

C.R.E.A.T.E. Outdoor Education Center

First Baptist School, Charleston, SC

In a short few months, teachers, students, parents and administrators have initiated or completed the following projects:

PROJECTS COMPLETED & INITIATED TODATE (Dec 2019):

- Picked up and bagged trash and debris dumped from off-site sources (NOTE: more trash and debris pick-up required.)
- Posted “No Trespassing” signs around the property perimeter
- Cleared, mowed and maintaining over a 1 mile of nature trails (that can simultaneously be used by the cross-country track team)
- Erected a sign for the main trail, named after 3 seniors in the Class of 2019 who were instrumental to initiating development of the outdoor education center (BCL Trail: Beck Rogers, Chip Becude, Lincoln Murray)
- Established three (3) Carolina Spilt-Rail Fence Gardens with over 40 species of native blooming plants (shrubs, trees, vines, etc.) (<http://www.scwf.org/carolina-fence-gardens>)
- Erected (to date) 5 bluebird boxes (assembled by the students)
- Erected 2 Carolina Wren nesting boxes
- Established a bird bath in one of the fence gardens
- Mulched the fence gardens
- Prepared a ¼ acre wildlife food plot (planted with native forage and seed species utilized by area wildlife such as deer, turkey, dove, song birds, etc.)
- Planted a ¼ acre strip of winter rye, clover and turnips along the main BCL Trail to attract and support wildlife (deer, turkey, etc.)
- Established a mineral “lick” for wildlife (primarily deer) on the main BCL trail
- Set up a moth monitoring “sugar” station network ([http://mothscout.org/uploads/Moth_Recorders_Handbook-finding_moths_without_moth_traps\(1\).pdf](http://mothscout.org/uploads/Moth_Recorders_Handbook-finding_moths_without_moth_traps(1).pdf))

- Set up an insect monitoring station using UV lights (<https://www.sciencefriday.com/educational-resources/observe-moths/>)
- Set up a predator “call-up” observation station
- Begin a botanical survey of the property (Led by a school parent: Patrick Dollason, Horticulturist, Charleston Parks Conservancy)
- Established a C.R.E.A.T.E. Club for students to actively contribute their time and energies into developing and utilizing the center every two weeks during the school’s “club days”
- Establishment of an annual the “Dr. Alexander Garden Trailblazer Award” For Dedicated Service to First Baptist School’s Outdoor Education Center C.R.E.A.T.E Project (awarded to students who have demonstrated exceptional support for and hand-on contributions to CREATE). **NOTE:** We would like to establish a scholarship program to support those students who wish to pursue environmental or natural resources training/education beyond high school (technical schools, 4-year college, etc.)

A LOOK FORWARD AT FUTURE ACTIVITIES, PROJECTS, & FACILITIES

BIRD MONITORING AND MANAGEMENT

- Establishment of more Eastern Bluebird nesting boxes around the property (5 to 10 more sites)
- Implement a Bluebird nesting box monitoring program utilizing “mini-cameras”
- Establishment of a 15’ high, 8-gourd Purple Martin nesting feature (on a telescoping pole)
(http://www.birdwatching.com/tips/purplemartin_landlord.html)
- Establishment of a 30’ H Osprey nesting platform (<http://www.osprey-watch.org/learn-about-osprey/build-an-osprey-nest/>)
- Establish more song bird nesting boxes
- Erect owl roosting/nesting boxes
- Erect multiple bird feeders
- Participate in the annual Audubon Society Christmas Bird Count
(<https://www.audubon.org/conservation/science/christmas-bird-count>)
- Participate in the Audubon Society Great Backyard Bird Count
(<https://www.audubon.org/menu/great-backyard-bird-count>)
- Participate in the Cornell Lab Project FeederWatch
(<https://feederwatch.org/>)

MAMMALS MONITORING AND MANAGEMENT

- Establishment of two (2) 100-bat roosting boxes (to be mounted on a 15” telescoping pole) (<http://www.batcon.org/resources/getting-involved/bat-houses>)
- Establishment of an animal track box
(<https://wildwoodtracking.com/techniques/trackingbox/howtomake.html>)
- Set up a multi-camera wildlife monitoring program (using WiFi-connected network of “trail cameras”)
(https://www.cuddeback.com/img/cuddelink/booklet/CL_Booklet_PO_P_6.85x10.13_FINAL_small-02.jpg)

