# WILSON COUNTY 4-H





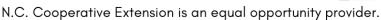




# School Enrichment & After-School Programming

"Learn by doing"





#### **CONDUCTING 4-H SCHOOL ENRICHMENT PROJECTS**

4-H school enrichment projects are:

- A cooperative effort between the school and 4-H
- Free of charge (for most materials)
- Meets NC Standard Course of Study (contact us for exact standards if needed).

#### What are my responsibilities?

- Provide a group of at least 10 youth ages 5-18.
- The Extension 4-H Agent/Program Assistant is responsible for training and explaining 4-H enrichment curricula to the teachers.
- Teachers are responsible for providing staff with necessary forms.
- Students should be aware that they are participating in a 4-H project when 4-H curricula are used.

#### STATEMENT OF POLICY

The North Carolina 4-H Program provides, free of charge, one teacher/leader guide, and one member/student manual per project (if applicable). Additional copies may be obtained, based on availability.

All teachers participating in North Carolina School Enrichment Programs must complete report and evaluation forms for accountability purposes as required by NC Cooperative Extension and/or the State Department of Instruction.

The 4-H name and emblem are held in trust by the Secretary of Agriculture of the United States Department of Agriculture for the educational purposed only. The 4-H name and emblem may be used only by authorized representatives of USDA, the land grant universities, and the Cooperative Extension Service.

We look forward to working with you this school year. NC Cooperative Extension and 4-H programs have a long-standing history in the school system. If there is something you do not see listed, please contact our office to see what we can do.

#### Sincerely,

**Allison Matthews** 

NC Cooperative Extension, 4-H Agent

Wilson County

**Kenyatta Dixon** 

NC Cooperative Extension, 4-H Agent

Wilson County

**Antonia Lucas** 

NC Cooperative Extension, 4-H Program Assistant

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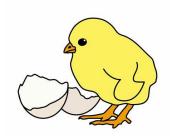
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# **In-School and After-School 4-H Curricula** in Wilson County:

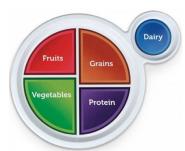
#### **EMBRYOLOGY K-12TH grade**

Egg-splore the science of embryology from egg to chicken. You will receive an incubator, a dozen eggs, brooder box supplies, and informational notebook. Live chicks cannot go home with students and disinfect resources before returning materials. It takes about 4 weeks to complete and needs 24/7 monitoring for proper incubation and success. This program can only be done in September-October or March-May due to outside temperatures. Advance notice is needed to secure supplies. \*Please note that this program may involve egg/chick termination/death and younger audiences may not be ready for that type of subject matter.\*



#### **HEALTHY LIVING K-12<sup>TH</sup> GRADE**

Designed with 11 lessons, that engage students in activities that stress healthy eating and its relationship with good health. It can be catered to fit your group.



#### ROBOTICS 1ST-12TH GRADE

Youth will participate in activities that build confidence, enhance problem-solving skills, increase leadership skills, and more through coding and programming.



#### ACRES OF ADVENTURES K-5<sup>TH</sup> GRADE

This group activity guide for the after-school teacher will quickly engage youth in learn-by-doing agriculture activities within the following thematic units: All About Agriculture, Fast Food Agriculture, Mystery Agriculture, and Plant Detectives.



#### WINGED WONDERS K-5TH grade

In this curriculum, youth will observe the wonders of the natural world unfolding in front of them by raising painted lady butterflies from larva through adulthood. Youth will experience the mystery of the butterfly life cycle while engaging in hands-on activities that explore concepts of insect structures and functions, compare insect behaviors and life cycles, and demonstrate the role everyone can play in environmental stewardship. This program can only be done in September-October or March-May due to outside temperatures.



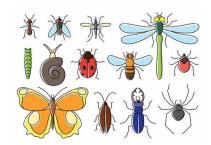
#### MOOVING MILK FROM THE FARM TO THE FRIDGE K-3<sup>RD</sup> grade

4-H "Mooving Milk from Farm to Fridge" is a curriculum developed in partnership with the North Carolina State University Department of Animal Science, The Randleigh Dairy Heritage Museum, and The Dairy Alliance. In this unit, youth trace Clover the Cow's growth from calf to a dairy cow. Along the way, they learn about the dairy industry and how dairy foods can contribute to a healthy diet. The lessons in the unit feature dramatic roleplay, math, science, social studies, and literacy activities.



#### **BUG OUT 2<sup>ND</sup> – 5<sup>TH</sup> GRADE**

Bug Out is a series of insect-based activities that emphasize experiential, hands-on learning. The goal of Bug Out is to increase understanding and appreciation of insects and to reduce the fear of insects. Bug Out also stimulates thinking ability, develops communication skills, and promotes positive social interactions. This will provide a fun, positive learning situation for young people, grades 2–5, when you follow the Bug Out lesson plans. Most of these activities are best done during the summer or fall when insects are the most common and active out-of-doors.



