



Wayside: Sci-Tech Preparatory  
T-STEM Renewal Application  
2018-2019

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# Background

## District Affiliation

WAYSIDE SCHOOLS

DC #: 227803

Region: 13

Mailing Address (Line 1): 6405 S IH 35

Mailing Address (Line 2):

City, State, Zip: AUSTIN, TX 78744

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## School Affiliation

SCI-TECH PREPARATORY

CDC #: 227-803-001

Region:

Mailing Address (Line 1): 6405 S IH 35

Mailing Address (Line 2):

City, State, Zip: AUSTIN, TX 78744

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## Academy Information

**T-STEM Academy Name:**

Wayside: Sci-Tech Preparatory

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

9-12

Grade Level	Number of Students
9	132
10	66
11	67
12	51

# Contacts

## Business Partner

**Affiliation:** Tokyo Electron Ltd.

**Job Title:** Marketing and Communications Manager

**Full Name:** Mrs. Katy Crist

**Email:** katy.crist@us.tel.com

**Phone Number:** 512-947-8032

## Superintendent

**Job Title:** Superintendent

**Full Name:** Mr. Matthew Abbott

**Email:** mabbott@waysideschools.org

**Phone Number:** 512-953-8301

## Applicant

**Job Title:** T-STEM Coordinator

**Full Name:** Mrs. Tammy Koelling

**Email:** tammy.koelling@gmail.com

**Phone Number:** 512-762-6524

## IHE Liaison

**Affiliation:** International Baccalaureate

**Job Title:** International Baccalaureate-Diploma Programme Coordinator

**Full Name:** Mrs. Belynda Powers

**Email:** bpowers@waysideschools.org

**Phone Number:** 843-324-5411

# 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)
- Arts and Humanities
- Multi-disciplinary Studies

## Industry Certificates

Identify all industry certificates offered to students.

Certificate	Description
Adobe Certified Associate (ACA)	(ACA) credential certifies that individuals have the entry-level skills to plan, design, build and maintain effective communications using different forms of digital media.

## Level One Certificates

Identify all level one certificates offered to students.

Certification	Description
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## Level Two Certificates

Identify all level two certificates offered to students.

Certification	Description
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## Key Elements for Success

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

<http://waysideschools.org/stp/t-stem/>

**Provide a link to your mission statement.**

<http://waysideschools.org/stp/our-story/>

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

<http://waysideschools.org/stp/t-stem/>

**Provide a link to the academy's master schedules.**

<http://waysideschools.org/stp/t-stem/>

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

<http://waysideschools.org/stp/t-stem/>

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

<http://waysideschools.org/stp/t-stem/>

**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://waysideschools.org/stp/t-stem/>

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

<http://waysideschools.org/stp/t-stem/>

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

<http://waysideschools.org/stp/t-stem/>

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

<http://waysideschools.org/stp/t-stem/>

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

<http://waysideschools.org/stp/t-stem/>

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

<http://waysideschools.org/stp/t-stem/>

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

<http://waysideschools.org/stp/t-stem/>

**Provide a link to the academy's Assessment strategy.**

<http://waysideschools.org/stp/t-stem/>

## Free-Response

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

Faculty needs assessments are completed every January by the Principal. Recruitment commences once the school board approves staffing requests. We developed a staffing model with help from Rice University researchers that provides a stronger support infrastructure and more collaboration time for the teachers.

Wayside re-designed their hiring practices to incorporate a rigorous process that includes extensive phone screening, review of lesson plans, guest teaching that allows for student feedback, followed by a panel interview with the hiring team. Positions are posted on the Wayside Career page of the website, and are published into Indeed.com, TASA (Texas Association of Secondary Administrators), TIBS (Texas IB Schools), and subject-specific career websites. Stipends are provided to teachers in leadership roles or in high-need subjects such as Special education, math, and science.