AMPHIBIANS AND REPTILE MONITORING AND MANAGEMENT

- Establishment of a “drift-fence” amphibian and reptile monitoring station (<http://www.nwflec.com/amicorp/id16.html>)
- Put out several “cover-boards” for reptile and amphibian monitoring (https://link.springer.com/chapter/10.1007/978-94-011-2868-1_31)

BOTANY/HORTICULTURE/SILVACULTURE

- Establishment of one or two ¼ acre wildflower meadows/butterfly gardens
- Build and plant several “raised” gardens for the students to learn about gardening
- Establish a small orchard of fruit trees
- Establish a grape vine
- Build a “green-house”
- Set up and operate a school farmers market (from vegetables that the students grow)
- Establish a small “experimental forest/demonstration tree farm” (<https://www.treefarmssystem.org/atfs-sfi-grow-certification-in-south-carolina>)
- Establish an active and ongoing “invasive species” control & management program

APICULTURE

- Placement of at least two (2) bee hives (adjacent to the wildflower meadow)
- Enroll interested students in a beekeeper certification course (<https://www.charlestonbees.org/certified-beekeepers-course>)
- Produce honey from CREATE beehives (students can market this)

FISHERIES/LIMNOLOGY/WATER QUALITY

- Build an experiment/observation dock in the pond
- Sample/seine/gillnet the pond to assess the fish populations in the pond
- Obtain a jon boat for fisheries and limnology studies (paddles, life jackets, etc.)
- Aquatic invertebrate sampling and collection (benthic invertebrate sampling equipment)
- Aquatic plant monitoring and management program
- Water quality monitoring program (water sampling equipment)
- Pond sediment sampling program (soil sampling equipment)
- Prepare the pond for fish stocking
- Develop and implement a fish stocking plan for the pond
- On-going pond maintenance and management program
- Annual fish sampling

METEOROLOGY

- Set up a multi-instrument weather station (with Stevenson Screen) (<http://aaybee.com.au/StevensonScreen.html>)

HYDROLOGY/PEDOLOGY

- Put down a groundwater monitoring station
- Build a soil horizons demonstration station
- Build an soil erosion demonstration station

TRAIL EXPANSION & ENHANCEMENT

- Expand the existing trail system
- Establish numerous “Discovery Stations” along the trails to provide “teaching moments”
- Development of a trail signage system to support teachers and students
- Seasonal trail maintenance program
- Wetland boardwalks and bridges over wet trail areas
- Establish an orienteering course
- Litter/trash/debris collection and disposal (on-going)

SURVEYING/ENGINEERING/MATH

- Survey the pond (area, depth, volume, etc.)
- Survey the property (teaching students surveying methods & techniques)
- Design and construct outdoor facilities (students working alongside engineers and construction specialists)

FACILITY DEVELOPMENT

- Design and construct a multi-use amphitheater (outdoor education programs, concerts, theatrical productions, etc.)
- Design and build a large multi-use gazebo/shelter
- Design and construct a wildlife observation tower
- Design and construct a pond dock
- Design and construct outdoor seating along the trail system (i.e. benches, stools, etc.)

HISTORY/ARCHAEOLOGY

- Old Home Site excavations and studies (bring in archaeology professionals/subject-matter experts)
- Civil War military land-use studies and surveys (bring in subject-matter experts)
- Colonial period land-use studies (bring in subject-matter experts)
- Establish an on-site “museum” to display artifacts found on the property

ARTS

- Annual CREATE photography contest
- Outdoor art installations (rotation)
- Concerts and performances in an outdoor setting
- Promote the writing of prose and poetry

BIBLE

- Outdoor worship opportunities
- Bible study setting
- Introduce “Reasons to Believe” educational materials that support evidence for our Creator (<https://www.reasons.org/>)

TEACHER TRAINING/WORKSHOPS

- Training, certification, and continuing education opportunities for teachers:
 - **Project Wild** (<https://www.fishwildlife.org/projectwild>)
 - **Project Aquatic Wild**
(<https://www.fishwildlife.org/projectwild/aquatic-wild>)
 - **Project Wet** (<https://www.projectwet.org/>)
 - **Project Learning Tree** (<https://www.plt.org/>)
 - **Flying Wild** (<https://www.fishwildlife.org/projectwild/flying-wild>)
 - **Leopold Education Project** (<https://www.aldoleopold.org/teach-learn/leopold-education-project/>)
 - **Master Gardener**
(<https://www.clemson.edu/extension/mg/history.html>)
 - **Master Naturalist Program**
(<https://www.clemson.edu/extension/mn/>)

