

## Cohort 16 (2017-18) RFP Scope of Work/Narrative Addendum

Agency Name:

School District of Putnam County Florida

Project Number:

540-2448B-8CCC2

Program Name:

**PCSD Elementary and Middle School STEAM**

Use this form to add any parameters and information needed to satisfy the requirements included in the RFP. Add all items as bullet points.

*The following items are incorporated as part of the Scope of Work:*

### **General Goals and Objectives**

The general goals and objectives are as follows:

- **50 %** of regularly participating students will improve to a satisfactory ELA grade or above, or maintain a high grade across the program year.
- **50%** regularly participating students will improve to a satisfactory mathematics grade or above, or maintain a high grade across the program year.
- **50%** regularly participating students enrolled in a science course will improve to a satisfactory science grade or above, or maintain a high grade across the program year.
- **90%** regularly participating 3<sup>rd</sup> grade students will be promoted to the 4<sup>th</sup> grade.
- **50%** regularly participating students enrolled in Algebra I will pass the algebra EOC exam.
- 70% of participating family members will increase their career opportunities, using household supplies to reinforce STEAM skills, coding skills, and community health and safety issues as measured by pre-post rating scales developed for the program.

### **Description of Program Activities and contribution to Student Success**

**Student program activities: Academic enrichment.** Personnel will be employed to help students with homework, tutoring, and academic enrichment.

→ Literacy and English Language Arts activities will be geared towards preparing students to be successful readers for college and career. The Literacy and English Language arts activities will align to Florida standards and support the school day as well as address the different learning styles and needs of the students. Examples include Odysseyware to remediate standards not mastered during the school day,

independent reading, and interaction with ebooks, Smarty Ants, Moby Max, Read Works, iReady, and Achieve3000. Student lexiles will be used to differentiate reading content based upon student lexile levels.

→ In the area of Mathematics, platforms such as Khan Academy, Math iXL, Ten Marks, Algebra Nation, Smarty Ants, Moby Max, iReady Toolkit, and Odysseyware will help prepare students for successful mastery of math standards in alignment to coursework during the school day. Coding opportunities via platforms such as code.org will be incorporated as enrichment in the areas of math and science.

→ In the area of science, students will work on homework as well as work within platforms such as Odyssey and Achieve3000. Teachers will be available to assist students in all academic areas, meeting with students in small groups and individually as needed in order to cater instruction to the needs of the individual student.

→ In the area of academic benchmarks, select students may additionally be preparing more extensively to master standards in order to pass the FSA reading and math assessments. . Other students will work with tutors and via online programs such as Odysseyware, Khan Academy and Shmoop. Advanced students will work with tutors to prepare to take their Cambridge exams.

**Dropout Prevention and College and Career Readiness.** Each student will work in a small group with a mentor to set goals and learn about essential skills for college and career readiness. The AVID curriculum and Career Choices curriculum published by Academic Innovations will be used to provide students with a pathway to examine their lives, evaluate education and career options, and make reasoned and researched goals for their future. Mentors will talk with students about current progress towards their goals including grades, attendance, and test scores. Students will also have access to resources such as Learning Blade, an interactive online tool to introduce students to careers and tools and technology found throughout the STEM fields.

**Student program activities: Other enrichment activities.** Students will be able to choose from among several STEAM-related enrichment activities such as coding, chess, leadership in public service, manufacturing, environmental sciences, robotics, arts, aviation, Bicycle Club, and MakerSpace. Other enrichment activities will be considered in STEAM areas as interest arises.

