



VIRGINIA BEACH COOPERATIVE EXTENSION

# 4-H IN-SCHOOL ENRICHMENT

## 2022 SPRING REPORT

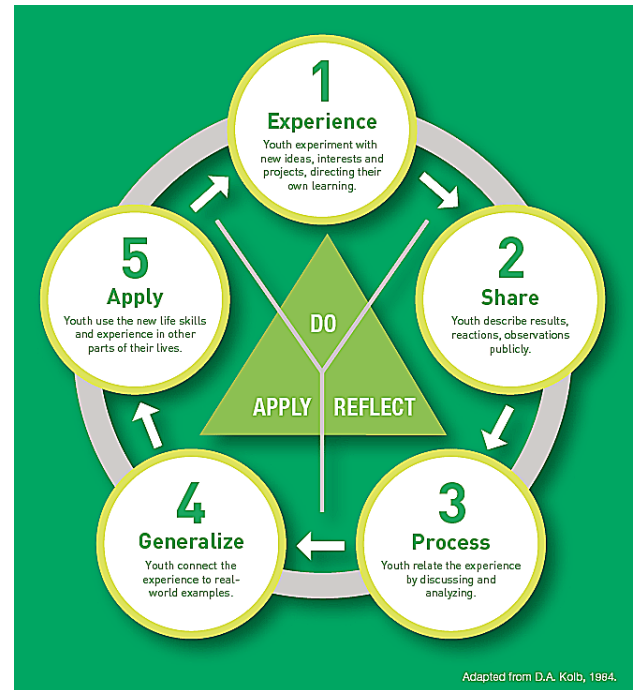
MAY 2022 // PREPARED BY JONETTE MUNGO, 4-H EXTENSION AGENT, VIRGINIA BEACH.  
JMUNGO@VBGOV.COM / 757-385-8153

STEM education is a primary focus of Virginia 4-H. Many STEM practices have real-life applications to Agriculture which is why we also use STEAM (Science, Technology, Engineering, **Agriculture**, Math) to describe units of study available through our 4-H In-School Enrichment mode of delivery.

Since 4-H began In-school programming with Virginia Beach Public Schools, three schools have been regular recipients of 4-H programming: Three Oaks Elementary, Parkway Elementary, and SECEP Renaissance Academy.

The following units have been taught:

- Electricity
- Ocean Environment
- Earth, Moon, Planets, and Sun
- Sound
- Light
- Jamestown & Colonialism
- Life Cycle and Science



4-H programs follow the Experiential Learning Model (top image) which provides students with a meaningful and purposeful approach to learning that engages young learners in being practitioners of new concepts and lessons to help them take control of their learning. Through hands-on learning, students develop life skills that are represented in the 4-H Life Skills model reflective of 4-H's four youth development areas: Head, Heart, Hands, and Health. (bottom image)



4-H is a city & state provided  
**RESOURCE**

The City of Virginia Beach has invested in Virginia Cooperative Extension (VCE) which has made the services of our office open and available to all Virginia Beach residents and schools. 4-H is the youth leadership and development component of VCE. Programming is grounded in research-based curriculum delivery and experiential learning opportunities for all youth. Virginia Beach Cooperative Extension is housed under the VB Agriculture Department in Building #14.



Virginia Cooperative Extension is a partnership of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and local governments. Its programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, military status, or any other basis protected by law.

4-H delivers research-based educational programming. The mission of 4-H is to assist youth, and adults working with those youth, to gain additional knowledge, life skills, and attitudes that will further their development as self-directing, contributing and productive members of society.

The 4-H emblem is federally protected under Section 18 US Code 707 and belongs to the Congress of the United States. The official emblem is green with white H's -- the 4-H colors. The white symbolizes purity and the green represents nature's most common color and is emblematic of youth, life, and growth.

On April 1, 2022, Gov. Glenn Youngkin signed a Wise County 4-H Youth's proposed bill into law. That bill recognizes the educational strength of 4-H programs while acknowledging the hard work and dedication that participants have invested into their 4-H educational projects. Civic Engagement is one of the impactful areas of 4-H, and this 4-H Bill, now Virginia Law § **22.1-207.7**, is a great example of how youth can impact their community when supported by the community and caring adults.



