

## **TRIUMPH GULF COAST, INC. PRE-APPLICATION FORM**

Triumph Gulf Coast, Inc. ("Triumph Gulf Coast") has created a pre-application process to provide initial consideration of eligibility for potential ideas of projects or programs that may seek an award of funding. Applicants are required to participate in the pre-application process. Notwithstanding the response from Triumph Gulf Coast on the pre-application form, an Applicant may still elect to submit an Application.

### **APPLICANT INFORMATION**

Name of Individual/Entity/Organization: Bay District Schools

Proposal Title: Thunderbird Tech Program

Amount of Triumph Funds Requested: **\$ 155,432.00**

Total Estimated Project Cost: **\$ 155,432.00**

Brief Description of Individual/Entity/Organization: Bay District Schools is an above average, public school district located in Panama City, FL. It has 20,424 students in grades PK, K-12. According to state test scores in 2018-2019, 58% of elementary students are at least proficient in math and 58% in English/Language Arts. The 2019-20 graduation rate was 88.5%. As the mission statement reads "Bay District Schools will deliver a high quality education in a collaborative, safe, and respectful environment. Our commitment is to inspire students in the development of character with the acquisition and use of knowledge and skills as we prepare them for life and work in a diverse, global economy." This grant was written to specifically align with Goal 2: Integrate Technology into Every Learning Environment and Strategy 2.1: Provide all stakeholders with equitable access to data, digital curriculum content, and assessments aligned with current web standards. By expanding our computer science initiative to the elementary level, Bay District Schools is preparing students now for high-skill, high-wage, high demand fields in the workforce by piloting this project as a model.

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Names of co-applicants, partners or other entities, organizations that will have a role in the proposed project or program:

Beth Patterson: Supervisor of Career and Technical Education- email: [patteeb@bay.k12.fl.us](mailto:patteeb@bay.k12.fl.us)

Keri Weatherly: Director of Elementary Instructional Services - email: [weathka@bay.k12.fl.us](mailto:weathka@bay.k12.fl.us)

Kimberly Kirkman: Principal of Tyndall Academy - email: [kirkmkl@bay.k12.fl.us](mailto:kirkmkl@bay.k12.fl.us)

**REQUIRED EXECUTIVE SUMMARY** In a maximum of two (2) pages, please describe the proposed project or program and anticipated outcomes including (i) the amount of funds being sought from Triumph Gulf Coast; (ii) the amount and identity of other sources of funds for the proposed project or

program; (iii) the location of the project or program; (iv) summary description of the proposed program, including how the program will be transformational and promote economic recovery, diversification, and enhancement of the disproportionately affected counties, and (v) a summary timeline for the proposed project or program.

## **EXECUTIVE SUMMARY**

### **Thunderbird Tech Program**

Tyndall Academy, located on Tyndall Air Force Base, has a strong foundation of patriotism, innovative programs, and a wide base of parental support. In January of 2003, Tyndall Elementary was recognized as one of the twenty top performing schools in the state by the Florida School Report's Best Practices study. More recently, in April of 2012, they were recognized for being in the top 10% of all elementary schools in the state of Florida in the 2011 ranking of Florida schools by the Florida Department of Education. Tyndall Elementary has earned an "A" grade 18 out of 20 years on the School Accountability Report. In addition, Tyndall has the honor of being a Gold Level Model School for the past 3 years. In the 2020/2021 school year, Tyndall Elementary began transitioning into Tyndall Academy adding a sixth grade. A new grade level will be added each year until they are a full PreK-8th grade configuration.

The *Thunderbird Tech Program* is a project designed to continue the tradition of providing a rigorous, standards-based curriculum to its students. Third through fifth grade elementary students will be exposed to and learn computer science skills in a fun, hands-on, and exploratory manner. The principles of engineering, unmanned systems (drones -safety and their operation), the construction of 3-D designs and printing, and the study of competitive robotics will be the foundational tenets of the *Thunderbird Tech Program*. Teams will meet during the summer months and afterschool using resources such as the Robotics Education and Competition Foundation Team Guidelines (REC), Fusion 360, Tinkercad, MakerBot Thingiverse, Codester Coding Platform, code.org, and the DJI Maverick Mini's to prepare students specifically for Competitive Robotics and the Information and Communication Technology (ICT) Cybersecurity Essentials certification in 5th grade. Bay District Schools' believe that the club's focus on computer science education; will also advance students towards a seamless transition into the middle school digital information and engineering program, at no cost to parents.