First year teachers are partnered with a mentor teacher in order to support their growth and development as a teacher, as well as enculturation into Wayside. Sci-Tech Preparatory's campus Instructional Coach provides consistent observations and feedback to grow teachers. This allows all teachers the opportunity to discuss and expand on strategies in their teaching at Sci-Tech Preparatory. Teachers are identified into Tiers based on needed supports to determine the level of support from the Instructional Coach. First year teachers are automatically placed on Tier One to receive the most support initially. Our staff supervision and evaluation process has become more streamlined and focused with implementation of our Strong Start Observation protocol this year. Each teacher has a walk-through every three weeks, more frequently in that time period, if needed. A one-on-one meeting follows every walk-through to coach and plan forward. The observing team is the Principal, the Assistant Principal, the Instructional Coach, the district Program Coordinator, and the district Math Specialist. Coaching includes a review of the data from formative assessments given in each two-week teaching cycle. Teachers welcome this support and work collaboratively with resources for instructional growth.

Region 13 training is available and widely attended by staff to target areas of need and growth. State and national conferences related to subject areas are also available to the teachers, as funding allows. Professional development plans for 2018-19 focus on IB assessment practices including performance-based and criterion-related assessments, critical thinking and questioning strategies, cross-curricular STEM integration, PBL and continued growth in transformational use of technology.

Collaborative professional development is provided through 14 staff development days, early release Fridays, and five district PLC meeting days. Each week the teachers have 2-3 PLC periods to work on continued growth together in small group or partnerships by grade level or subject area.

**Describe the current STEM pathways available at the academy.**

The current STEM pathways include Algebra II, Chemistry, Physics and one of the following:

1. Computer Science Pathway – Fundamentals of Computer Science, Computer Science I, Computer Science II, Computer Science III.
2. Science Combined with Engineering Pathway- Principles of Applied Engineering, Engineering Design and Presentation I, Environmental Science.
3. Science Pathway- Chemistry, Physics, IB Biology and Biotechnology.
4. Math Pathway- Algebra II, IB Math(2 credits),

**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.**

IHE support the Academy in the following ways:

- Students have potential of earning up to 24 hours of college credit through the IB.
  - Every 5 years the school is evaluated to ensure the standards and practices of the IB Diploma Programme are maintained.
  - Teachers access to professional development includes: subscription for teams of Diploma Programme educators, online support, sharing of best practices, mentoring for educators and content for ongoing teacher development in your school's professional learning community.
  - Communication with parents is a team environment, The IB Diploma Parents attend monthly Diploma Program sessions to help parent, teacher and student work together for success.
- Tokyo Electron Limited (TEL) Industry Partner supports the Academy by:
- donating equipment for use in the Academy as it becomes available.
  - reserve space for Academy students to attend annual multi-day field trip experiences (SEMI High Tech-3 day and SEMICON WEST 5 day experience)
  - attend and support the quarterly "Advisory Council" for T-STEM.
  - supports the Academy as Industry partner for Grants such as TEX2 on an as needed basis.
  - growing student internship opportunities.
  - communication channels are open and fluid with quarterly invitations to attend the Advisory Council.

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

Work based learning occurs in field experiences such as:

-Forensics-Texas State University body farm enables students to learn about a variety of career opportunities in the field of Forensics.

-Environmental Systems-Adopt a creek program allowed students to understand the role of an environment scientist working environment as they took multiple creek samples for lab work.

-Principles of Applied Engineering-Samsung field trip provides hands on experiences with industry experts as they discuss education paths and current industry technology. 3D-Printing in the classroom taught our students how to print and build prosthetic hands. They visited the Girl Scouts to act as experts, teaching them how to build their own product for people in need.

-Scheduled 10 Teacher Externship experiences with STEM industry partners during June 2018. This experience will support teacher development in creating PBL curriculum to bring relevant real world industry into the classroom.

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

Field Experiences:

Google Tour, Google Code-In, Toyota Tour, Samsung Field trip, Capital Factory field trip, Hand-A-THon-3D Printing with Girl Scouts, SEMI High Tech-3 day learning experience, SEMICON West-5 day experience, ChickTech, Environmental Systems trips(4) to Williamson Creek in "Adopt a creek" program and caving. Forensic Science- Texas State body farm and Austin crime lab.

Clubs:

Girls Who Code, Science Club, Gaming Club.

Competitions:

Expanding next year to include F1-in schools.