

Atchison County Outdoor Learning Campus



USD #377 Atchison County schools proposes a new classroom designed to help educate and raise environmentally responsible youth. This will be the first school of it's kind in Northeast Kansas.

Not far from the gardens, cows are mooing, lambs and goats are playing, and a pig wallows in mud. This might “sound” like a picture of an ordinary farm, but it is far from ordinary. It is an outdoor “living” classroom which is tended by five year old Kindergarteners through high school aged youth. The youth will be learning by doing.... They will be digging in the dirt, collecting eggs, cleaning out the chicken house, measuring for fences, measuring and building planter boxes, planting seeds, and pulling weeds. Some students are checking on fish, testing water samples, recycling, composting, sorting fruit, feeding farm animals, calculating the cost of feed and profits, picking produce, selling at a community farmer's market, and providing some healthy snacks for the students in our school district. They will not only be learning math, reading, and science, but it's our aim that they safely learn self-sufficiency and responsibility. Students will gain next generation - 21st century skills through hands-on learning. At times it will be rigorous, but it will always give authentic learning experiences by interaction with the soil, water, plants, and animals which encourage youth's physical, social, emotional, and cognitive development through sustainability.

As the number of farms dwindle, It is not uncommon for children in urban and rural communities to be disconnected from the basics. Kids think milk comes from the grocery store and vegetables are sprouted in a can. We must give kids opportunities to change the way they think and learn. We have to re-educate the next generation and close the gap between education and the environment. Youth of all ages need to know first-hand where there food comes from. We feel that academics must be intertwined with agriculture in a way that is hands-on so kids can experience it and learn skills from it. In 1787 Thomas Jefferson wrote to George Washington, “Agriculture is our wisest pursuit, because it will in the end contribute to real wealth, good morals, and happiness.”

According to Kansas Department of Agriculture, one in five jobs in Kansas is related to agriculture. Students who participate in the Outdoor Learning Campus will get knowledge for college and career readiness skills. This will help maximize their potential when it comes to college and work. By proposing and implementing the school farm, we are doing what is best for students and giving back to the community. Our “model” farm will be a learning farm not only for our staff and kids but for other schools and staff in Kansas who want to learn from it. Our students will be “leaders” as they give tours and teach others about the farm and stewardship of the land and encourage others to make agriculture a priority. This project will impact our school, community, county, and state.

Atchison County Outdoor Learning Campus

Mission Statement:

Our mission is to be an innovative model school designed to prepare all students to be environmentally responsible as lifelong learners in a changing society. Our goal is to provide hands on agricultural experiences that will allow our students to learn and process 21st century skills through the benefit of interaction between plants and animals.

Project Objectives:

To provide hands on learning projects that will allow our students to experience the richness and excitement of knowing about, understanding, and caring for the natural world of agriculture in an outdoor classroom setting.

To provide an equal opportunity for all students, starting at a young age, to learn about food production, importance of community and stewardship, and environmental responsibility in a multidisciplinary approach that is developmentally appropriate.

To build collaborative partnerships with other schools, businesses, senior citizens, and the community to develop a relationship that supports, encourages, and sustains the development of the Outdoor Learning Campus. This will impact our school, community, county, and Kansas.

Site Location, Features, and Site Use:

The Outdoor Learning Campus is composed of a total of 7 acres and will feature a wide variety of gardens and livestock facilities. A blueprint has been prepared to illustrate the layout of the water garden, wildlife garden, butterfly garden, raised garden beds, orchards, greenhouse, outdoor learning center, and gazebo, along with livestock facilities including a hog barn, sheep/goat barn, chicken coop, and calf shed.

Children who surround themselves with the natural environment develop ownership and responsibility and relate to nature as a source of wonder, joy, and awe; therefore, the campus will give children an opportunity to develop a sense of respect and caring for the world around them. The Outdoor Learning Campus is not a glorified enrichment program, but a model that provides the real “McCoy” of a farm for youth to gain knowledge and hands-on skills to grow fresh and local foods while obtaining a sense of community ownership and pride.

The center will allow our students to meet one of our primary goals set by the District, State, and Next Generation Science Standards which is to educate students who are able to experience the richness and excitement of knowing about and understanding the natural world.

Students will use their academic skills in real world applications to plan, plant, and care for their outdoor learning campus. Students will interact with the natural environment which will enhance student learning in all curricular areas providing a place for students to read, write, draw, and experience the richness and excitement of the world around them. Creative writing, drawing, painting, and scientific observations will be a regular occurrence. This center will be

developmentally appropriate for children to explore the environment in a natural setting and use scientific methods for discovery.