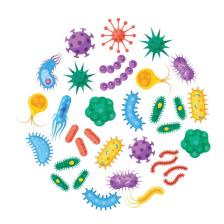
#### **SOIL SOLUTIONS 3RD grade**

Soil Solutions brims with hands-on science lessons that utilize the local school landscape to connect students to the world of soils and plants in an inviting and relevant way. Students will discover the soil beneath their feet, watch as a basil seed germinates before their eyes, and nibble on nutritious and delicious salad greens they have grown themselves. Activities are structured to foster wonder and curiosity and encourage ways to turn student question s into investigations. Aligned to meet North Carolina's third-grade science standard course of study in plant and soils, the curriculum draws from current research and knowledge in crops, horticulture, and soil sciences.



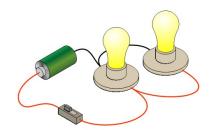
### I AM AN ECOSYSTEM, AN ELEMENTARY INTRODUCTION TO MICROBES 3<sup>RD</sup> – 5<sup>TH</sup> GRADE

In this unit, youth will confront some of the myths and facts surrounding microbes in general and Salmonella in particular. Youth will examine where microbes grow in the environment and under what conditions. They will investigate the roles that microbes play in a healthy ecosystem as well as the roles that microbes play in our own bodies. Youth will also examine the negative effects of microbes as they investigate a disease outbreak. Finally, youth will apply their knowledge by designing technologies to help keep people safe from dangerous, foodborne microbes in our world.



#### MAGIC OF ELECTRICITY 4<sup>TH</sup> GRADE

Youth build circuits & test voltages, build a rocket launcher & a burglar alarm as they practice decision-making & communication. This unit is designed for youth who understand magnetism, electron flow & circuit design.



#### **VERMICOMPOSTING 5<sup>TH</sup> GRADE**

The 4-H Vermicomposting program offers fifth-grade students an opportunity to explore a micro-community. This community contains producers, consumers, and decomposers (as all communities do), and students are encouraged to reflect upon their learning as they achieve mastery of the concepts in producing this curriculum we have kept in mind that teachers are busy people.



#### **ENERGY TRANSFORMATION 6th-8th**

Energy Transformation is an engaging, hands-on science curriculum that demonstrates the effects of energy use in our world. Whether comparing the amount of energy radiating from different types of light bulbs or watching air escape a structure that appears sealed, youth will use scientific inquiry to make abstract concepts concrete for themselves. Youth will learn about the sources and history of the energy we use and observe how their energy consumption will affect the future. Connecting this understanding to their own lives, youth will see that they have the power not only to reduce their parents' electric bills but also to improve the health of their planet.

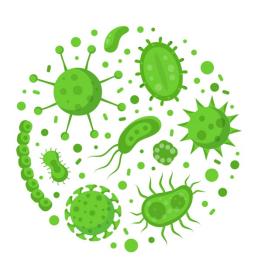


# MICROBES ON MY MIND - A MIDDLE SCHOOL PERSPECTIVE $6^{TH}$ – $8^{TH}$ GRADE

Participants will discover the role microbes play in our bodies, our ecosystem, and our food. The activities provided will make it easy for the facilitator to explain the impact microorganisms have on humans in an interactive and engaging experience. These lessons are designed to encourage curiosity, resilience, and cooperation in our learners that will allow them to develop an understanding of the relationship between food safety, microbiology, and diseases, as well as the careers associated with microbiology. Participants will make connections between their existing knowledge of microorganisms, human health, and potential career paths related to this topic.

Through the activities in this unit, participants will deepen their understanding of microbes in history, where they can be found, how to prevent the spread of microbes on them and in their food, and how certain careers have advanced to provide a better understanding of microorganisms. Participants will walk away knowing that microbes are a part of their everyday life and that not all microbes are harmful, but some can also be beneficial.

Middle school participants will address some of the misconceptions surrounding microbiology and gain a better understanding of how important microbes are in our ecosystem. Participants will gain an understanding of the importance of food safety and the precautions that need to be taken to keep their bodies healthy and protected.



## MICROBES: THE WORLD WITHIN - HIGH SCHOOL EXPLORATION 9<sup>TH</sup>-12<sup>TH</sup> GRADE

The unseen world of bacteria, the microscopic kingdom of life, has an enormous impact on our everyday lives. This series of lessons and activities seek to provide participants with an interactive look at the microbial world from a variety of approaches.

Contact WILSON COUNTY 4-H if interested in implementing any of these programs in school or after-school. We are available to public schools, private schools, homeschool groups, after-school programs, church groups, and more! We can supplement the curriculum and adjust it to fit your needs and grade-level, just please let us know in advance. Also please let us know if you have any questions or concerns. We are here to help you provide youth with hands-on learning experiences!

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