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*Virginia History SOL Support*

## THE 4-H HAM PROJECT

Virginia Beach 4-H conducts an annual 4-H Ham Project in which youth and families learn to cure and create a traditional Virginia Country Ham. Each year Virginia Beach Cooperative Extension 4-H along with Agriculture and Natural Resources work together with retired ANR Extension Agent Cal Scheimann to lead participants through the completion of this project. This year 21 youth and 68 adults have created 169 Virginia Country Hams.

**Hams are supplied through a partnership with Smithfield Hams who this year donated all of our project hams.**

The goal of this project is to teach the Virginia Beach community about this unique Virginia tradition in hopes to preserve the legacy and educate on safe food preservation practices. This year 4th-grade students at Parkway Elementary participated in Virginia Beach 4-H's Surviving Jamestown Unit during which they learned all about the Virginia tradition of salt curing and smoking hams.

Virginia Beach 4-H documented each step of the process and created a curated playlist of videos for students to watch. After learning of the 4-H Ham Project students one student asked, "Can you sponsor a ham for us?" Students were surveyed about their interest in the 4-H Ham Project. 53% of students surveyed replied "Yes" that they were interested. 17% of students surveyed replied "Maybe" if given the chance. Next year, Virginia Beach 4-H plans to offer 4th-grade teachers the opportunity to have their class participate in this project as part of their Jamestown and Colonial Virginia History Unit.