Various guest speakers in the computer science industry, Tyndall Air Force Base( MQ-9 Reaper Drone Program), Gulf Coast State College, Florida State University, and/or high school mentors will be sought as the collaborative partners and resources needed to work with our students in the upper elementary grade levels. The program will begin as an after school 'Vex Robotics Club' for 1 hour with a certified teacher/coach in the 2021-2022 school year. The summer camp will follow as a structured six week program, Monday through Thursday beginning in June of 2022 and concluding in July of 2022. Three weeks will be devoted to coding and robotics, 3-D printing, drones safety and operation, and engineering in Session A. Following, a new group of elementary students will be enrolled in Session B to participate in a repeat session of the same modules. This computer science program will continue for the next five years providing year-round instruction in Science, Technology, Engineering and Math (STEM).

**(i) Funding Being Sought from Triumph Gulf Coast-**

The total cost of the project is estimated to be \$155,432.00 over a five year period. Bay District Schools will provide the facilities for the programs, the utilities, and administrative supervision and support personnel. The program will also utilize the Federal National Lunch and Breakfast Program for feeding which will provide breakfast and lunch for students who choose to participate. There will be in-kind personnel for the grant initiative with the recruitment of community members as guest speakers and mentors and donations sought.

**(ii) Amount and Identity of Other Sources of Funds for the Proposed Project**

In-kind Personnel  
Program Administrative Team  
2 classrooms and the cafeteria  
In-kind Volunteers/Mentors

**(iii) Location of Project**

Tyndall Academy, 7800 Tyndall Parkway, Panama City, FL 32403 on the property of Tyndall Air Force Base.

**(iv) Summary Description of the Proposed Program, including how the program will be transformational and promote economic recovery, diversification, and enhancement of disproportionately affected counties, and a summary timeline for the proposed project or program.**

Third through fifth grade students at Tyndall Academy will have the opportunity to engage in an inaugural hands-on, minds-on three week STEM program to learn computer science skills during the summer. Two, three week sessions will be led by certified teachers/coaches with the support of the district CTE Department four (4) hours a day. The following teacher programs will be used as resources: 1. The REC Foundation Team Guide will provide guidance in helping to get the teams prepared for the Vex IQ robotic competition utilizing the four pillars of STEM education, but also encourage important skills such as communication, teamwork, innovation, and project-based organizational skills; 2. The Autodesk Tinkercad and Makerbot Thingiverse will use software to build 3-D objects; 3. The Codesters Program, code.org, and Khan Academy Program will allow students to use Python, a text-based programming language to code and create custom projects. Python is used every day at companies like Facebook, Pinterest, and You Tube. According to the Association for Computing Machinery, 80% of universities with top ranked Computer Science Departments use Python as the language of choice for introductory computer science courses; 4. The DJI Mavic Mini is a drone for beginners learning to fly. The DJI Mavic Mini is a strong and lightweight drone with a camera that is easy to control indoors and enjoyable for young pilots.

The instructional delivery will be in person, whole-group with opportunities for small and individual instruction which will allow the right amount of scaffolding, support, and rigor towards STEM-based literacy. Students will rotate between robotics/coding, 3-D printing, engineering, and drones each hour during the summer months. Mentors and other guest speakers will provide human capital to enhance the concepts taught, teach alongside the teacher, and introduce their career field to the captive audience.

Students will be chosen from different backgrounds and varying skill levels to take advantage of this introductory computer science program. Each session will build confidence and higher order thinking skills in elementary students as they continue to master computer science skills needed for high demand career fields in a fun and engaging manner. The project-based environment will stimulate and increase their technical understanding of how to communicate with computers. It is our desire that students will not only be consumers of technology; but also, problem solvers and creators of technology.

