



HARMONY SCIENCE ACADEMY - EULESS  
T-STEM Renewal Application  
2019-2020

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# Background

## District Affiliation

HARMONY SCIENCE ACAD (WACO)

**CD #:** 161807

**Region:** 12

**Mailing Address (Line 1):** 9321 W SAM HOUSTON PKWAY S

**Mailing Address (Line 2):**

**City, State, Zip:** HOUSTON, TX 77099

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## School Affiliation

HARMONY SCIENCE ACADEMY - EULESS

**CDC #:** 161-807-009

**Region:**

**Mailing Address (Line 1):** 701 S INDUSTRIAL BLVD STE 115

**Mailing Address (Line 2):**

**City, State, Zip:** EULESS, TX 76040

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## Academy Information

**T-STEM Academy Name:**

HARMONY SCIENCE ACADEMY - EULESS

**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	115	HARMONY SCHOOL OF INNOVATION- EULESS (161807012)
7	115	HARMONY SCIENCE ACADEMY - EULESS (161807009)
8	115	HARMONY SCIENCE ACADEMY - EULESS (161807009)
9	120	HARMONY SCIENCE ACADEMY - EULESS (161807009)
10	115	HARMONY SCIENCE ACADEMY - EULESS (161807009)
11	75	HARMONY SCIENCE ACADEMY - EULESS (161807009)
12	55	HARMONY SCIENCE ACADEMY - EULESS (161807009)

# Contacts

## Business Partner

**Affiliation:** Harmony Science Academy - Euless

**Job Title:** CIA Ambassador

**Full Name:** Ms. Miracle K

**Email:** [miracdk@ucia.gov](mailto:miracdk@ucia.gov)

**Phone Number:** 703-222-4063

## Superintendent

**Job Title:** DFW Area Superintendent

**Full Name:** Mr. Harun Karan

**Email:** [hkaran@harmonytx.org](mailto:hkaran@harmonytx.org)

**Phone Number:** 214-570-1606

## Applicant

**Job Title:** Dean of Academics

**Full Name:** Ms. Stephy Overall

**Email:** [soverall@harmonytx.org](mailto:soverall@harmonytx.org)

**Phone Number:** 817-354-3000

## IHE Liaison

**Affiliation:** Tarrant County College

**Job Title:** Northeast Campus Service Area Coordinator

**Full Name:** Ms. Anna Schubert

**Email:** [anna.schubert@tccd.edu](mailto:anna.schubert@tccd.edu)

**Phone Number:** 817-515-6962

# 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
- 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
Java SE 8 Oracle Certified Associate (OCA) certification	Java SE 8 significantly changes the way Java Programmers write code. Earning a Java SE 8 Certification gives you the tools to make the most of the new features within Java SE 8. The Java SE

## 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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## TSIA

Does this academy administer the TSIA exam?

Yes

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

Other: 006953-002

## Key Elements for Success

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

<https://hsaeuless.harmonytx.org/t-stem/>

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

<https://hsaeuless.harmonytx.org/t-stem/>

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

<https://hsaeuless.harmonytx.org/t-stem>

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

<https://goo.gl/uBxfRP>

**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://new.harmonytx.org/admissions.php>

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

<http://stem.harmonytx.org/internships>; <https://hsaeuless.harmonytx.org/t-stem>

## Free-Response

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

Harmony Public Schools is a highly recognized and award-winning public charter school that hires top quality teachers, administrators, and other professionals. Harmony strives to provide personal growth and professional success to recent graduates, alumni, experienced professionals, and seasoned experts seeking new career opportunities. We offer competitive salaries, great benefits, professional support, and opportunities for career advancement.

Harmony attributes its strong performance and success to the people who enliven the schools, especially the students and parents who possess a keen appreciation of removing barriers in education. The people of Harmony are a family and embody a global, competitive, and transformative spirit which focuses on three core principles:

- 1 A challenging math and science curriculum supported by theory
- 2 A focus on measurements for growth across the school system
- 3 A culture of constructive competition, discipline, and parental engagement.