*Virginia History SOL Support*

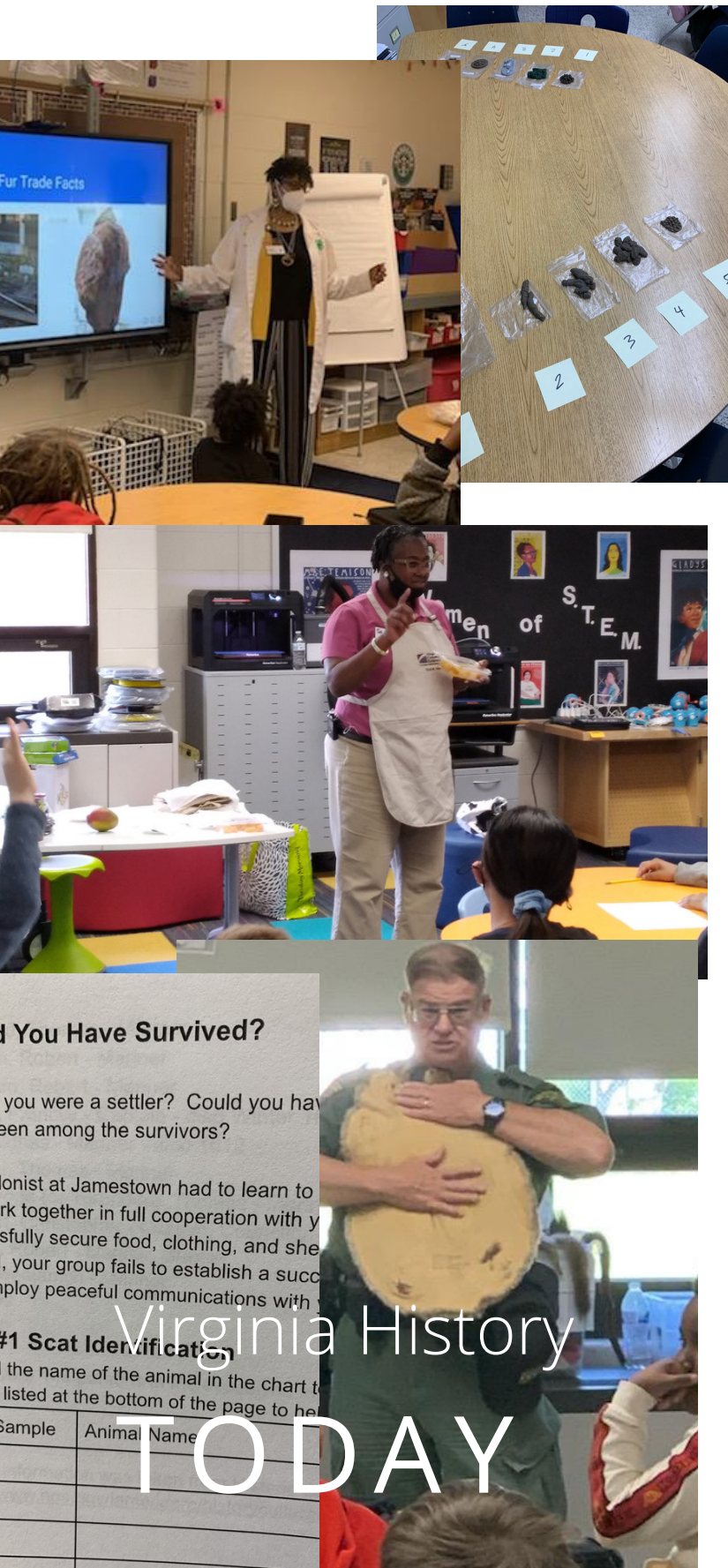
## 4-H SURVIVING JAMESTOWN

Virginia History and Colonialism is a big part of the 4th-grade curriculum. While working with Parkway Elementary's 4th-grade team and principal, Dr. Catania, there were observable behaviors and content areas that 4-H in-school enrichment could also provide support. These things were achieved through Surviving Jamestown.

Students were presented with hands-on challenges that reiterated the importance of working together and cooperation in decision making. Together they were challenged to understand how agriculture, water conservation, food preservation, wildlife studies, environmental studies, economics, and trade relations were crucial to the survival of our early settlers. 4-H partnered with the Virginia Beach Snap-Ed Extension Agent, Bertrille Lomax, who led students on lessons regarding health and nutrition that would impact the low mortality of the settlers. Game Warden Dan Corley, Department of Wildlife Resources, was also a partner in the series.

Officer Dan spoke with students about hunting and wildlife conservation as well as showed students many different types of animal pelts from native Virginia wildlife- all pertinent to help illustrate how the fur trade impacted the economic success of the colonies and also led to wars that created the foundation of forming the United States of America.

Student responses gathered following the Surviving Jamestown series are summed up on the next page.



Virginia History  
TODAY

At the conclusion of the 4-H Surviving Jamestown classroom series, we asked students to identify the most challenging components. There were three components students identified equally as being the toughest part:

- Working with people in cooperative learning groups
- Identifying animal scat and tracks
- Figuring out how much food was needed in order for their colony to survive

It is always great to discover what lessons have the biggest impact on the younger students when delivering a unit with many components like 4-H Surviving Jamestown. Students were asked to provide feedback on how impactful specific lessons were on their overall understanding of the Jamestown and Colonialism unit of study. Students reported the following items as being the most favorable.

- 98% - Having a better understanding of how food safety, clean water, and farming impact health and survival
- 96% - Having a greater appreciation of agriculture
- 96% - Having a greater understanding of how working together increases the possibility that a community will survive
- 94% - Having a greater appreciation for health and nutrition
- 92% - Wanting to learn more about food nutrition and cooking
- 92% - Wanting to learn more about Natural Resources

It was also noted by the 4-H Agent and the cooperating teachers that while students struggled to work cooperatively at the start of this unit, by the end, each group had independently learned how to communicate with each other resulting in increased success in completing the experiential challenges.





*Life Cycle Science SOL Support*

## 4-H EMBRYOLOGY PROJECT

4-H has many animal science curriculums and projects for youth in the city of Virginia Beach. The annual 4-H Embryology project reaches classrooms across the city to provide hands-on learning that supports Virginia Living Systems and Processes SOLs.

**58 teachers, 26 schools, and approximately 1,634 students took part in the project.** Embryology gives students the opportunity to develop life skills related to science processes, teamwork, keeping records, planning, and organizing. Students also learn that animals and humans have basic life needs that allow them to survive while studying the life cycle of organisms which aligns with VA Learning Standards.

The Embryology Project also allows students to observe animal behaviors, explore genetics, and learn about the importance of biosecurity in animal and food production.