- A Coding and Robotics Program will be supported through a partnership with the Northeast Florida STEM2 Hub and Code.org. The STEM2 Hub will train all personnel and facilitate personnel getting free-of-charge coding materials in conjunction with separate grant funding. Code training will align with algebraic thinking and 21st century workforce technology skills. The Robotics component will use resources such as those offered through Lego Education, CoderZ, LittleBits, and Ozobots.
- A Chess Program will be established in partnership with area Chess experts. The effect of chess training on scholastic achievement has been well-documented (Bart, 2014, Kazemi, et al., 2012).
- A Leadership in Public Service Program will be established in conjunction with the Putnam County Sheriff's Department to promote mentoring, physical activity, logical thinking, and a focus on STEAM and careers. Members of the Sheriff's Department PALs Program will facilitate sessions along with PCSD STEAM program staff.
- A Manufacturing Program will be established to align to Florida industry certification areas such as welding, auto mechanics, and advanced manufacturing. The program will be supported through area business and IHL involvement through partnerships such as St. Johns River State College, Seminole Electric, Georgia Pacific, and smaller businesses. The program will prepare students with skills necessary for workforce and postsecondary success. Student internships will be considered as appropriate.
- An Environmental Sciences Program will focus on environmental activities and awareness including both agricultural awareness and water management. The LEA is situated on the St. Johns County River with over 440 farms and is a prime place to incorporate a keen awareness of environmental sciences.
- An Arts Program will focus on areas such as digital arts including Graphic Arts, Web Design, Animation, and Market Messaging and traditional arts including painting, drawing, drama, and music.
- An Aviation Program will be geared towards an appreciation of aviation. Curriculum will incorporate *You can Fly* curriculum through the Aircraft Owners and Pilots Association (AOPA) and involve a partnership with pilots involved with the Palatka Municipal Airport (<https://youcanfly.aopa.org/high-school>).

→ A Bicycle Club will be modeled after the Greater Cincinnati STEM Bicycle Club (

<http://greatercincystem.org/gcsc-in-action/projects/bicycle-club>). Students will receive a dismantled bicycle and engage in a science and math lessons aligned to Common Core math and science standards involving concepts such as geometry, and physics. As the lessons unfold, students will assemble a particular bicycle part while mastering the math and science standards. Students will keep the bicycle at the end of the project.

→ A Makerspace will be established at each site as a place where students can engage in tinkering and inventing in the areas of STEAM. Students will be provided with resources within the Makerspace such as a 3D printer, laser printer, CAD program, programming platforms, electronic synthesizer for electronic composing, and arts materials. The space will serve as a place to inspire students to be creative and explore new skills.

### Overview of Services to be offered to Adult Family Members

**Adult family member program activities.** Family member activities at each center will include activities such as the following yearly activities:

1. Introduction to 21st Century Programs and Activities
2. A parent night sponsored by Careersource Northeast Florida highlighting area careers and methods to use to pursue career opportunities in the region.
3. A parent and student trip to the Museum of Science and History in Jacksonville to explore STEAM activities and provide parents with ideas to reinforce STEAM activities at home using everyday household supplies.
4. A parent and student coding night sponsored by the STEM2 Hub.
5. A parent session sponsored by the Putnam County Health Department to educate parents about health and safety issues related to high school students.
6. A parent and student session sponsored by the Putnam County Library System to involve parents in helping students tinker and create using Makerspaces to increase STEAM skills.

7. A parent and student night sponsored by the Putnam County Sheriff's Office to educate parents about setting goals for students at home to be model citizens.

**Dates, Days, and Hours of Service**

The dates of service will be 8/14/17 through 5/14/18. Non-service days will be 9/4, 10/16, 10/17, 11/22, 11/23, 12/25, 12/26, 12/27, 12/28, 1/1, 1/2, 1/3, 1/4, 1/8, 1/9, 1/15, 2/19, 3/26, 3/27, 3/28. The program is designed to run for 10 hours after school Monday through Thursday. The daily schedule is as follows:

**Miller Middle: Daily schedule.**

		Monday	Tuesday	Wednesday	Thursday
Group A	4:00-4:15	Snack / Nutrition	Snack / Nutrition	Snack / Nutrition	Snack / Nutrition
	4:15-5:15	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help
	5:15-5:30	DropOut Prev	DropOut Prev	DropOut Prev	DropOut Prev
	5:30-6:30	Enrichment	Enrichment	Enrichment	Enrichment
Group B	4:00-4:15	Snack / Nutrition	Snack / Nutrition	Snack / Nutrition	Snack / Nutrition
	4:15-5:15	Enrichment	Enrichment	Enrichment	Enrichment
	5:15-5:30	DropOut Prev	DropOut Prev	DropOut Prev	DropOut Prev
	5:30-6:30	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help

**Moseley Elementary and Interlachen Elementary: Daily schedule.**

		Monday	Tuesday	Wednesday	Thursday
Group A	2:40-2:55	Snack / Nutrition	Snack / Nutrition	Snack / Nutrition	Snack / Nutrition
	2:55-3:55	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help