The Outdoor Learning Campus will allow us to establish collaborative partnerships with students, parents, staff, and community members. These partnerships will develop a strong sense of community, responsibility, and respect. We have an active Senior Citizen group within our community that desires to be a part of student project based learning. The following classes are currently incorporated into our Vocational Education and Career and Technical Programs: Introduction to Agriculture, Agribusiness, Agricultural Mechanics, Plants and Soil Science, Applications in Horticulture, Animal Science, Advanced Animal Science, Entrepreneurship, Business Essentials, Personal Finance, Accounting I & II and Computer Applications.

Our strong FFA program has implemented a Partners in Active Learning program in which we collaborate with elementary students to develop mentoring relationships through agriculturally related lessons that are student lead and student taught. This mentoring/learning relationship has lead to a second grade student business that manufactures and sells lip balm made of soybean oil and beeswax.

Community outreach connections will affect our community on a long term basis by creating collaborative partnerships with the community through a farmer's market and livestock exchange. Our school will be a model for other schools in Kansas and we will keep on insisting that agriculture is a great way to make a difference in the world!

Committee Members

Kayla Bodenhausen	USD #377 Agricultural Teacher
Wanda Small	USD #377 Elementary School Teacher
Julie Dillon	USD#377 Curriculum Director and Character Education Specialist
Mandi McMillan	USD #377 Elementary Principal
Deanna Scherer	USD #377 High School Principal
FFA Student Leadership Team	

Resource Personnel

Ray Ladd	Atchison County Extension Office
Dave Warner	School Farm Liaison (Chapman,KS Elementary Principal)
Ryan Vessar	Farmer/Mill Iron Buildings
Clifford Hawk	Agriculture Professor Highland College
Nancy Fasse	Farm Bureau Consultant
Atchison County Livestock Board	

Contact Information

Julie Dillon	913-833-2240 dillon.julie@usd377.org
--------------	---

Garden Proposed Budget

Water Garden **COMPLETED summer 2017 (Bubbling Rock instead of pond)**

8x11 pond (liner, rock, waterfall feature, 3 LED lights)		\$6,500.00
Wetland filtration system		\$3,000.00
(3) Bleeding Hearts	\$5.00	\$15.00
(3) Hosta	\$5.00	\$15.00
(3) Impatiens	\$5.00	\$15.00
(3) Day Lilies	\$5.00	\$15.00
(3) Other green plants	\$5.00	\$15.00
(2) Water Lilies	\$25.00	\$50.00
(2) Arrow Arum	\$8.96	\$17.92
Water Garden total		\$9,627.92

Butterfly Garden-**COMPLETED Fall 2017 (except for benches)**

(2) Benches	\$99.95	\$199.90
(5) Butterfly Bushes	\$32.84	\$164.25
(3) Blue Mist Spirea	\$32.84	\$98.55
(19) Old Fashioned Garden Phlox	\$10.00	\$190.00
(14) Perennial Live Forever	\$10.00	\$140.00
(19) Hardy Garden Mums-Daisy Type	\$5.40	\$102.60
(9) Perennial Rudbeckia Daisy	\$9.85	\$88.65
Butterfly Garden Total		\$983.95

Wildlife Garden-**COMPLETED Fall 2017 (still need cameras and binoculars)**

(1) Birdbath (concrete)		\$109.00
(2) Bird Feeding Stations	\$45.00	\$90.00
(1) 10' Washington Hawthorne		\$124.98
(5) Blue Holly	\$35.85	\$179.25
(6) Cranberry Cotoneaster	\$32.85	\$197.10
(5) Yukon Belle Pyracantha	\$32.85	\$197.10
Bird feed		\$45.00
(10) Binoculars for bird watching	\$130.00	
\$1,300.00		
(10) digital cameras for youth to use	\$69.00	\$690.00
Wildlife Garden Total		\$2,932.43

Raised garden Beds-**COMPLETED Spring 2016**

(5) 4x4 feet garden bed	\$55.95	\$279.95
Handicap Accessible		

Orchard **COMPLETED Fall 2016 (orchard includes just apple and pear trees)**

(1) Enterprise Apple Tree		\$26.00
(1) Jonafree Apple Tree		\$26.00
(1) Golden Delicious Apple Tree		\$26.00
(1) Redhaven Peach Tree		\$18.16
(1) Reliance Peach Tree		\$30.00
(1) Northstar Cherry Tree		\$31.99

