

ENVIRONMENTAL
STUDIES CENTER

MOBILE COUNTY
PUBLIC SCHOOLS

MOBILE, AL



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Biologist

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Resource Teacher

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Resource Teacher

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Bookkeeper

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Custodian



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Spring 2018

Critter Corner



Meet Dauphin

Our diamondback terrapin came to us 4 years ago from Dauphin Island. He had a major respiratory infection that we had to treat him for. It took a while, but he finally got over the infection and is now doing fine.

The diamondback terrapin is the only turtle species in North America that lives exclusively in brackish water. They are found in our coastal salt marshes.

Terrapins are almost strictly carnivorous, feeding on crustaceans and shellfish.

They particularly like periwinkle snails. There are 7 subspecies of the terrapin that vary greatly in color and markings. They all tend to have gray bodies with various size spots on their body. They are a beautiful turtle.

Be sure to stop by and see Dauphin. He is housed with our baby alligator in our classroom.

What's Happening at the Center

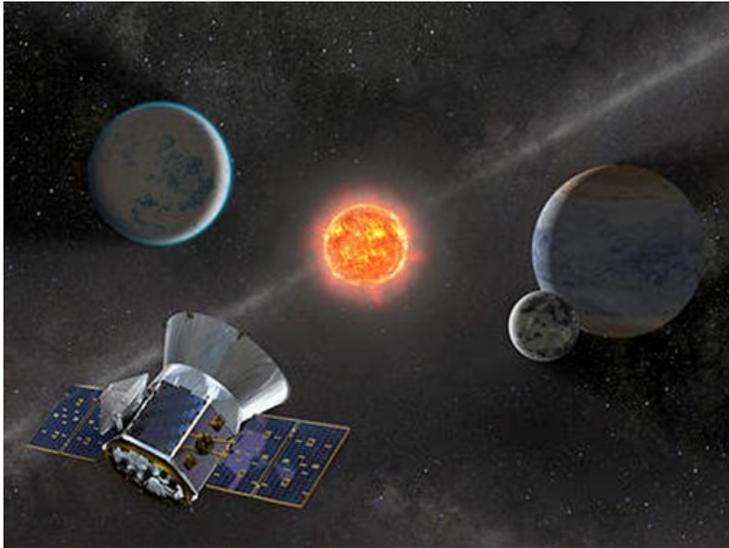
There are many reasons to come and visit the Environmental Studies Center. You may be participating in one of our educational programs, bringing an injured animal into the rehabilitation facility, or just coming for a stroll around the grounds enjoying the animals and scenery. Whatever your reason for coming, everyone should make a point to visit our pitcher plant bog.

Pitcher plant bogs are steadily declining due to habitat loss and fire suppression. A healthy bog must be burned every few years to maintain the delicate balance of wildflowers and carnivorous plants. Pitcher plant bogs require specific conditions in which to thrive. The soil must have the right pH, sunlight is critical, moisture, and other factors all must be adequate for a bog to exist. Fire is a necessary component of a healthy bog. Shrubby trees such as gallberry and titi move in and create shade, absorb more water from the soil, and change the soil chemistry. Fire is the only way to combat this natural process known as succession. The ESC, in coordination with the Forestry Department, burns our bog at least once every three years. This ensures the bog will stay healthy and be here for all to enjoy for many years to come. If you haven't been out to visit the pitcher plant bog then spring is the perfect time. It is just a short stroll down one of our several trails with an observation deck and plenty of seating. We hope to see you soon!



News from Out of this World

Passing the Torch From Kepler to TESS



Launched aboard a SpaceX Falcon 9 rocket from Cape Canaveral April 18th at 6:51 p.m. is the future of exoplanet research: TESS. TESS, which stands for Transiting Exoplanet Survey Satellite, is the replacement for the Kepler Space Telescope. The Kepler Space Telescope was launched in 2009 and has been orbiting around the Sun every 371 days since its launch. During its many orbits around the Sun, the Kepler Space Telescope has been monitoring about 150,000 stars in the Milky Way Galaxy and detecting the changes in the brightness of these stars which has led to the discovery of many planets outside of our solar system. According to the research through the Kepler telescope, it has been estimated that there is at least one planet for every star in our galaxy. There are approximately 100 billion stars in our galaxy. Since the beginning of Kepler's research, 2,650 exoplanets have been identified, which is more than 70 percent of all of the discoveries of alien worlds.



