Application for T-STEM Designation - New/Provisional

2016-2017

Contents

Texas Education Agency
Application for T-STEM Designation
Statutory Authority: Texas Education Code §39.235

Overview of Designation

In order to operate as a Texas Education Agency (TEA)-approved Texas - Science, Technology, Engineering, and Math (T-STEM) Academy, a district must seek and receive T-STEM designation from TEA. In order to receive the T-STEM designation, a school must exhibit key traits from the T-STEM Academy Design Blueprint included in this application. The intent of this designation is to ensure that districts operating T-STEM Academies: integrate all the key characteristics of well-researched and well-designed STEM education while serving students who may not have otherwise considered the fields of science, technology, engineering, and math.

Benefits of Designation

Recognition as an Approved T-STEM Academy:
Schools designated by TEA as state-approved T-STEM Academies will receive various forms of media recognition including, but not limited to: identification on TEA's website as a state-approved T-STEM Academy and recognition in press releases.

Participation in T-STEM Convenings:
Special events hosted by TEA for T-STEM Academy administrators and principals to provide input on policies and procedures that impact T-STEM Academies.

Membership in the T-STEM Network:
Frequently opportunities are provided for principals, teachers, and students in designated T-STEM Academies through the T-STEM network to share best practices through conferences and technical assistance sessions. Membership in the T-STEM Network allows T-STEM Academies to access online exemplars, professional development, and webinars.

Access to Professional Development and Technical Assistance:
Designated T-STEM academies will have access to high-quality technical assistance which includes advice and information from a Leadership Coach who has successfully facilitated the design and implementation of the majority of T-STEM Academies operating in Texas.

Strength of T-STEM Model:

- Through the designation process, TEA will recognize those T-STEM Academies that effectively incorporate T-STEM Design Blueprint elements. The designation process will enable districts and their partners to engage in the research and planning necessary to ensure that their T-STEM Academies are set up in the most effective way possible.
- The T-STEM Blueprint provides a framework for T-STEM Academies to access college and career opportunities that support post secondary success.

Questions about Completing the Application

Who can fill out a T-STEM Academy designation application?

Any district or charter school campus may apply to be designated as a T-STEM Academy. Potential applicants are encouraged to carefully review the T-STEM Design Blueprint to determine readiness for implementation of the model.

Will have to fill out the same application each year?

No. New designation applicants and those T-STEM Academies that are provisionally designated will complete the comprehensive form. T-STEM Academies that are fully designated must complete the abbreviated T-STEM designation application yearly. The abbreviated renewal application will require a designated T-STEM Academy to provide updates regarding changes in the design and operation of the Academy. However, the primary focus of the annual renewal will be to gather evidence on the Academy's progress along the T-STEM Academy Design Blueprint continuum.

Will this application be required for T-STEM Academy grantees in the future?

Yes. In future funding cycles, completion of this application will be a program requirement for T-STEM Academy grant recipients.

Who can I contact for help filling out this application?

- **New applicants** may contact the T-STEM Program Manager at tstem@tea.state.tx.us.
- **2016-2017 designated T-STEM Academies** may contact their current T-STEM coach.

Application Information

General Information:

- A district or charter must submit a separate application with the required attachments on behalf of each proposed T-STEM Academy.
- The application must be submitted via the online system by **5:00pm, March 4th, 2016**
- A campus must be designated prior to the beginning of the school year in order to operate as a T-STEM Academy for that year. T-STEM Academy approval is valid for a maximum of one year. T-STEM Academy designated must be applied for each year via the TEA T-STEM designation process.

Timeline & Process:

- March 4th, 2016: Applications are due to TEA in order to open a campus as a designated T-STEM Academy during the 2016-2017 school year.
- June 2016: Districts submitting applications by March 4th, 2016 will be notified of the selection or non-selection of the campus as a designated T-STEM Academy on or about June 2016. Applications submitted prior to the March 4th, 2016 deadline may be approved prior to June 2016.
- The district will receive a notification letter of selection or non-selection for each campus it proposes to operate as a T-STEM Academy.