	3:55-4:10	DropOut Prev	DropOut Prev	DropOut Prev	DropOut Prev
	4:10-5:10	Enrichment	Enrichment	Enrichment	Enrichment
Group B	2:40-2:55	Snack / Nutrition	Snack / Nutrition	Snack / Nutrition	Snack / Nutrition
	2:55-3:55	Enrichment	Enrichment	Enrichment	Enrichment
	3:55-4:10	DropOut Prev	DropOut Prev	DropOut Prev	DropOut Prev
	4:10-5:10	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help

### Ages and Grades of Students and Number of Students

All students will attend the target schools . Students attending Interlachen Elementary School and Moseley Elementary School will be in grades K-5. Students attending Miller Middle School will be in grades 6-8. Student ages range from 4-16. 100 students will be served at each of these three target schools.

### Processes in place to support required evaluation activities

**Independent evaluator identification and qualifications.** Program evaluation plan will be implemented by CIC Planning Group, a Third-Party Evaluator uniquely qualified to serve as the evaluator on a 21<sup>st</sup> Century project. CIC has been providing professional evaluation services to school districts for over 27 years. Since 2000, CIC has conducted evaluations on nearly \$60 million in grant-funded initiatives in states across the Midwest and Southeastern U.S. Projects were completed for the U.S. Department of Education including four prior 21<sup>st</sup> Century projects, three of which were completed in Florida.

The evaluation plan will consist of not only an analysis of data but an on-site review of actual program operations and implementation. On-going formative evaluation will be summarized into semi-annual reports using both quantitative and qualitative data. Results of the formative evaluations will be used to improve and refine the program.

**Evaluation activities.** The Evaluation Plan encompasses all required aspects of reporting under the FY17-18 Request for Proposals, including both Formative (each year of the project) and Summative (years 2 and 5, with brief reports in years 1, 3, and 4) reporting requirements. The Evaluation methods are: 1. Rapid-cycle,

providing timely, actionable feedback for continuous quality improvement; 2. Theory-driven, ensuring that course corrections are targeted and evidence-based.

**Coordination with staff, students, families and others.** Evaluation team members will conduct on-site observations but will ensure that interruptions of classroom activities are minimal and collection of documents is scheduled so that program services are not impacted. Careful coordination will be carried out with staff, students, families and others to ensure programs align with State guidelines and program goals. Data collection efforts will coordinate with the activities of Program staff and the regular day school programs.

The evaluation team will coordinate with Putnam County School District personnel including the Director of Federal Programs, District Leadership Team Members, the 21<sup>st</sup> Century Program Coordinator, and school site leaders to share information and maintain ongoing two-way communication regarding program deliverables and progress made toward goal attainment in all areas. Ongoing communication will occur both orally in-person and via electronic communication means. Additional support for evaluation activities will occur via professional development sessions initiated by the 21<sup>st</sup> Century Program Coordinator during meetings with school site personnel. The sessions will include vital information about evaluation timelines, deliverables, and progress. A continual improvement model will be used to ensure compliance with all items and support adjustments where necessary

**Partner Roles**

**Partner role.**

Partner	PCSD STEAM Support/Services
St. Johns River State College	-In-kind facility support for students to engage in work with postsecondary programs aligned to STEAM, in-kind facilitators -Hosting events to expose students to career choices
Seminole	-The Director of Plant Operations offers her support
CareerSource Northeast Florida	-Volunteers to come in to the site to train students on career opportunities -Parent nights to train parents on the process of accessing careers and opportunities in the area
Palatka Sheriff's Department	-In-kind staff to mentor and train students
North Point Youth	-In-kind staff to mentor students

Jacksonville Museum of Science and History	- MOSH is expanding its outreach to Putnam County and is excited to support the program
Girls on the Run	-Full and partial scholarships will be offered to all girls served in the county and school professionals will be trained to deliver the program
Palatka Municipal Airport Advisory Board	-Free tickets to their annual community event for elementary and middle school students
Northeast Florida Stem2 Hub	-Code.org training (in-kind trainers and free materials) -LEA collaboration with other LEAs/IHLs and business partners
Putnam County Library System	-Volunteer to come in a work with students