The launch of TESS begins a new era in this search for exoplanets. TESS will not orbit the Sun but will orbit the Earth in a close relationship with the Moon's orbit. TESS will orbit around the Earth twice during one lunar orbit and, instead of monitoring just one patch of the sky, TESS will be able to scan the entire sky. Scientists are hopeful and expect that

thousands of exoplanets and planetary systems that orbit closer to their stars will be detected. TESS will be able to observe brighter stars than Kepler, which will allow scientists the ability to measure mass and density of the planets as well as the atmospheres of those planets.

So...the search will continue for the twin of our planet which would lead one to think that a terrestrial planet the same size and distance from its star as the Earth could be capable of supporting life as we know it. But if not that, the information discovered will tell us more about the formation and history of our planet along with some insight on the future of our physical world.

Keep reaching for the Stars!

Annual MCPSS Science Fair Winners

The annual Mobile County Public Schools Science Fair was held on February 9, 2018 at Clark-Shaw Magnet School. The overall winners are as follows:

Lisa Bramuchi-Faye Horizon Award for Most Promising 6th Grade Project

Thomas Carmichael
Phillips Magnet School
Physical Science
"Should you take care of your Nerf bullets?"



Susann Pierce Patriot Award

Riley Martin
Phillips Magnet School
Chemistry
"Suds Up!"



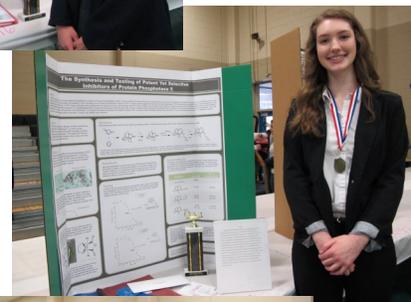
Middle School Winner

Ella Fletcher
Phillips Magnet School
Engineering
"Super Dome"



High School Winner

Madeleine Forbes
Davidson High School
Chemistry
"Synthesis and Testing of Potent Yet Selective Inhibitors"



Overall Winner

Antony Nguyen
Davidson High School
Cellular, Molecular, and Microbiology
"Effect of Electromagnetic Pulses on E. coli"



Wildlife Wish List

- | | | |
|------------------------|---------------------------|-----------------------------|
| Clip-on clamp lamp | Small frozen fish | Canned dog and cat food |
| Pine bark mulch | Pine shavings (for cages) | Dried whole corn |
| Cages | Baled hay | Frozen mixed vegetables |
| Heating pads | Scratch feed | Fresh fruits and vegetables |
| Liquid laundry soap | Bleach | Raw peanuts (in shell) |
| Liquid dishwasher soap | Wild birdseed | Nuts (in shell) |
| Wal-Mart gift cards | Newspaper | Dry dog food (small bites) |
| 60-watt light bulbs | Plastic wrap | Unsalted sunflower seeds |
| Scrub brushes | Dawn dish soap | Canned sardines in water |
| Cash | B & B Pet Stop gift cards | |



Wildlife Adoptions

For a \$25 annual donation you can help with the feeding, care, and shelter of one of the native wildlife housed here at the Environmental Studies Center. Not only can you adopt an animal for yourself but, you can give an adoption as a gift. Adoption benefits include: adoption certificate, photograph of your animal, fact sheet about the species, recognition of your adoption on the exhibit, and Environmental Studies Center e-Newsletter.

Complete the information below and mail it to the Center with your payment. Make checks payable to the Environmental Studies Center.