Harmony Public Schools invest in developing teachers and leaders through high-quality programs, effective coaching, and ongoing professional development. Additionally, our system has been awarded the Teacher Incentive Fund (TIF) grant, which has provided millions of dollars towards increasing professional development, developing career pathways, and enhancing the effectiveness of our current practices. We utilize part of Charlotte Danielson's Framework for Teaching, and we are training our instructional coaches in Jim Knight's coaching model. Because we are rewarding high performing teachers, including more competitive salaries and performance bonuses, we are attracting and retaining highly qualified teachers. HPS has launched an innovative way for teachers to receive training and get rewarded for their achievements through a micro-credentialing program that includes pathways for teacher leaders, administrators, and district-level staff members. An additional way we support teachers is through campus based mentoring where new teachers are paired with an experienced teacher to receive support throughout the year. The campus participates in Professional Learning Communities among departments and grade levels as a way to support teachers and increase student achievement. At the district level, teachers participate in ongoing professional development through workshops and district-level PLC teams, in addition to receiving instructional coaching.

Our staff includes many members who hold advanced Doctoral degrees and many more with Masters degrees, many in STEM fields. We have several teachers who embarked upon teaching as a second career and come with invaluable experience in STEM fields. Additionally, teachers are encouraged to continue pursuing higher learning, and HPS offers programs that teachers can apply for that include the Harmony Employee Education Program (HEEP), where teachers can get funding for advanced degrees and certifications, and the Harmony Aspiring Leadership Academy (HALA), where staff can receive training in educational leadership.

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

HSA-Euleless has 3 STEM pathways available 2018-2019:

1. Biomedical Science-Offering the PLTW Biomedical Science courses: Principles of Biomedical Science; Human Body Systems.
2. Computer Science-Offering the PLTW Computer Science courses: Computer Science Principles; Computer Science Applications.
3. Engineering-Offering the PLTW Engineering courses: Introduction to Engineering Design; Principles of Engineering.

As the pathways grow, we will add a new course for the next two years to provide a complete pathway for our students.

Our 4th pathway is our business pathway, and it incorporates technology and work-based learning through the courses offered in the pathway:

4. Business - Principles of Business, Human Resources, Virtual Business, and finally, a Practicum in Business.

**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.**

We have our own STEM Advisory Board whose committee members meet two to three times per year and consists of Parents, Students, Faculty, and members of local STEM-related professions/industries. We are currently working towards building partnerships with industrial partners in order to provide job shadowing, internship and externship opportunities, guest speakers to our CTE classes, and field trips to the job sites (to gain perspective on industry). Many of our staff members have advanced in STEM fields and have networked with distinguished professionals, which is creating connections for our students to the industries. Our campus's community has several professionals (active or retired) who utilize their connections to bring us guest industry/professional speakers who visit campus throughout the academic year.

We communicate with parents and families on an ongoing basis through social media, the school website, and a weekly newsletter. Additionally, the counselors and club sponsors work with parents throughout the year to enhance the support network for students. Our campus has an outreach coordinator that actively builds partnerships and opens lines of communication so that we can learn from and work with others. Our school values home visits and encourages all staff to participate in order to build strong relationships with our families.

Our local community college partner, TCC, provides our Dual Credit program, giving opportunities to earn college credit while in high school. Accordingly, we offer 30+ courses to any students who meet TCC's enrollment requirements (TSI requirements; in support, we provide TSI English and TSI Math Prep lab courses to all students, built into our Master Schedule for all students who have not yet passed the TSIs). Counselors are actively working on enhancing our sequence of courses for students, starting in eighth grade, so that they can graduate with advanced degrees and certificates.

