



HUB FARM

DURHAM PUBLIC SCHOOLS



EDUCATION PROGRAMS 2019

DURHAM PUBLIC SCHOOLS HUB FARM

ABOUT US



The Hub Farm is a 30 acre farm, forest, meadow and aquatic habitat in Durham, North Carolina. We engage Durham Public Schools students, teachers, and the greater Durham community in diverse outdoor learning and career development.



We offer 3 categories of lessons:



NC Standard Course of Study

We teach NC Standard Course of Study (NCSCOS) lessons in all subjects, K-12. Teachers may choose from existing Hub Farm lessons, or work with the Hub Farm staff to develop a new class-specific lesson.



Project Based Learning

The Hub Farm offers long term project-based experiences. Students study a problem, brainstorm solutions, and work together to implement their project. Finally, they evaluate their experience.



Experiential Learning

We believe that engaging in meaningful work is key to developing responsibility, stewardship, and self confidence. We involve small groups of students in daily maintenance, seasonal projects, and animal care.



STANDARD ALIGNED LESSONS

K-5 ELEMENTARY

Children's innate love of nature makes the Hub Farm a perfect place to engage elementary school students in learning. Through a hands-on, interdisciplinary approach our lessons enhance understanding in Math, Science, Social Studies, and Language Arts. We also work with teachers to address specific needs. Here are some examples of what we offer:

ELA

Story Chefs: Read a children's book and then create a related recipe.

Nature Poetry: Practice using adjectives to describe observations.

Informative Writing: Learn how to do a task on the farm then write an instructional text to help others.

CRR Anchor Standards W.2, RI.2, W.3, RI.3

MATH

Garden Detective: Scavenger hunt using shapes, numbers, and measurement.

Cooking with Math: Use recipe to practice volume, fractions, measurement.

Graphing on the Farm: Collect and graph data on different aspects of the farm.

1.1, 1.NBT, 1.OA, 3.MD, .3.G, 3.NF, 5.MD, 5.NF

SCIENCE

Ecosystem Hike: Explore our grounds & compare and contrast pond, forest, and garden ecosystems.

Chicken Party: Learn the needs and uses of farm animals.

Roots and Vegetables: Discover the parts of a plant and their function through harvesting.

1.L.1, 1.E.2, 3.L.2, 3.E.2, 5.L.2, 5.P.2



STANDARD ALIGNED LESSONS

6-8 MIDDLE SCHOOL

For middle school students, the Hub Farm offers dynamic hands-on lessons that provide real world applications of Science, Math, Social Studies, and Language Arts. We also work with teachers to address specific needs. In addition to traditional subjects, we incorporate culture, art, and healthful living into our program. Here are some of the lessons we can do:

ELA

Nature Writing: Students read examples of nature writing, walk in our woods, and create their own piece.

Hub Farm Newsletter: Students learn about an aspect of the farm, then write a short piece explaining it for our newsletter.

CRR Anchor Standards W.2, W.3, W.5, SL.1

MATH

Root Ratio: Harvest crops and compare the length of the stems and roots.

Cooking with Math: Use fractions to make a recipe from our produce.

Garden Geometry: Help us plan our garden by measuring and calculating how much room we have for crops.

NC.6.G.1, NC.6.SP, 7.NS.3, 7.G.4, 8.G.9, 8.F.5, 8.NS.1

SCIENCE

Water Cycle: Follow the runoff and learn about ecosystem services.

Power of Solar: Learn about how we use solar power for energy on the farm, use simple solar powered machines like our solar oven.

Aquatic Adventure: Evaluate health of a stream with a macro-invertebrate study in our creek.

6.E.1.2, 6.L.1, 6.L.2, 7.E.1, 7.L.2, 8.E.1, 8.L.5.2



STANDARD ALIGNED LESSONS

9-12 HIGH SCHOOL & CTE

The Hub Farm was originally founded to serve Career and Technical Education (CTE) students, and we continue to prioritize CTE while also serving traditional classroom subjects. We work with teachers to match on-farm experiences and project-based learning with curricula in Social Studies, Math, ELA, and Science.

CTE:

CTE Teachers are invited to use the Hub Farm as a laboratory for students to practice and experience what they are learning in class. Some examples could include animal science demonstrations with our poultry, horticulture lessons in the garden, farm to table culinary arts, and farm related construction projects. All visits to the Hub Farm are free for CTE.

OTHER:

The Hub Farm is a great place to physically engage with concepts you are covering in class. From a creative writing assignment to citizen science, we are eager to discuss how the Hub Farm can bring your curricula to life.



PROJECT BASED LEARNING

The Hub Farm offers long term project based experiences. Students work together to study a problem, brainstorm solutions, implement their project, and evaluate their results. These engagements span over at least 3 visits to allow time for the whole process. Here are some examples:

APIARY

Horticulture students from Northern High School studied the current honey bee hive area (apiary) and designed improvements for easier access and more engaging education for visitors, including an observation deck, flower garden, benches and signage.

TRAIL SYSTEM

Students from Lakewood Montessori Middle School are studying the current forest trails at the Hub Farm. Incorporating earth science, algebra, history, geology, and writing, students are enhancing our trail system, including creating a "Story Trail" to connect us to Durham County North Regional Library.

POLLINATOR HABITAT

Students from Lakewood Montessori Middle School learned about the habitat needs of native pollinator insects, built "pollinator hotels" made of natural materials, and installed these habitats at the Hub Farm.

EXPERIENTIAL LEARNING



One of the Hub Farm's core philosophies is that engaging in meaningful work outdoors is key to developing an ethic of purposeful responsibility, empowering environmental stewardship, and instilling self-confidence.

We involve small groups of students in the farm's daily maintenance tasks and seasonal projects, and find teachable moments and joy in all we do. Tasks are chosen intentionally for each group. Past projects include preparing vegetable beds for planting, inoculating mushroom logs, and building paths through our wetlands.





FEES & CONTACT

To support our farm, our mission, and our staff, we charge small fees for site usage and class visits. Please contact us if you have a question or concern about our fees.

DPS Schools

Self-led: \$75/class

Hub Farm-led: \$125/class

Middle school teams: \$400/team

Free for all CTE classes

Please contact our Program Coordinator, Ashley Meredith, at ashley@thehubfarm.org if you have questions. Schedule your trip and learn more at:

www.thehubfarm.org