**Out of the 810 eggs provided to classrooms for incubation, only 324 hatched- a 40% hatch rate.** It is well known that not all incubated eggs will hatch which provides students with great experiential lessons about genetics and probability. 4-H has the initiative to educate and provide professional development opportunities to improve the hatch rate for this project. Greater success is achieved by training teachers on research-based best practices so they can engage their students in safe and effective scientific inquiry and processes.

This project impacts the community as chicks are given to local poultry farms that supply fresh eggs daily to local restaurants and food pantries.



*Life Cycle Science SOL Support*

## BUNNIES IN THE CLASSROOM

One of the many challenges observed in several post-COVID classrooms is behavior management. Bunnies in the Classroom was a great way to motivate students to better manage their own behavior. Boisterous behavior adversely affects the rabbit's responses and ability to build trust with the students.

4-H has two French Angora rabbits, Creme Brulee, that visit classrooms to engage students in lessons that center on observing animal behaviors, mapping genetic traits using the Punnett square, exploring food webs and habitats, evaluating ecosystems, and learning animal care and responsibility.

Creme Brulee brings a fun hands-on approach for students to study and classify the different types of rabbits with a focus on varieties of Angora. Lessons cover a variety of Science learning standards including VA Learning Standards LS.3, LS.6, LS.7, LS.9, K.7, 1.5, 2.4, 2.5, 3.5, 4.3,

4-H is dedicated to also teaching youth how agricultural products like wool contribute to the economic systems. Creme Brulee are 4-H Bunny Ambassadors for entrepreneurial enterprises that focus on specialty crafted goods further exposing students to financial literacy. Third grade Social Science and History learning objective 3.8 and Economics and Personal Finance objectives allow students to explore goods, resources, and services. Students learn ways of spinning animal fibers to produce fabrics and clothing and evaluate the market cost and value of goods.

4-H and FCS curriculums utilize these standards to teach students financial literacy.

|                         |                      |
|-------------------------|----------------------|
| Kids Market Place       | 3rd Grade students   |
| Real Money. Real World. | 8th Grade Students   |
| Reality Store           | High School Students |





**Virginia Beach Cooperative Extension delivers many programs that support VBCPS classroom instruction and aligns to VA SOL standards.**

**Teachers also have the opportunity to participate in Professional Development trainings that prepares them for classroom participation in one of our 4-H specialty projects and programs.**

#### **4-H IN-SCHOOL STEAM YOUTH REACH JAN.-APRIL 2022**

|                                    |     |
|------------------------------------|-----|
| Parkway Elementary Students        | 61  |
| Three Oaks Elementary Students     | 108 |
| Renaissance Academy SECEP Students | 30  |

#### **4-H IN-SCHOOL PROGRAM HOURS**

|                                    |             |          |
|------------------------------------|-------------|----------|
| Parkway Elementary Students        | 11 programs | 15 hours |
| Three Oaks Elementary Students     | 6 programs  | 7 hours  |
| Renaissance Academy SECEP Students | 6 programs  | 6 hours  |

**Horticulture/Master Gardener Coordinator**  
Andrea Davis

**FNP Youth Program Assistant**  
Laurel Wilcox

**SNAP-ED Agent**  
Bertrille Lomax

**FCS Agent**  
Karen Munden

#### **FINANCIAL LITERACY YOUTH PROGRAMS PROVIDED THROUGH FAMILY CONSUMER SCIENCE (FCS) EXTENSION PROGRAM**

**Reality Store Jan. - April 2022**

887 Students Reached

#### **FAMILY NUTRITION PROGRAM (FNP)- YOUTH EXTENSION PROGRAM OCTOBER 2021-APRIL 2022**

**Nutrition and Health Programming**  
715 Students Reached

#### **HORTICULTURE AND GARDENING THROUGH THE MASTER GARDENER AND EXTENSION HORTICULTURE PROGRAM**

Soil composition and Plant Life Cycles

3,000 Students reached January- April 2022

### **4-H PROFESSIONAL DEVELOPMENT OPPORTUNITIES FOR TEACHERS**

- Ham Project School Participation and SOL support
- Surviving Jamestown and Colonialism Classroom Series
- Embryology Project for Beginners and Experienced Participants
- 4-H Day at the Capitol: Civic Engagement for Youth
- Bunnies in the Classroom: Ecosystems, Habitats, Personal Finance, and Animal Science