different stages of growth, witness a beating heart and observe chick hatching and post hatching development.

Agents provide at no cost to classrooms:

- 5 hours of instruction
- Incubators & guides
- Fertilized eggs
- Observation journals
- Live chick habitats
- Completion certificates

This classroom program supports the 4-H STEM initiative.

IMPACT

Since its inception, more than 1,310 students have participated in Egg-to-Chick programs in Valencia County. As indicated by the student survey conducted in 2018, 86% of students have a better understanding of the scientific process and 83% have a better understanding of the chicken life cycle.

Eighty-three percent of students now understand that not all chickens lay eggs and 86% students understand that not all eggs are fertilized when laid.

Finally, students understand there is a relationship between science and agriculture. Eighty-four percent of students indicated they understand agriculture is an important part of our every day life.

STUDENT/TEACHER FEEDBACK

"The egg to chick program provided my students the ability to learn life cycles in real time. They gained new vocabulary, counting skills (days until hatching), and science skills. The students learned responsibility for keeping humidity and temperatures at a good level and self-control when the chicks hatched." – A. Robinson (*teacher*)

"Zachary doesn't engage in normal classroom activities. This was the first time all year, he was engaged, and asked questions about our work without any prompting." - T. Silva (*teacher*)
In reference to a special needs student participating in the program.

"I liked watching the chickens hatch."
"I learned a lot from taking care of the baby chicks."
"I liked watching the chicks grow in their shells."
"I liked seeing the heart beating in the egg."



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