MARKETING:

- Design and publish a CREATE web page on the school web site that provides an opportunity to inform and update the students, First Baptist School parents and the First Baptist Church family on the outdoor center to include:
 - Provide an outlet for posting pictures of students developing and using the center
 - Provide an outreach for students and teachers to “blog” about their adventures at the center
 - Provide a platform for disseminating information and educating the school family about the program
 - Provide a calendar for posting activities and events
 - Provide a medium to post CREATE news features
 - Provide a funding vehicle that provides parents and others the opportunity to donate to CREATE and specific projects
- Promote the outdoor education center with “CREATE” themed Christmas cards to raise funds for the project and increase awareness
- Enlist the art classes to design a CREATE T-shirt that can be sold to raise funds

C.R.E.A.T.E. “TRAVEL WEEK”

- Develop an alternative “TRAVEL WEEK” education adventure. When other students sign up for travel experiences (France, London, Paris, Italy, Spain, etc.), there are students who wish to stay local and engage in some outdoor adventures. We will call this, “Nature Break – Get a Little Relief from the Classroom” and will arrange for day-trips to area environmental and natural resources sites, such as:
 - **Congaree National Park:** <https://www.nps.gov/cong/index.htm>
 - **Francis Beidler Audubon Forest:** <https://sc.audubon.org/visit/beidler>
 - **Waddell Mariculture Center:** <https://mockelectric.com/waddell-mariculture-center>
 - **Hobcaw Barony:** <http://hobcawbarony.org/>
 - **Cape Romain National Wildlife Refuge/Bulls Bay Coastal Expeditions:** <https://www.coastalexpeditions.com/bulls-island/>
 - **Center for Birds of Prey:** <https://www.thecenterforbirdsofprey.org/visit/>
 - **SCWMRD Fort Johnson: Research Vessel trip?**
 - **Francis Marion National Forest:** <https://www.nationalforests.org/our-forests/find-a-forest/francis-marion-and-sumter-national-forests>
 - **Carolina Bay Nature Preserve:** <https://www.cityofaikensc.gov/parks-playgrounds-natural-areas/carolina-bay-nature-preserve/>
 - **Caw Caw Interpretive Center:** <https://ccprc.com/53/Caw-Caw-Interpretive-Center>

GIVING OPPORTUNITIES FOR SPECIFIC C.R.E.A.T.E. PROJECTS

PROJECTS/MATERIALS/FACILITIES:

- **Wildlife Observation Tower (poles, lumber, hardware, shingles)**
- **Pond Dock (lumber, hardware)**
- **Outdoor Amphitheater (lumber, hardware, etc.)**
- **CREATE Entrance Sign (professionally fabricated sign)**
- **Wildflower Meadows (seed, fertilizer)**
- **Bee Hives (hives, beekeeping suits)**
- **Bird & Bat houses (assembled boxes and fabricating materials)**
- **Wildlife Food Plots (seed, fertilizer)**
- **Wildlife Track Boxes (lumber, hardware)**
- **Osprey Nest Platform (telephone pole, lumber, hardware)**
- **Water Sampling Equipment (test kit, instruments, etc.)**
- **Fish Sampling Gear (seines, nets, waders)**
- **Jon Boat (pond work)**
- **Wildlife Trail Cameras (cameras, security boxes, etc.)**
- **Weather Station (equipment, instruments)**
- **Trail Signage (sign materials, posts, hardware, etc.)**
- **Aquatic Sampling (dip nets, mud grab samplers, etc.)**
- **Bird Feeders (feeders, seed, nectar, suet, etc.)**
- **Orchards (trees, fertilizer)**
- **Vineyard (grape vine stock, trellis materials, fertilizer, tools)**
- **Greenhouse (kit, framing, plastic, shelving, lights, heater)**
- **Raised Gardens (timbers, hardware, potting soil, seed, fertilizer)**
- **Fence Gardens (plants, mulch, split-rail fencing)**

ADMINISTRATION:

- **Scholarships & Awards (Dr. Alexander Garden Annual Awards, support with tuition, books, etc.)**
- **Workshops/Teacher Training (Instruction Books, Registration Fees, Travel Expenses, etc.)**
- **“Nature Break”/Spring Break Student Scholarships (admission fees, registration fees, etc.)**
- **Printing Costs (handouts, brochures, maps, etc.)**