Tekoa Academy Of Accelerated Studies

T-STEM Renewal Application

2018-2019

Contents

Background

District Affiliation

TEKOA ACADEMY OF ACCELERATED STUDIES STEM SCHOOL

DC #: 123803
Region: 05
Mailing Address (Line 1): 326 THOMAS BLVD
Mailing Address (Line 2):
City, State, Zip: PORT ARTHUR, TX 77640

School Affiliation

TEKOA ACADEMY OF ACCELERATED STUDIES

CDC #: 123-803-001
Region:
Mailing Address (Line 1): 326 THOMAS BLVD
Mailing Address (Line 2):
City, State, Zip: PORT ARTHUR, TX 77640

Academy Information

T-STEM Academy Name:
Tekoa Academy Of Accelerated Studies

What grade level range will your academy serve in the 2018-2019 school year?
6-12

Grade Level	Number of Students
6	35
7	35
8	35
9	35
10	35
11	35
12	35

Contacts

Business Partner

Affiliation: GP Industries
Job Title: Steel Fabricator
Full Name: Mr. Roosevelt Petry
Email: rpetry@gpic2000.com
Phone Number: 409-982-8343

Superintendent

Job Title: CEO
Full Name: Dr. Paula Richardson
Email: prichardson@tekoacharterschool.org
Phone Number: 409-982-5400

Applicant

Job Title: T-STEM Coordinator
Full Name: Mrs. Robbi Ndebi
Email: rndebi@tekoacharterschool.org
Phone Number: 828-423-7755

IHE Liaison

Affiliation: Lamar State College Port Arthur
Job Title: Academic Advisor
Full Name: Ms. Lawanda Brown
Email: brownl1@lamarpa.edu
Phone Number: 409-984-6185

Narratives

Model Implementation

Which T-STEM model does the district intend to implement at this time? Within these models, there are variations. For this purpose campus is defined as a CDC number not a physical location.

Stand Alone Academy - All students on the campus are enrolled in the T-STEM academy

Endorsements

Identify the current endorsements that are offered:

- Science, Technology, Engineering, and Mathematics (STEM)
- Business and Industry
- Multi-disciplinary Studies

Industry Certificates

Identify all industry certificates offered to students.

Certificate	Description
Nurse Aide Certificate	The Nursing Aide Program is an ideal entry-level learning opportunity into a career of professional nursing.

Level One Certificates

Identify all level one certificates offered to students.

Certification	Description

Level Two Certificates

Identify all level two certificates offered to students.

Certification	Description

Key Elements for Success

Provide a link to the job description, roles of design team, leadership team, and advisory board.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395432

Provide a link to your mission statement.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395440

Provide a link to the final, signed, and executed MOU.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395436

Provide a link to the academy's master schedules.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395441

Provide a link to the academy's Student IGPs with CCRS and Performance Acknowledgement Plans.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395442

Provide a link to the academy's written admission policy and enrollment application.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395443

Provide a link to the academy's written recruitment plan including a timeline of recruitment and enrollment events, and recruitment materials for distribution at feeder schools and other appropriate locations in the community

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395445

Provide a link to the academy's description of instruction practices.

https://www.tekoacharterschool.org/apps/pages/index.jsp?

uREC_ID=964484&type=d&pREC_ID=1395446

Provide a link to the academy's STEM-focused extracurricular activities.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395448

Provide a link to the academy's internship and externship opportunities.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395449

Provide a link to the academy's Senior Capstone Project description.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395451

Provide a link to the academy's Student Portfolio Plans.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395452

Provide a link to the academy's Academic Literacy Plan.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395453

Provide a link to the academy's Assessment strategy.

https://www.tekoacharterschool.org/apps/pages/index.jsp?uREC_ID=964484&type=d&pREC_ID=1395454

Free-Response

Describe how the Academy will recruit, support, and retain highly qualified teachers.

Tekoa staff traveled to the Philipines to recruit new teachers over the summer. They were selected and brought back to Texas to begin the school year. Despite Hurricane Harvey, the new teachers attended a week-long orientation including classroom management, lesson planning, goal-setting, school policies, and procedures. They were supported by teacher mentors. Professional Learning Communities were established to continue professional growth for the new staff. The district hired additional Instructional Coaches. Throughout the year there were many professional development days where teachers could participate in role-playing, integrating higher-order thinking skills and practice incorporating project-based learning.

The STEM Leadership Team attends various leadership and T-STEM conferences to obtain resources and ideas for best practices. For example, the team attended the T-STEM conference in Galveston, Tx in February where they brought back resources and ideas and shared them with the staff. After observing the teachers, administrators and veteran teachers would perform pre and post one-on-one conferences to facilitate instructional improvement. This allowed for targeted feedback and reflective growth practices. The staff at Tekoa emphasizes cooperation and creates a family-like atmosphere. Teachers are encouraged to support each other through cross-curricular projects and team teaching.

Describe the current STEM pathways available at the academy.