(1) Surefire Cherry Tree		\$30.00
Chain Link Fencing		
Enclosure for gardens and pond 642 feet	\$17 per foot	\$11,000.00
Mulch		
For walking paths to all gardens and pond 150 yds	\$30 per yard	\$4,500.00
Storage Shed COMPLETED Fall 2017		
8x16 garden storage shed		\$2,500.00
Maintenance Cost		
200 hours (mowing, irrigation systems)	\$12 per hour	\$2,400.00
Gazebo		
10 ft round gazebo		\$2,200.00
Maintenance Equipment COMPLETED Fall 2017		
(2) Garden hose	\$29.95	\$59.90
(3) Nozzle	\$19.95	\$59.85
Outdoor learning center COMPLETED Summer 2017		
Covered 38'x48' (9 ft. tall) Outdoor Learning Center		\$2,800.00
Concrete		\$4,000.00
Electricity		\$3,000.00
Hydrant/ water		\$3,000.00
Educational Resources		
(12) Student Portable LED Microscope	\$199.00 ea.	\$2,388.00
(12) Plant and Animal Slide Kits	\$20.00 ea.	\$2,400.00
Garden total		\$54,320.15

Greenhouse Proposed Budget

Greenhouse	\$23,288.00
24'x36' greenhouse	
a. 2 Gutter end transitions	
b. 2 gutter downspouts with splash block	
c. Gutter condensate channel	
d. Exhaust fan motors	
e. 2 3'x6' doors with frames, trim, weather stripping, and hardware	
f. Roof, sidewalls, and end walls	
g. Thermal insulation	
h. Ventilation system and exhaust fans	
i. 3 shutters	
j. 2 Air circulation fan	
k. Evaporative pad cooling system	
l. 2 high efficiency unit heaters	
m. 2 set of hangers	
n. 1 iGrow integrated panel 800 series	
Sensaphone	
1 remote temperature sensor	\$450.00
Motorized interior shade	\$5,783.00
Motorized shade system	
Rolling, stationary benches and work tables	\$3,518.00
4 6'x9' stationary benches	
4 6'x9' rolling benches	
2 work tables	
Hydroponic system	\$1,594.00
Irrigation, misting and injector	\$3,219.00
Electricity	\$3,500.00
Plumbing	\$3,000.00
Concrete	\$4,000.00
Equipment	\$200.00
Hoses	
Garden pots	
Hanging baskets	
Total Greenhouse	\$48,552.00

Livestock Facilities Proposed Budget

Livestock Building

36X36 (garage door, 2 sliding doors, walk through door)	\$25,000.00
Concrete	\$6,400.00
Insulation	\$3,500.00
Plumbing	\$5,000.00
Electricity	\$5,000.00

Livestock Equipment

(15) Hog panels	\$24.99	\$374.85
(10) Cattle panels	\$21.99	\$219.90
(45) t-posts	\$ 3.89	\$175.05
(5) Galvanized Mesh Gates 4 ft	\$89.99	\$449.95
(2) 4ft hay feeder with pan	\$225.00	\$450.00
(5) Rubber Feed pans	\$6.95	\$34.75
(1) Hog feeder with door		\$73.95
(1) Brower 6 gallon headed water		\$302.95
(3) 20 Quart Flat Back Bucket	\$7.49	\$22.47
(2) Cast Iron Bowl Waterer	\$15.95	\$31.90
Estimated Feed cost		\$1,500.00
Estimated Vet cost		\$300.00

Hog barn (hogs are not allowed in city limits)

