



# FloridaLearns STEM Scholars PAEC STEM Talent Development 2014 Summer STEM Field Site/Workplace Experience Opportunities

Site #	Location	Description	District/ Teacher Leader	Number of Students
1.	<b>Center for Viticultural Sciences and Small Fruit Research</b> Florida A and M University College of Engineering Sciences, Technology and Agriculture Dr. Stephen Leong Phone 850-599-3996	Students will be exposed to the various research activities in the lab and the field/vineyard. They will have opportunities to observe and interact with faculty and researchers in the Center and participate in some of the lab and field work. <b>Experience Dates: June 16-20 and June 23 – 25, 2014</b>	Teacher Leader: Willie Saffo  Jefferson County students receive top priority	3
2.	<b>Choctawhatchee Basin Alliance</b> Northwest Florida State College Julie Terrell, Director Choctawhatchee Basin Alliance/South Walton Center Northwest Florida State College Mailing Address: 100 College Blvd Niceville, FL 32578 Phone: 850-729-6422 <b>Physical Address:</b> 109 Greenway Trail Santa Rosa Beach, FL 32459 Phone: 850- 200-4162 Fax: 850-267-8315 <a href="mailto:terrellj@nwfsc.edu">terrellj@nwfsc.edu</a> <a href="http://www.basinalliance.org">www.basinalliance.org</a> <b>Experience Leader</b> Alison McDowell	During the first two days of this experience students will gain background knowledge about selected aspects of Walton County’s coastal ecology, specifically the role of Gulf Coast sea grass and coastal dune lakes. They will also learn how to carry out procedures that are commonly used to monitor the well-being of the coastal ecology and practice these procedures in a field setting. On day three of the experience, students will meet at the Choctawhatchee Basin Alliance (CBA) offices at the South Walton Center of Northwest Florida State College. Students will take part in four days of field activities with CBA staff and volunteers. Activities include seagrass monitoring in Choctawhatchee Bay, and water quality monitoring and invasive plan education on the coastal dune lakes. The final two days of the experience will be spent developing two video presentations that are approximately 6 minutes in length. A general description of the topics and purpose are below: <ol style="list-style-type: none"> <li>a. Sea grass in the northern Gulf of Mexico               <ol style="list-style-type: none"> <li>i. Audience is the lay public.</li> <li>ii. Purpose is to educate the lay public and answer these questions: a) Why is sea grass important? b) When is sea</li> </ol> </li> </ol>	Teacher Leaders: Charles Trotman and Brande Manning  Walton County students receive top priority	6



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	<a href="mailto:mcdowel2@nwfsc.edu">mcdowel2@nwfsc.edu</a>	<p>grass monitored and why is monitoring important? c) Why should the public be concerned?</p> <p>b. Coastal dune lakes</p> <p>i. Audience is middle school students.</p> <p>ii. Purpose is to enhance the understanding of middle school students about the ecological significance of coastal dune lakes.</p> <p><b>Experience Dates:</b>  <b>July 1, 2014 – Classroom</b>  <b>July 8-11 – Field Site</b>  <b>July 15-17 – Expert Interviews and Presentation Development</b></p>		
3.	<p><b>E. O. Wilson Biophilia Center</b>          4956 State Highway 20 east          Freeport, FL 32439-6038          Christy Scally  <b>Field Supervisor:</b>          Bob Walker, Environmental Instructor/Wildlife Biologist          Phone: 850-835-1824          FAX: 850-835-2879  <a href="mailto:bwalker@eowilsoncenter.org">bwalker@eowilsoncenter.org</a>          Emergency Contact: 850-525-7256</p>	<p>During this eight-day experience students will learn:</p> <ul style="list-style-type: none"> <li>• the natural history of the Gopher tortoise in the Longleaf pine ecosystem; and,</li> <li>• the dynamics of Longleaf pine ecosystem restoration.</li> </ul> <p>Students will also assist in:</p> <ul style="list-style-type: none"> <li>• all aspects of Gopher tortoise relocation which may include the intake process of measuring, weighing, marking, and releasing tortoises;</li> <li>• inspection of tortoise enclosures;</li> <li>• making necessary repairs to enclosures;</li> <li>• burrow camera inspection of tortoise burrows; and,</li> <li>• all related duties pertaining to the restoration of the Gopher tortoise population on Nokuse Plantation.</li> </ul> <p><b>Experience Dates: June 2, 3, 9, 10, 11, 16, 17, 18, 2014</b></p>	<p>Teacher Leader:          Brande Manning</p> <p>Walton County students receive top priority</p>	4
4.	<p><b>Florida Caverns State Park</b>          3345 Caverns Road          Marianna, FL 32446          Phone: 850-482-1228          FAX: 850-482-9114</p>	<p>This project will involve removal of algae that has formed on the roof of the park's tour cave as a result of photosynthesis from the instillation of lights in the cave. The areas of focus will be divided into three zones. The cave cleanup will proceed as follows: each area will be monitored to determine the amount of impact to each of these areas; removal of algae</p>	<p>Teacher Leader: Kathy McCrary</p> <p>Jackson County students receive top priority</p>	4