Required Attachments:

- **Official signature:** Official signature of a district or charter official authorized by the local board to bind the applicant organization in a legally binding contractual agreement.

Required Supporting Documents:

- The Academy must have current versions of the following documents on file.
- Each applicant is required to provide an assurance that each of the supporting documents is current for the 2016-2017 school year, signed by all parties, and provides detailed information regarding the specific assurance.
  - **Dual Credit MOU**
  - **Professional Development Plan**
  - **Business/Industry Agreement**
  - **2016-2017 Master Schedule**

Questions:

T-STEM Program Manager
tstem@tea.state.tx.us

Required T-STEM Academy Design Program Elements

The following design elements are the minimum requried components that must be demonstrated through this application in order to be designated as a T-STEM Academy:

- The T-STEM Academy must serve grades 9 through 12 and may serve grades 6, 7, and 8.
- A campus must be designated prior to the beginning of the school year in order to operate as a T-STEM Academy for that year. T-STEM Academy approval is valid for a maximum of one year. T-STEM Academy designated must be applied for each year via the TEA T-STEM designation process.

I. Mission Driven Leadership:

- The Academy's mission statement and planned advisory board must reflect the mission and vision of the T STEM Initiative.
- The Academy must use program review and formative evaluation to achieve its mission and goals.
- The Academy must promote leadership development and collaboration within the Academy and T-STEM Network.
- For Academies that include 6th, 7th, and 8th grades, leadership teams from the middle school and high school must collaborate on a regular basis.

II. Academy Culture and Design:

- The T-STEM culture must foster positive student identities through meaningful adult and peer relationships.
- All students graduating from the Academy must be prepared for postsecondary coursework and careers in the STEM fields through the integration of the Governor's economic workforce clusters and AchieveTexas STEM cluster into the curriculum.
- The Academy must support all students to graduate high school with four years of math, four years of science, four years of STEM electives, an Endorsement (with a primary focus on STEM endorsements), and a Performance Acknowledgement for a Distinguished Level of Achievement.

III. Student Access, Success,and Persistence:

- The Academy must have a clear plan for student support and success to achieve persistence rates above 70%.
- The Academy must instill the expectation that students expand their participation and leadership in STEM activities outside the classroom and provide the opportunity to do so.

IV. Teacher Selection,Development, and Retention:

- The Academy faculty must possess extensive subject knowledge and integrate project based learning (PBL) and STEM pedagogy into the classroom.
- The Academy must adopt and implement a plan for sustained professional development.

Required T-STEM Academy Design Program Elements cont.

V. Curriculum.Instruction.and Assessment:

- The Academy must align curriculum, instruction, and assessment to provide students with rigorous STEM focused instruction.
- The Academy must deliver Innovative STEM programs that are well-defined, embed critical thinking and problem solving, foster innovation and invention, and are aligned to state and/or national standards, and industry expectations.
- The Academy must integrate science, technology, engineering, and mathematics throughout the curriculum.
- The Academy must continually monitor student progress through assessments and data collection.
- The Academy must promote STEM literacy and prepare students with 21st Century skills.
- The Academy must support three years of STEM electives at middle school and four years of STEM electives at high school.

VI .Strategic Alliances:

- The Academy must promote family involvement in student success.
- The Academy must integrate business partnerships into the curriculum and student learning experience.
- The Academy must partner with IHEs and college/career-preparation entities to ensure that students graduate with college credits and prepared for postsecondary success.

VII. Sustainability and Advancement:

- The Academy must have a plan for continuous improvement and growth.
- The Academy must adopt and implement a plan for sustained professional development.