Animal Adoption



Name: _____

Address: _____

City: _____ State: _____

Zip Code: _____ Phone: _____

Email Address: _____

- Please choose one: Raccoon Deer Pelican Seagull Alligator
 Mallard Duck Canada Goose Black Vulture Turkey Coyote
 Red-tailed Hawk Bald Eagle Wood Duck Turkey Vulture Screech Owl
 Barred Owl Great-Horned Owl Great Blue Heron Other: _____



Partners in Education



*Dr. Louis Buckalew
& Family*

PVOC

Pleasant Valley Opportunity Club



Thoughts from the Director

This will be my last newsletter article. I will be retiring July 1st, after 39 years as a science educator in Mobile County Public Schools. Someone asked me what would be my legacy. Legacy can be many things, but for a teacher the legacy is always the students we have taught. The building, exhibits, programs, curriculum, and teams pale in comparison to the power of even one child that leaves a teacher with an idea, a curiosity, a passion, or knowledge that could make a difference to another person. I always have believed that everything matters and that one person who cares has an exponential effect on the world. So my legacy will be all the students that had contact with something I was involved in that will go out into the world and affect one other person in a positive way.

It has been my honor and my pleasure to serve this community. I will still be around. You may even see me at the Environmental Studies Center... if it's not too hot, too cold, too early, raining, or before or after a holiday.....you know, I will be retired!!!!

Desiree Bishop, Director





Environmental Studies Center 2018 Summer Programs

3 and 4 year old preschool students accompanied by caregiver

"Mommy & Me (or Daddy, Grandma, etc.)"

Three and Four year old preschool students are invited along with their adult caregiver to experience the wonders and excitement of wild animals around them. Each session includes story time, musical fun, and a craft. Reserve your sessions before the date of the program. Space is limited. The caregiver must stay with the child throughout the program. Don't forget to visit our gift shop before or after the program.

Dates and Times:

June 4 10:00 am

All About Mammals - Visit with native mammals and learn about their interesting characteristics.

June 11 10:00 am

All About Reptiles - View local turtles, snakes, and an alligator. Learn what makes these creatures so interesting.

June 18 10:00 am

All About Birds - Take a look at our featured friends that live in the Mobile area.

Cost: \$2 for each session per child

Reservation required



Grades 1-2 "Nature and Me"

Students will be guided through discovery investigations of the area's natural forest environment. The program will focus on living things and their habitats. Students will gain an appreciation for our natural resources while taking nature hikes, comparing physical features of animals, and participating in interactive games that will deepen their understanding of the forest.

Dates and Times: 2 Days June 20 – 21

8:00 a.m. – 4:30 p.m.

Cost: \$80 per student

Grades 4-6

"Aerospace"

Up, up and away? Come defy gravity with us as we explore flight by building hot air balloons, rockets, and gliders.

Dates and Times:

2 (1/2) Days June 12-13 8:00 a.m. – 12:00 p.m.

Cost: \$40 per student



Grades 6-9

"All About Water"

Enjoy an afternoon of activities at the Environmental Studies Center exploring our 18 acre Pine Lake. You will be taught the basics in water safety and kayaking, fishing with cane poles from our pier, and participating in macroinvertebrate collection and identification.

Dates and Times: 1 (1/2) Day June 4, 11, or 18

12:00 p.m. – 4:00 p.m.

Cost: \$20 per student



General Public – All Ages

"Wednesdays with Wildlife"

The following shows are open to the public and are free of charge. Popcorn and water will be sold. Don't forget to visit our gift shop before or after the show. All concession sales and gift shop sales support the animals housed at the ESC.

Dates and Times:

June 6th 11:00 am

Raptor Road Show

Marvel in the wonders of native birds of prey. Learn about their habitat and adaptations. View birds of prey up close to gain a deeper understanding of these magnificent creatures.



June 20th 11:00 am

Wildlife of Mobile Show

So many astonishing creatures live in the Mobile area. Some fly, some slither, some crawl, some walk.....but all are amazing. In this show you will see mammals, reptiles, and birds up close.

June 27th 11:00 am

Remarkable Reptiles of Mobile Show

Believed to be slimy and dangerous, reptiles are often feared. In this show, you will learn the truths about these fascinating creatures that live throughout Mobile County.

Cost: FREE – no reservation required

Grades 1-2 "Art in Nature"

Students will discover the beauty, colors, and patterns in nature and will use what they experience to create original art projects.

Date and Time:

2 Days June 27 - 28

8:00 a.m. – 4:30 p.m.

Cost: \$80 per student



Grades 2 – 6

"Wildlife Palooza"

Students will visit with native wildlife of the Mobile area. They will learn how these wonderful creatures survive in the wild and how these critters interact with each other. Also, they will develop an understanding of how each animal is beneficial to our environment and the people living in it. Activities include visiting the outdoor animal exhibits, viewing birds of prey up close, and a nature walk to look for signs of wildlife.