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	<p>Kelly Banta <a href="mailto:Kelly.Banta@dep.state.fl.us">Kelly.Banta@dep.state.fl.us</a></p>	<p>from the 3 zones and conclude with photo-monitoring to compare overall results. <b>Experience Dates:</b> <b>June 9-12 and June 23-26, 2014</b></p>		
	<p><b>Florida Department of Agriculture and Consumer Services – Division of Aquaculture</b> <b>Florida Department of Environmental Protection – Apalachicola Estuarine Research Reserve</b> <b>Florida Fish and Wildlife Conservation Commission</b> Joe Shields III, Coordinator Division of Aquaculture 350 Carroll Street East Point, FL 32328 Phone: 850-670-1114 ANERR 108 Island Drive East Point, FL 32328 Phone: 850-670-7711</p>	<p>This opportunity will allow students to work collaboratively with experts from three different state agencies: Florida Department of Agriculture and Consumer Services – Division of Aquaculture; Florida Department of Environmental Protection – Apalachicola Estuarine Research Reserve, and the Florida Fish and Wildlife Conservation Commission. Students will spend four days at the Division of Aquaculture Shellfish Center where they will take part in field sampling procedures and water quality assessment. They will also visit the bacteriological water quality sampling field laboratory and a cultch pile. Three days will be spent at the Apalachicola Estuarine Research Reserve.</p>	<p>Leader: Heidi Montgomery Franklin County students receive top priority</p>	4
5.	<p><b>Florida Department of Environmental Protection</b> 3900 Commonwealth Blvd., MS-30; Tallahassee, FL 32399-3000 Gregory C. Ira Director, Office of Environmental</p>	<p>The eight day field experience will engage students in a watershed survey which will include thematic mapping of the watershed boundaries, conducting water quality monitoring using the World Water Monitoring Challenge system and a variety of water quality monitoring equipment, performing service learning through the development and distribution of a watershed teaching packet for educators. The team will</p>	<p>Teacher Leaders: Suzanne Fielder Nicholas Weaver  Wakulla County students receive top priority</p>	4



