



SHALLOWATER T-STEM Academy
T-STEM Renewal Application
2019-2020

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Background

District Affiliation

SHALLOWATER ISD

CD #: 152909

Region: 17

Mailing Address (Line 1): 1100 AVE K

Mailing Address (Line 2):

City, State, Zip: SHALLOWATER, TX 79363

School Affiliation

SHALLOWATER H S

CDC #: 152-909-001

Region:

Mailing Address (Line 1): 1100 AVE K

Mailing Address (Line 2):

City, State, Zip: SHALLOWATER, TX 79363

SHALLOWATER MIDDLE

CDC #: 152-909-041

Region:

Mailing Address (Line 1): 1100 AVE K

Mailing Address (Line 2):

City, State, Zip: SHALLOWATER, TX 79363

Academy Information

T-STEM Academy Name:

SHALLOWATER T-STEM Academy

Are you currently in the 2018-2019 planning year or are a 2018-2019 planning grantee?

No

What grade level range will your academy serve in the 2019-2020 school year?

6-12

Grade Level	Number of Students	School / CDC # Where Students are Enrolled
6	146	SHALLOWATER MIDDLE (152909041)
7	125	SHALLOWATER MIDDLE (152909041)
8	120	SHALLOWATER MIDDLE (152909041)
9	144	SHALLOWATER H S (152909001)
10	104	SHALLOWATER H S (152909001)
11	121	SHALLOWATER H S (152909001)
12	111	SHALLOWATER H S (152909001)

Contacts

Business Partner

Affiliation: MR DNA

Job Title: CEO, CSO Laboratory Director

Full Name: Dr. Scot Dowd

Email: scotedowd@mrdnalab.com

Phone Number: 806-789-7984

Superintendent

Job Title: Superintendent

Full Name: Dr. Kenneth Border

Email: kborder@shallowaterisd.net

Phone Number: 806-832-4531

Applicant

Job Title: Special Programs Coordinator

Full Name: Mrs. Leslie Griffis

Email: lgriffis@shallowaterisd.net

Phone Number: 806-292-0158

IHE Liaison

Affiliation: South Plains College

Job Title: President

Full Name: Dr. Robin Satterwhite

Email: rsatterwhite@southplainscollege.edu

Phone Number: 806-716-2200

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: Multiple Campuses - 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
- Public Services
- Arts and Humanities
- Multi-disciplinary Studies

Certificates

Does this academy offer Associate Degrees to students?

Yes

Industry Certificates

Identify all industry certificates offered to students.

Certificate	Description
Microsoft Office Specialist Certificate	Certified in Microsoft Programs
QuickBooks Certification	Certified in Intuit Quickbooks
Certified in Family and Consumer Sciences Series Certified in Hospitality, Nutrition, and Food Science	AAFCS
CPR Certification	Cardiopulmonary resuscitation certification provides lifesaving skills that can help you respond to breathing and cardiac emergencies.
AED Certification	Automated External Defibrillator training prepares the individual for emergency cardiovascular situations.
First Aid Certification	Allows certified individual to deliver care that someone needs while waiting for medical professionals to arrive.

Level One Certificates

Identify all level one certificates offered to students.

Certification	Description
Certified Nursing Aide Certification	Trained and certified through Texas Health and Human Services

Level Two Certificates

Identify all level two certificates offered to students.

Certification	Description
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TSIA

Does this academy administer the TSIA exam?

Yes

What ID number do students use when taking the TSIA exam?

Other: Social Security Number

Key Elements for Success

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

<http://www.shallowaterisd.net/Content/130>

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

<http://www.shallowaterisd.net/Content/130>

Provide a link to the academy's master schedules.