Date and Time: 1 (1/2) Day June 5 or 7

8:00 a.m. – 12:00 p.m.

Cost: \$20 per student



For a registration form please see the reverse of this page.

2018 ESC Summer Program Registration Form

Student's Name _____ Sex _____ School _____ Grade Level _____
 THIS FALL _____
 (School Year 18-19)

Address _____
 Street _____ City, State, Zip Code _____ email address _____

Phone # where parents can be reached during day _____
 Mother _____ Father _____ Other _____

Allergies/Special Needs _____

PLEASE CHECK APPROPRIATE SESSION BELOW *

Grades 1 & 2 Nature and Me
 2 Days \$80 per student
 June 20 - 21 8:00am-4:30pm _____

Grades 1 & 2 Art in Nature
 2 Days \$80 per student
 June 27 - 28 8:00am - 4:30pm _____

Grades 2 - 6 Wildlife Palooza
 1 (1/2) Day \$20 per student
 June 5 8:00 am - 12:00pm _____
 June 7 8:00 am - 12:00 pm _____

Grades 4 - 6 Aerospace
 2 (1/2) Days \$40 per student
 June 12 - 13 8:00 am - 12:00 pm _____

Grades 6 - 9 All About Water
 1 (1/2) Day \$20 per student
 June 4 12:00pm - 4:00pm _____
 June 11 12:00pm - 4:00pm _____
 June 18 12:00pm - 4:00pm _____

Ages 3 - 4 Mommy & Me
 1 session \$2 per child
 June 4 10:00 am _____
 June 11 10:00 am _____
 June 18 10:00 am _____

Snacks will be provided.

If students are attending a full day program, they must bring a lunch from home.

* Transportation is not provided. * PLEASE NOTE: MAKE CHECKS PAYABLE TO THE ENVIRONMENTAL STUDIES CENTER AND FORWARD WITH THIS FORM TO 6101 GIRBY ROAD, MOBILE, AL 36693. FOR ADDITIONAL INFORMATION, PLEASE CALL 221-5000.
 (Participants should wear appropriate clothing and shoes for outdoor activity. NO SANDALS or FLIP-FLOPS!)

(Please cut along dotted line and forward with payment to the Environmental Studies Center, 6101 Girby Road, Mobile, AL 36693)

The Mobile County Public School System
 Presents.....
**Summer 2018 at the
 Environmental Studies Center**
 Mobile, Alabama



Rabies Clinic



Benefiting the Environmental
Studies Center's wildlife
rehabilitation program.

Saturday, June 2

1:00 – 5:00

at

W. C. Griggs

Elementary School

6001 Three Notch Road

\$9.00 per rabies shot

\$5.00 for toe nail trimming

For more information call: 221-5000

Recent Patients



Wood Thrush



Purple Gallinule



Canada Goose



Merlin



Barn Swallow

What to do with Wild Baby Birds

There are two types of baby birds: nestlings and fledglings.

--A nestling is a baby, without feathers or with pin feathers, that has not left the nest.

--A fledgling has feathers and is learning how to fly. It does not return to the nest once it leaves it.

If a nestling is found, it should be returned to its nest. It is ok to touch the baby because birds have a bad sense of smell and the parents will not smell your scent on the baby. If the nest cannot be reached, make one out of a hanging plant basket. Poke holes in the bottom, line it with pine straw or grass, and hang it in a bush or tree near the location that the baby was found. The parents will return when they hear the baby cry.

Fledglings are learning to fly, so they do not stay in the nest. If a fledgling is found, please leave it alone. If it is on the ground, put it in a bush so that it is less vulnerable. The parents are not always with the baby because they are looking for food to feed it. Again, touching it will not harm it or cause the parents to reject it.

Baby birds should be taken in only if one of the following occurs: both parents are positively dead, the baby is injured, or the baby is in real danger. When taken in, the baby should be placed in a dark box and brought to the Environmental Studies Center. It is against the law to keep any wild bird without a permit and it is also best for the bird if it is cared for by a knowledgeable person. Raising a baby bird takes a lot of time. In fact a nestling has to be fed every 20 minutes from dusk to dawn. The best thing to feed a baby, until it can be brought to a wildlife rehabilitator, is dry dog or cat food that has been soaked in water. Never give it liquid with an eye dropper!