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	<p>Education Phone: 850-245-2132 Fax: 850-245-2159 <a href="mailto:Greg.Ira@dep.state.fl.us">Greg.Ira@dep.state.fl.us</a> Field Site Supervisors Greg Ira, Director Jackie Zimmerman, Environmental Educator Greg: 850-254-2132 Jackie: 850-245-2145 Emergency Contact: 850-297-1858</p>	<p>conduct field activities at the following locations: Lake Lafayette, Lake Munson, the Tallahassee Wastewater Treatment Facility, Leon Sinks Geological Area, Wakulla Springs State Park, San Marco de Apalache and St. Marks National Wildlife Refuge. The team will meet with experts in the field from the Department of Environmental Protection, the City of Tallahassee, and the Northwest Florida water Management District. <b>Some of the hours should count for Bright Futures service hours.</b> <b>Experience Dates: Mondays – Wednesdays during the time period of June 30- July 16. This leaves some flexibility for rain days.</b></p>		
6.	<p><b>Florida Department of Transportation District Three</b> P. O. Box 607 1074 Highway 90 East Chipley, FL 32428 Phone: 850-638-1634 Frank M. Kreis, District Bituminous Engineer Phone: 850-330-1634 <a href="mailto:Frank.Kreis@dot.state.fl.us">Frank.Kreis@dot.state.fl.us</a> Emergency Contact: Doug Salter 850-330-1223</p>	<p>Florida Department of Transportation (District 3 Office) in Chipley, Florida will provide Field Site/Workplace experience for three teams comprised of one teacher mentor and up to three high school students from local schools. This workplace/field experience will expose teacher leaders and students to the various aspects of civil engineering performed at the District offices and other professional careers in this workplace, as well as a safety orientation and workplace professionalism expectations. Specific areas that will be visited include Materials Laboratory, Design, Environmental Management, Traffic Operations, Surveying, Work Program, Administration and other offices. <b>Experience Dates: June 9-12 and June 23-26, 2014</b></p>	<p>Teacher Leaders: Susan Saunders (6 days) Kevin Shull (2 days) Rachel Edminson Amanda Bloomer (week 1) Jackie Watts (week 2)</p> <p>Holmes, Washington, Jackson, and Calhoun students receive top priority</p>	12
7.	<p><b>Georgia-Pacific Foley Cellulose</b> Shirley Frazier Boulware One Buckeye Drive Perry, FL 32347 Phone: 850-584-1340 <a href="mailto:Shirley.boulwar@gapac.com">Shirley.boulwar@gapac.com</a></p>	<p>Day 1: Provide safety and site orientation with comprehensive tour. Day 2: Meet with engineer to learn how a project is developed, funded, and installed. Day 3: Go to a module to see a project and meet module owners. Day 4: Go to another module to see a different project and meet module owners. Day 5: Meet environmental managers and learn about Buckeye's</p>	<p>Teacher Leader: Jesika Curry</p> <p>Taylor County students receive top priority</p>	6



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		<p>environmental commitment. Days 6 and 7: Go to morning meeting and shadow process development managers or module process managers. Day 8: Meet with site leadership team to share what has been learned and how it has impacted you. Experience Date to be finalized on Friday May 2</p>		
8.	<p><b>Oglesby Plants International</b> 26664 Florida Highway 71 Altha, Florida 32421 Ray Gillis Phone: 850-762-3296 FAX: 850-762-3806 <a href="mailto:ray@oglesbytc.com">ray@oglesbytc.com</a></p>	<p>Students will receive hands-on experience in the field of plant tissue culture. Activities are to include, but not be limited to the following: tissue culture medium preparation, culture multiplication under sterile conditions, and planting microplants into "soil". Work areas will include the tissue culture laboratory and its associated greenhouses. Specifics and length of time in each area will be determined after consultation with the teacher leader and OPI staff. <b>Experience Dates: Monday July 7<sup>th</sup> to Thursday July 10<sup>th</sup> and Monday July 14<sup>th</sup> to Thursday July 17<sup>th</sup></b></p>	<p>Teacher Leader: Sara Waldorff Calhoun and Liberty students receive top priority Interested student from Mariana</p>	3
9.	<p><b>Suwannee River Water Management District</b> 9225 CR 49 Live Oak, FL 32060 Office Phone: 386-362-1001 Office Fax: 386-362-1056 Dave Dickens, Bureau of Administrative Services Manager Phone: 386-647-3121 <a href="mailto:rdd@swrmd.org">rdd@swrmd.org</a> Emergency Contact Number: 386-209-4241 Ann B. Shortelle, Ph.D., Executive Director</p>	<p>The experience will include the following: One day in the office learning the history of the Water Management Districts, tour of the district office, an introduction to GIS Mapping and Geonavigation, meet the Executive Director, safety orientation, and time with the Water Resources Division Engineers working on permits. During days two through seven, students will put their new GIS Mapping and Geonavigation skills to use by spending multiple days getting real hands-on experience in the field with district personnel inspecting storm water structures and wetland restorations, observe timber harvesting and forestry management, use scientific instrumentation to measure water quality parameters and calculate minimum flows and levels of springs, streams, and rivers, inspect agriculture best management practices on local farms, monitor groundwater wells, and participate in many other responsibilities of the District.</p>	<p>Teacher Leader: Paige Thomas  Madison County students receive top priority</p>	3