<http://www.shallowaterisd.net/Content/130>

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

<http://www.shallowaterisd.net/Content2/202>

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

<http://www.shallowaterisd.net/Content/130>

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

<http://www.shallowaterisd.net/Content/130>

Free-Response

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

Shallowater T-STEM Academy has implemented our Professional Development Plan based on student performance, parental needs assessment, staff needs assessment, and the short and long-term goals of our Academy. Addressed in this plan, is staff training on Project Based Learning (PBL), the use of various assessment tools/processes, enhanced technology use, and common rubrics and standards in our Professional Learning Communities (PLCs), staff retention, student retention through workshops with the Region 17 Service Center and through the West Texas Consortium to ensure that all staff have the knowledge to incorporate PBL seamlessly and across curricula. As knowledge in PBL grows, the PLC plan is ever changing with teacher teams forming common criteria to evaluate student's work, integrating STEM, college and career readiness standards and 21st century skills. SISD teachers are encouraged to further their knowledge base through externships and mentorships with industry partners. Shallowater includes fostering lasting relationships with community and industry partners as a top priority in staff trainings. Having this as the basis of our PLC allows our students more access into the working STEM world. SISD common planning teams have developed common metric evaluations to determine each teacher's effectiveness, strengths, and weaknesses so that we are ever evolving for the good of students. Teachers have determined that the comparison allows them to seek advice or observe others to enrich the classroom experience.

Describe the current STEM pathways available at the academy.

Shallowater offers the Science Technology Engineering and Math Endorsement through the Architecture and Construction Pathway. The following classes are included in this pathway:

Concepts of Engineering

Principles of Architecture

Construction Technology

Engineering Design & Problem Solving

Principles of Engineering

Engineering Design

Civil Engineering & Principles of Engineering

Vocational Elective

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.

Partnerships with MR. DNA, Texas Tech Health Science Center, X-Fab and local agriculture producers allow our students to have a range of STEM experiences and internships. We are in constant contact with these community partners and receive continuous feedback throughout the year on different programs offered at Shallowater T-STEM Academy. As Shallowater ISD gathers data, we will continue to modify our approach to best meet the needs of our students. With input from our Industry partners and IHE's we modify class instruction to help our students be prepared for the future. This includes a focus on ever improving college and career ready prep classes. We focus on implementing PBL style learning in every class with an emphasis on college and careers in a global workforce. Shallowater T-STEM strives to provide key industry, business, and community partners to support STEM Academy efforts and give our students strategic alliances that will benefit them in the future. Shallowater T-STEM Academy has partnered with Mr. DNA to give students a hands-on view of DNA synthesis that would otherwise only be available to upper graduate students. Mr. DNA allows student's monitored use of equipment to perform advanced research for their science fair projects. Texas Tech Health Science Center has partnered with Shallowater ISD to allow students to view first year medical student's classes, apply for internships, and work in the laboratory on research projects. Shallowater students also attend site visits at the Texas Tech Eye Bank and Cancer Research Center.

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

Through constant feedback from industry partners and IHE's, Shallowater T-STEM Academy strives to provide real-life and relevant experiences to prepare students for both college and the workforce. Industry and real-life examples are incorporated into all aspects of education and make the work in this academy applicable to the future experiences for our students. Approximately 75% of Shallowater T-STEM classrooms are equipped with smartboard technology. Shallowater T-STEM implements PBL learning in all classrooms and uses technology in a literate and relevant manner for 21st century skills. PBL also provides opportunities for students to express their learning through reading, writing, speaking, and presenting. Texas Tech University and Region 17 continue to assist with STEM curriculum and culturally relevant instructional materials.

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

Shallowater T-STEM students participate in FIRST Robotics, Intel Science and Engineering Fair, Rocketry Competitions, Science Bowl, Texas Alliance for Minorities in Engineering Contests, Early Dedication to Medical Education Internships, High School Aerospace Scholars programs, National Youth Leadership Forums in Medicine, as well as other leadership activities through Student Council, FFA, FCCLA, TAFE, and Skills USA competitions. Moreover, our students actively participate in summer internship work with multiple area veterinarians, the Texas Workforce Commission, John Hopkins Medical School and Texas Tech Health Science Center.