Students who choose the Science, Technology, Engineering, and Mathematics STEM pathways take the following courses:
All Middle School students take three years of STEM Electives:
6ht Grade-STEM Technology Applications
7th Grade-Touch System Data Entry
8th Grade-Digital & Interactive Media

High School Science Core Classes:
Biology
Chemistry
Physics
Advanced Science (Ex: Astronomy, Environmental Systems, Scientific Research and Design)

High School Mathematics Core Classes:
Algebra I
Geometry
Algebra II
Advanced Math (Ex: Pre-Calculus, AP-Pre-Calculus, Statistics)

High School Electives:
Research and Technical Writing
Concepts of Engineering and Technology
Engineering Design and Presentation I
Engineering Design and Presentation II
Engineering Design and Problem Solving

Describe how strategic alliances with industry partners and IHEs will support the Academy. The description should include details regarding the role of each IHE, business, and/or community partnership; along with parent/family partnerships and communication conventions with the Academy.

Strategic alliances have been created through the local state college, businesses, STEM-related professionals and parents to support the continued growth of our program. The advisory board will meet over the summer to give feedback on the courses we need to offer to make students more successful in college and careers in the future. They will also provide learning opportunities through community projects, job shadowing, internships, externships, guest speakers, and field trips.

Dr. Gary Stretcher from Lamar State College-Port Arthur will be part of the advisory council as well as contracted with Tekoa Academy to offer students dual-credit and certification programs of study. This collaboration will bring technical skills and college access to the underprivileged and at-risk student population. Feedback on how to actively promote higher scores for the college entrance exams as well as learning expeditions to the college campus. Students will decide on which career path to take during their Junior year in order to graduate with college credit or a certificate of completion.

Dr. Robert Ford is a former professor of chemistry in higher education and has served in politics in Louisiana and Texas. He will be a part of the Tekoa Academy Advisory Council offering his expertise to prepare students and teachers to attend and compete in STEM competitions around the state.

Mrs. Caralita Solomon from Prairie View Agricultural Department will be working with Tekoa Academy on the Advisory Council. She will provide her knowledge and create opportunities for students to explore careers in Agriculture. Mrs. Solomon will come to the school to speak with students and engage with the administration in skills to incorporate our program to promote employability in this employment field. She will also collaborate on projects in the community dealing with agriculture, including community gardens, flower beds, etc.

Mr. Roosevelt Petry is a local business owner in Port Arthur. He has a degree in engineering and specializes in steel fabrication. He will be part of the advisory board at Tekoa Academy to provide students with the tools needed to create their own success. He plans to speak to students and explain his process for reaching his goals along with mentoring and externships for the students. He can also utilize his engineering degree to assist with fabrication and welding projects.

Tekoa Academy has acquired numerous business and community partnerships including parents to enrich the school program. They will assist with volunteering opportunities, participate in career day activities, job shadowing, and internship opportunities.

Describe the Academy's work-based and contextual learning in the curriculum.

Tekoa Academy of Accelerated Studies offers several courses which include work-based and contextual learning. In our Photojournalism, Engineering Design, and Audio/Video Production classes, students are provided many work-based projects. For example, students in the Photojournalism class work as a team in assigned roles to produce a quarterly magazine. Students experience the same teamwork, collaboration, and deadlines as if they were working in the print/web industry today. Similar experiences can be found in the other classes as well.

Annually, our students attend a national college fair event in Houston, Tx. Students are provided many opportunities to explore their field of study. Recruiters are available to provide additional resources.

Science students traveled to NASA and participated in a hands-on experience in building a Martian habitat fit for human existence. The students were able to converse with field experts to verify plausible ideas. This activity showcased the students engineering design concepts, mathematical and scientific skills. After studying the interdependence among living things, students attended an expedition to Moody Gardens to reinforce the real world concepts.

Engineering students went to NASA to explore how astronauts live in space, how NASA spacecraft are designed and the preparation needed for space exploration. Students were able to relate classroom activities to many of the exhibits.

To enhance global literacy and to gain an appreciation of another culture, girls attended the musical dance play entitled "Shen Yun". This stage play depicts the Chinese culture through dance.

Teachers collaborate to provide interdisciplinary projects that bring the world of work into their classrooms.

Describe the STEM-focused extracurricular activities (field experiences, clubs, and competitions) offered to students.

Tekoa Academy will participate in TAME (Texas Alliance for Minorities in Engineering) regional competition for a chance to move on to the state level and earn scholarships in engineering careers. This consists of academic tests in math and science subjects that students are currently enrolled, as well as a design team challenge. They will also enter the T-shirt design challenge in their Engineering and Design class to win a chance to compete at the state level.

Teachers will utilize the Jason Project resources to integrate the STEM curriculum and real-world problem solving into the classroom. This includes learning expeditions, digital labs, and games. They will also participate in the STEM design challenges available each year.

Tekoa Academy will also participate in the 2019 CSTEM Challenge. Students from Pre-K through 12th Grade can compete in categories including Computer Programming, Innovation, and Robotics. Student's will also compete in the CSTEM Quiz Bowl Challenge.