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		Day Eight will be spent in the district office working on a final presentation <b>Experience Dates: June 16 – 27<sup>th</sup></b>																																						
10.	<b>Tyndall Air Force Base</b> 139 Barnes Drive, Tyndall Air Force Base Florida Joseph D. Wander, Ph.D. Phone: 850-283-6299 .	Two teams, each consisting of a teacher leader and two students will be onsite at Tyndall Air Force Base for eight days. During this time, each team will receive a lab task, resources to tackle it and guidance/assistance as appropriate. Each group will be expected to report the results at the end, both orally and in writing. Access to personnel and facilities, equipment and supplies, and transportation on the base to and from the labs.  One team will work with Dr. Jeff Owens for a project in microwave chemistry modifying surface properties of fabrics and coatings and the other team will work with Dr. Bobby Diltz to conduct a microbiological project in energy generation. <b>Experience Dates: June 9-13 and June 16-18, 2014 (may do two four-day weeks or days may be consecutive)</b>	Teacher Leaders: Dr. Sandra Cook and Scott Lamberson Gulf County students receive top priority Susan Saunders – Washington interested student	4																																				
11.	<b>UF/IFAS North Florida Research and Education Center</b> 155 Research Road, Quincy, FL Nicholas Comerford, Ph.D., Director Phone: 850- 875-7116 Phone: (850) 875-7100 Fax: (850) 875-7188 <a href="mailto:nbc@ufl.edu">nbc@ufl.edu</a>	We will host teachers with 3 students each for an 8 day period during the summer. Students will rotate among the research areas. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Experience Dates</u></th> <th style="text-align: left;"><u>Topic</u></th> <th style="text-align: left;"><u>Faculty Member</u></th> <th style="text-align: left;"><u>Location</u></th> </tr> </thead> <tbody> <tr> <td>Monday, June 9</td> <td>Wildlife</td> <td>Dr. Holly Ober</td> <td>Quincy</td> </tr> <tr> <td>Tuesday, June 10</td> <td>Soil Science</td> <td>Dr. Cheryl Mackowiak</td> <td>Quincy</td> </tr> <tr> <td>Wednesday, June 11</td> <td>Entomology</td> <td>Dr. Russ Mizelle</td> <td>Quincy</td> </tr> <tr> <td>Thursday, June 12</td> <td>Plant Breeding</td> <td>Dr. Ann Blount</td> <td>Quincy</td> </tr> <tr> <td>Friday, June 13</td> <td>Agronomy</td> <td>Dr. David Wright</td> <td>Quincy</td> </tr> <tr> <td>Monday, June 23</td> <td>Plant Pathology</td> <td>Dr. Mathews Paret</td> <td>Quincy</td> </tr> <tr> <td>Wednesday, June 25</td> <td>Animal Science</td> <td>Dr. Nicolas DiLorenzo</td> <td>Marianna</td> </tr> <tr> <td>Thursday, June 26</td> <td>Animal Science</td> <td>Dr. Cliff Lamb</td> <td>Marianna</td> </tr> </tbody> </table>	<u>Experience Dates</u>	<u>Topic</u>	<u>Faculty Member</u>	<u>Location</u>	Monday, June 9	Wildlife	Dr. Holly Ober	Quincy	Tuesday, June 10	Soil Science	Dr. Cheryl Mackowiak	Quincy	Wednesday, June 11	Entomology	Dr. Russ Mizelle	Quincy	Thursday, June 12	Plant Breeding	Dr. Ann Blount	Quincy	Friday, June 13	Agronomy	Dr. David Wright	Quincy	Monday, June 23	Plant Pathology	Dr. Mathews Paret	Quincy	Wednesday, June 25	Animal Science	Dr. Nicolas DiLorenzo	Marianna	Thursday, June 26	Animal Science	Dr. Cliff Lamb	Marianna	Teacher Leaders: Angela Sapp responsible Georgia Hosford – 1 <sup>st</sup> week David Shuler – 2 <sup>nd</sup> week  Students from Gadsden and Liberty Counties receive top priority	9
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