In order for our students to succeed in school and life, we will responsibly provide them with a cutting edge, industry-recognized lab and equip them realistically for the workplace. This, coupled with effective pedagogy and lesson design, will allow our students to have a supplemental educational resource to fill the gaps in student knowledge.

Analytical thinking, collaborative team-building skills, higher-order thinking skills, and ICT Cybersecurity certification attainment will be targeted outcomes at the conclusion of the grant. Students will complete engineering notebooks to document everything the competitive team does to serve as a historical guide of lessons learned and best practices. The student- teacher ratio will be 1:10. In expectancy, students by year 3, will compete in the Vex Competitive Robotic event sponsored by the REC Foundation. This competition will prepare students to become the next generation of innovators and problem solvers and bring about revitalization to an area that was devastated after Hurricane Michael.. Ceremonies will be held to showcase the students' learning and competitive skills to parents and other stakeholders. They will highlight how these concepts apply to our daily lives.

Funding will allow the program to continue for years to come, not only during the after-school; but also, during the summer months for varied grade levels.

### **(v) Timeline**

The project timeline will begin October 2021 as an after school computer science program. The teacher/coach will use primarily the VEX robots and their STEM labs as it aligns with educational standards. Students will hone their robotics skills once a week for two hours during the school year. The summer program will begin approximately June 6, 2022 , Monday through Thursday, until June 24, 2022 for Session A. Session B will begin July 11, 2022 and end on July 29, 2022. Teacher positions will be advertised in accordance with our guidance from our Human Resources Department and appropriate professional development will follow to build the teachers' and administrators' capacity.

The summer program will be offered during the summer months of June and July, four days a week from 8:00a.m.-12:00p.m. on the campus of Tyndall Academy located in the eastern part of Bay County, Florida on Tyndall Air Force Base. The program will be replicated for the next 5 years.

**IMPORTANT NOTICE** This pre-application process will not result in an award of funding by Triumph Gulf Coast. Rather, this process is designed to facilitate submission of ideas for potential projects or programs before the Applicant expends time and/or resources to complete a full Application. All Applicants for funding are required to complete an Application, which will be reviewed and then considered for award at the discretion of Triumph Gulf Coast Board.

### **Please Select the Proposal's Eligibility Category(s)**

Pursuant to Section 288.8017, Triumph Gulf Coast, Inc. was created to make awards from available funds to projects or programs that meet the priorities for economic recovery, diversification, and enhancement of the disproportionately affected counties. The disproportionately affected counties are: Bay County, Escambia County, Franklin County, Gulf County, Okaloosa County, Santa Rosa County, Walton County, or Wakulla County. See, Section 288.08012.

1. From the choices below, please check the box that describes the purpose of the proposed project or program (check all that apply):

- Ad valorem tax rate reduction within disproportionately affected counties; Local match requirements of s. 288.0655 for projects in the disproportionately affected counties;
- Public infrastructure projects for construction, expansion, or maintenance which are shown to enhance economic recovery, diversification, and enhancement of the disproportionately affected counties;
- Grants to local governments in the disproportionately affected counties to establish and maintain equipment and trained personnel for local action plans of response to respond to disasters, such as plans created for the Coastal Impacts Assistance Program;
- Grants to support programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties. Eligible programs include those that increase students' technology skills and knowledge; encourage industry certifications; provide rigorous, alternative pathways for students to meet high school graduation requirements; strengthen career readiness initiatives; fund high-demand programs of emphasis at the bachelor's and master's level designated by the Board of Governors; and, similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission of Education, encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties;
- Grants to support programs that provide participants in the disproportionately affected counties with transferable, sustainable workforce skills that are not confined to a single employer; and
- Grants to the tourism entity created under s. 288.1226 for the purpose of advertising and promoting tourism and Fresh From Florida, and grants to promote workforce and infrastructure, on behalf of all of the disproportionately affected counties.

### **Please Select the Priorities this Proposal's Outcomes will Achieve**

1. Please check the box if the proposed project or program will meet any of the following priorities (check all that apply):

\*\*Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases.

\*\*Provide outcome measures.

\*\*Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017.