6x9 open front	\$1,100.00
----------------	------------

Sheep/Goat sheds

4x8 half front closed	\$625.00
-----------------------	----------

Calf Shelter

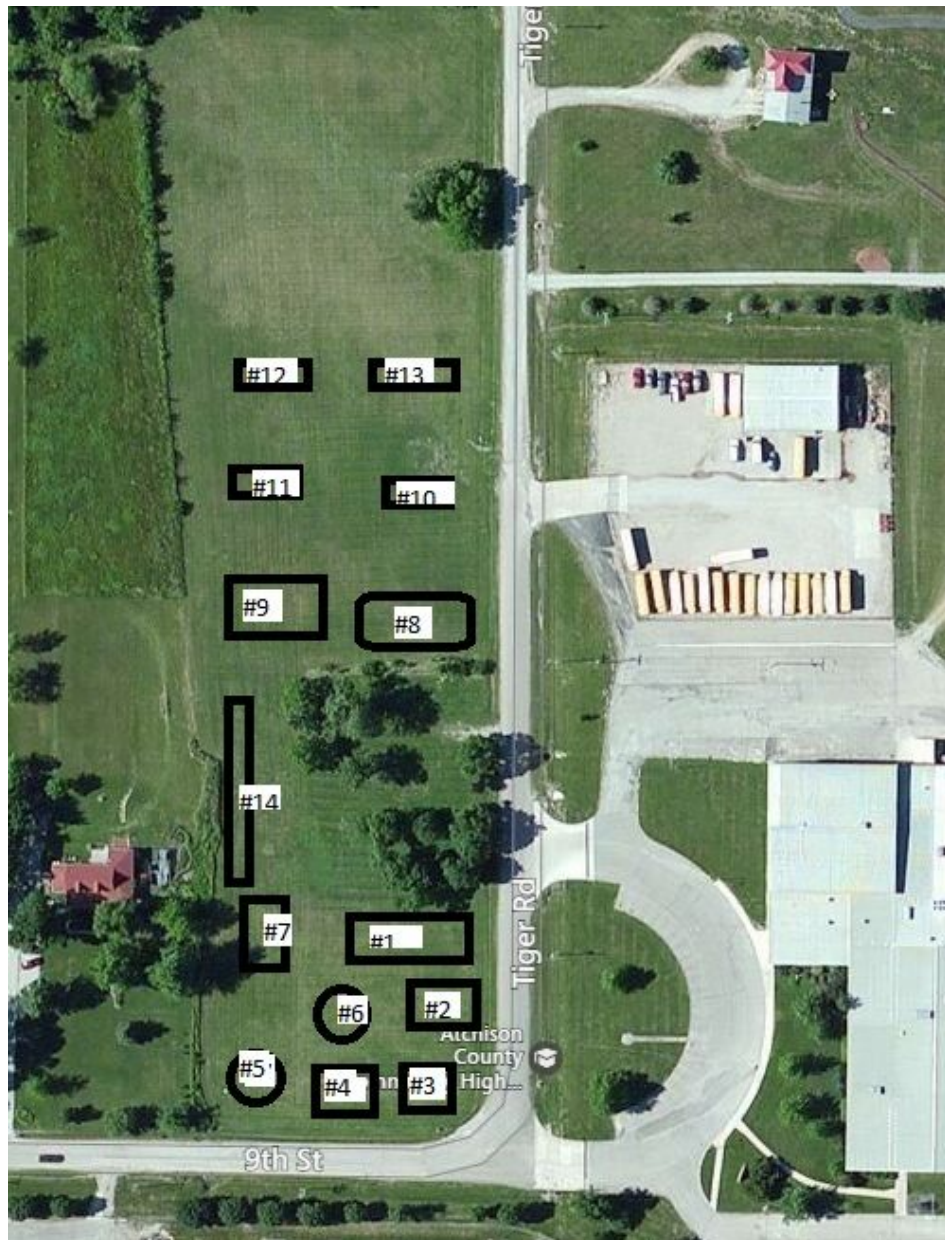
6x9 open front	\$850.00
----------------	----------

Chicken Coop

Complete enclosed chicken coop with 12ft run	\$2,995.00
Chicken water	\$36.95
Chicken feed pan	\$22.95
Egg basket	\$12.95
Egg Candler	\$49.99
Feed	\$1,200.00

Total Livestock Facilities	\$55,728.61
----------------------------	-------------

Complete Project Proposed Budget	\$158,600.76
---	---------------------



KEY

- #1-24'x36' Greenhouse
- #2-(5) 4'x4' Raised Garden Beds
- #3-20'x20' Butterfly Garden
- #4-20'x20' Wildlife Garden
- #5-8'x11' Water Garden
- #6-Gazebo 10' Round
- #7-8'x16' Garden Storage Shed
- #8-38'x48' Outdoor learning area
- #9-36'x36' Livestock Barn
- #10-6'x9' Calf Shelter
- #11-6'x9' Chicken Coop with 12ft run
- #12-6'x9' Hog Shelter
- #13-4'x8' Sheep/Goat Shelter
- #14-Fruit Tree Orchard