Further, we also partner with College Board in several ways: TSI, PSAT, SAT, and AP. For TSI, we are a designated TSI Testing Center, and we offer the TSI free of charge to all our students, grades 8-12. We offer School Day PSAT each October to all our students in grades 8-11: PSAT 8-9 to grades 8-9, and NMSQT PSAT to grades 10-11. We offer the School Day SAT to all of our 11th graders each year. We offer a full-year TSI Lab course for TSI preparation and SAT Lab course (both English and Mathematics) to students to prepare them for TSI and SAT level testing. We offer our students AP courses of their choosing (individualized based upon their chosen career preparation paths), with individualized AP exam preparation/support provided by AP teachers. We implemented UT Austin's On Ramps program this year as another way students can earn college credits before graduation.

Additionally, we are currently working to forge partnerships with external companies, and campus leadership is actively networking with other STEM schools in order to learn best practices and bring those to our campus, including learning from Jack Singley, with Singley Academy.

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

HSA Euleless offers work-based learning programs through programs like PLTW, and contextual learning is embedded throughout our STEM curriculum with extensive use of project-based, problem-based, and inquiry-based learning curriculum. Our project-based learning features heavily in our Math and Science

courses in all grades 7-12. All of the STEM pathway courses are heavily PBL focused, all make use of science and math equally in the projects, as well as writing skills about content. We are working to increase the number of CTE courses we offer to provide students more work-based/related courses, and we are in the process of visiting Jack Singley to help make decisions around CTE courses.

We incorporate whenever possible multiple environment contexts for a student's learning of any core subject, in the classroom, either solo or in groups, and in on-campus activities and competitions, and in off-campus activities and competitions. For example, our business pathway courses focus heavily on real-world scenarios and simulations that will give our students a clear picture of what that industry is like. Our health science pathway is completely hands on with many labs simulating what industry professionals do. Our students in the technology and engineering pathways use their skills in computer programming, robotics, work with drones, and developing major pieces such as the car the solar car our competitive team is working on. We are developing a "career talks" series for this year, which will include STEM professionals speaking with interested students and answering questions the students may have. Our goal is to inform our students of all the options out there for them and help match their interests with a STEM career. We are hoping to further this program by connecting these talks with site visits, internships, and summer programs.

Finally, our teacher evaluation system, based on Charlotte Danielson's model, has contextual learning in its core. Evaluators look for evidence that the teacher's instruction is put into practice by the students, throughout a variety of phases (discussion, planning, implementing, assessment by students, feedback, and, when appropriate, repeating this cycle to further improve the process). This entire process is student-centered, assessing and refining students' experiences with the basic scientific and engineering processes.

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

Through our pursuit of STEM-focused extracurricular trips, competitions, and other activities, our students gain greater exposure to STEM requirements and practices in the higher education and professional spaces. They gain experience that complements and enhances their on-campus academic curriculum.

The following are our STEM-related school-based clubs and student organizations:

TSA (Technology Student Association)

Robotics Club (FTC, FRC, FLL)

MathCounts (Middle School)

Solar Car Design Club

Engineering Club

Innovation Club

Math Competitions Club

UIL Teams, including Computer Science, Physics, Mathematics, and Science

TAME (Texas Alliance for Minorities in Engineering) Competition

Competitions:

Science Fair

Science Olympiad

Junior Solar Sprint Competition

Robotics Competition

Math Counts

Math League

DistCo (Digital Storytelling Competition)

ISWEEEP (international Science Fair emphasizing Engineering, Environment, and Energy)

SeaPerch Competition

UIL

Additionally, our high school students have the opportunity to visit colleges in and out of state to increase their motivation for graduating and continuing their education.

Students' research and work have been published in professional journals under the guidance of our Chemistry teacher, Dr. Shireesh Apte. Additionally, he is in the process of applying for a grant through the McCarthy Dressman foundation for making bioengineered yogurt, a project he will include our students on, which could have far reaching effects.

Field experiences:

Lockheed Martin (planned for future, factory/design facility)

TI (planned for future)

American Airlines (planned for future)

Local Hospital (planned for the future)