### Collaboration with regular school day

**Collaboration with the Regular School Day.** Planning for PCSD STEAM involved a partnership with the school principal, stakeholders at the school, and LEA curriculum specialists. School-based stakeholders worked with the grant team to design a program that would meet academic needs during the school day as well as target postsecondary and workforce needs of the students as described by the leadership at each school. A survey was sent to all school employees, and feedback was used to develop the program objectives and plan. School Improvement Plans (SIPs) for each site were reviewed and activities were aligned to the goals in each school plan including the following identified areas of SIP alignment:

- Increase opportunities for industry certification
  - PCSD STEAM will expose students to career-focused enrichment aligned to industry certification pathways.
- Increase standards mastery
  - PCSD STEAM will provide remediation and homework help in academic areas.
- Increase the number of students graduating on time
  - PCSD STEAM will provide student mentoring to improve student's abilities to have positive future aspirations and set targets to accomplish both academic and career goals.

Project-based topics will reinforce the concepts learned during the school day and will align to the instructional pacing guides for each course. The program will give preference to employing teachers who work during the school day to promote collaboration with the regular school day.

Structures for ongoing communication will take place on an ongoing basis between the schools and 21<sup>st</sup> Century Program Coordinator that include in-person meetings at each school at least bi-monthly and weekly electronic communication with each school via email. Phone calls will be ongoing between the schools and the 21<sup>st</sup> Century Program Coordinator daily during program operations. Information requested from the schools will include student grades, attendance, and other EWS indicators, daily student attendance in the program, information on how the daily lessons delivered in the program align to Florida State Standards, information on student academic and enrichment progress, student behavior information, and adult-member outreach program results. Other information shared between the parties will align to formative and summative evaluation goals included in the program narrative.

**Program Center**

**Program centers.** Interlachen Elementary School, Moseley Elementary School, and Miller Middle School all have a wide array of environments conducive to the proposed program activities. The facilities are of sufficient size to accommodate the number of proposed students. The facility complies with the safety guidelines set forth by the LEA in accordance with state and federal guidelines.

**Program Centers.**

	Student Capacity	Sq Ft	Gym	Cafeteria	Media	Sports Areas
Miller Middle	716	91,822	Y	Y	Y	Y
Moseley Elem	806	95,316	Y	Y	Y	Y
Interlachen Elem	906	125,528	Y	Y	Y	Y

The gym will be used for enrichment activities. The sports areas including a soccer field will be used for enrichment and leadership opportunities. The cafeteria will be used by students to eat snacks daily during operations. The media center will be used to support academic endeavors. The school offers plentiful, nicely-sized, and modernly updated classrooms that are well-suited to support the 21<sup>st</sup> Century STEAM academic and enrichment activities. Restrooms are also updated and regular inspected in compliance with Health Department regulations. Students enjoy the benefits of all of these spaces at the school.

## Dissemination Plan

**Dissemination Plan.** PCSD STEAM will disseminate information about the program, including the locations, to the community via a dedicated website, through Facebook and Twitter, and through a phone call system. The website will be established within one week of award and will be maintained by the Program Coordinator and linked to the LEA main website. Information will include participating schools, an overview of activities, information about transportation, and a program application. The website can be accessed at:

<http://putnamschools.org/cms/One.aspx?portalId=333201&pageId=10465285>

## Schedules

### Miller Middle 21<sup>st</sup> CCLC Daily schedule.

		Monday	Tuesday	Wednesday	Thursday
Group A	4:00-4:15	Snack / Nutrition	Snack / Nutrition	Snack / Nutrition	Snack / Nutrition
	4:15-5:15	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help
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### Moseley Elementary and Interlachen Elementary 21<sup>st</sup> CCLC Daily schedule.

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	4:10-5:10	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help	Academic Enrichment/ HW Help

**Interlachen Elementary School, Moseley Elementary School, and Miller Middle School 21<sup>st</sup> CCLC Family Engagement Schedule.**

Family member activities at each center will include activities such as the following yearly activities:

1. Introduction to 21st Century Programs and Activities
2. A parent night sponsored by Careersource Northeast Florida highlighting area careers and methods to use to pursue career opportunities in the region.
3. A parent and student trip to the Museum of Science and History in Jacksonville to explore STEAM activities and provide parents with ideas to reinforce STEAM activities at home using everyday household supplies.
4. A parent and student coding night sponsored by the STEM2 Hub.
5. A parent session sponsored by the Putnam County Health Department to educate parents about health and safety issues related to high school students.
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