WHAT WE RECEIVED IN 2017

BIRDS

Common Name	Total # Rec'd	Common Name	Total # Rec'd
American Crow	2	Northern Cardinal	18
American Goldfinch	1	Northern Flicker	1
American Robin	2	Northern Gannet	1
Barn Owl	1	Northern Mocking bird	20
Barred Owl	8	Osprey	3
Black Skimmer	1	Piliated Woodpecker	1
Black Vulture	1	Prothonotary Warbler	1
Blue Grosbeak	1	Purple Martin	1
Blue Jay	18	Red-bellied Woodpecker	7
Blue Gray Gnatcatcher	1	Red-headed Woodpecker	3
Bridled Tern	1	Red-shouldered Hawk	1
Broad-winged Hawk	5	Red-tailed Hawk	6
Brown Pelican	29	Red-winged Blackbird	2
Brown Thrasher	13	Ring-billed Gull	1
Canada Goose	9	Royal Tern	4
Carolina Chickadee	1	Ruby-throated Hummingbird	4
Carolina Wren	29	Sanderling	1
Cattle Egret	1	Sharp-shinned Hawk	1
Chimney Swift	38	Sora	1
Chipping Sparrow	2	Turkey Vulture	1
Chuck-will's-widow	2	Virginia Rail	3
Common Grackle	2	White-throated Sparrow	1
Common Loon	3	White-winged Dove	4
Common Yellowthroat	1	Wood Duck	7
Cooper's Hawk	10	Wood Thrush	2
Double-crested Cormorant	3	Yellow-rumped Warbler	2
Downy Woodpecker	4	Non-Migratory Birds	27
Eastern Bluebird	6	Bird Total	417
Eastern Screech Owl	8		
Eurasian Collared Dove	1	MAMMALS	
Gray Catbird	3	Common Name	Total # Rec'd
Great Blue Heron	4	Armadillo	2
Great Horned Owl	9	Cottontail Rabbit	26
Green Heron	1	Opossum	159
Herring Gull	1	Mammal Total	187
Hooded Warbler	1		
House Finch	17	REPTILES	
Indigo Bunting	1	Common Name	Total # Rec'd
Killdeer	2	Aquatic Turtles	15
Laughing Gull	24	Box Turtle	80
Lesser Scaup	2	Gopher Tortoise	2
Mississippi Kite	7	Snakes	2
Mourning Dove	21	Reptile Total	99
Northern Bobwhite	1		
		GRAND TOTAL	703

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**MOBILE COUNTY
PUBLIC SCHOOLS**

MOBILE, AL

6101 Girby Road
Mobile, Alabama
36693

Phone: 251-221-5000
Fax: 251-221-5002

Open 8:00a.m.-4:00p.m.
Monday—Friday

Individual Admission:
Free
\$2 Donation appreciated

Group tours:
Reservations required
Contact 251.221.5000
for pricing information

Non-profit organization



Wild Adventures

The Environmental Studies Center is a natural sciences education facility designed to provide unique learning experiences. In addition, wildlife rehabilitation plays a vital role each day here at the Center. With over 500 acres of rich woodlands, the Center affords teachers, students, and the general public an opportunity to experience firsthand the natural environment. Natural resources include pine and bay forests, swamps, freshwater streams, carnivorous plant bog, and a twenty-acre lake.

Man-made resources include numerous nature trails, covered pavilions, live animal exhibits, butterfly garden, and native plant garden. Indoor facilities include an auditorium, gift shop, and classroom containing live reptile exhibits, a saltwater aquarium, and numerous preserved specimens native to Alabama.



The Environmental Studies Center houses a wildlife rehabilitation program that is dedicated to the care and potential release of injured and orphaned native wildlife. The wildlife rehabilitation program receives around 800 wild patients a year. These animals all need food, care, and shelter to survive. The program relies upon donations from people like you for its operation and success.

Environmental Studies Center
6101 Girby Road
Mobile, Alabama 36693