Scoring of the Application

- Each applicant will be reviewed by T-STEM subject-matter experts from across the state.
- New applicants will be reviewed based on the proposed plan and a follow up with the applicant, if necessary.
- Each applicant will receive a notification letter from TEA indicating which designation category it has been assigned: Designated, Provisionally Designated, or Denied.
- The T-STEM Academy Design Blueprint has been consolidated in the application to highlight priorities for the planning period of designation. Applicants should focus on the benchmarks presented in answering the questions.

PART 1: CONTACTS

1.1 T-STEM Academy

T-STEM Academy Name	Weslaco 21st Century T-STEM Academy
County District Campus Number	108913001
Mailing Address - Line 1	1005 West Pike
Mailing Address - Line 2	
Mailing City	Weslaco
Mailing Zip Code	78596

1.2 School District

School District name	Weslaco ISD
Mailing Address - Line 1	319 S. 4th Street
Mailing Address - Line 2	
Mailing City	Weslaco
Mailing Zip Code	78596

1.3 Education Service Center Region

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1.4 Person Completing this Application

First Name	Sandra
Initial	
Last Name	Cerda
Title	Administrator
Phone	(956) 969-6700
Email	scerda@wisd.us

1.5 Academy Principal/Director

First Name	Yvett
Initial	
Last Name	Morales
Title	Principal
Phone	(956) 969-6700
Email	ymorales@wisd.us

1.6 Superintendent

First Name	Dr. Ruben
Initial	
Last Name	Alejandro
Phone	(956) 969-6503
Email	superintendent@wisd.us

1.7 T-STEM Academy Partner Information

IHE Partner	South Texas College
STEM Business Community Industry Partner	Sigler, Winston, Greenwood and Associates SWG Engineering, LLC and Dr. Raul Marquez Orthopedic Institute

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1.8 Authorized School District or Charter Official

First Name	Dr. Ruben
Initial	
Last Name	Alejandro
Title	Superintendent
Phone	(956) 969-6500
Email	superintendent@wisd.us
Signature	(Attached)

PART 2: BACKGROUND

2.0 Is your campus currently designated as an Early College High School (ECHS) through the TEA ECHS designation process? Yes

2.1 First year of Academy Operation 2015

2.2 Years in Operation 1

2.3 Academy Model:
What is the design of the T-STEM Academy requesting designation? School Within a School - A subset of students enrolled in grades 9-12 are enrolled in the T-STEM Academy

2.4 Target Population

Grades of students to be served	6th	7th	8th	9th	10th	11th	12th	Total Enrollment
2016-2017 projected enrollment	0	0	0	125	90	0	0	215
2015-2016 enrollment (if designated in the 2015-2016 school year)	0	0	0	90	0	0	0	90

PART 3: BENCHMARKS

T-STEM Blueprint Instructions

The T-STEM Academy Design Blueprint consists of seven benchmarks that drive the success of an Academy. Each benchmark highlights program requirements and offers a rubric score of developing, implementing, mature, or role model. T-STEM Academies use this tool to measure growth and progress along the continuum.

All seven benchmarks are included in the application. However, applicants may notice the program requirements are not numbered sequentially. This is because not all program requirements are included in the Designation Application. Applicants are not expected to meet or even consider all program requirements at this stage in the process. Instead, those program requirements that form the building blocks of a successful designated Academy are included in the Designation Application. Focused consideration of those particular program requirements will mean a successful applicant will have a strong foundation as a designated T-STEM Academy. The technical assistance that comes as a result of designation will allow the designated Academy to implement the Blueprint Benchmarks' full program requirements over time.

Benchmarks 1-4, 6 & 7
Applicants should first review the program requirements for each benchmark presented in the body of the application. The questions that follow pertain to those specific requirements (i.e. Benchmark 1 questions pertain to Benchmark 1 program requirements). Applicant responses should reflect a close consideration of the highlighted rubric areas in the context of what the campus has in place currently and could feasibly implement during the first designated year. Applications will be scored on the response's evident understanding of the continuum of growth along the rubric, evidence of existing programs, and feasible plan to move forward for each requirement.

Benchmark 5: Curriculum, Instruction, and Assessment
Applicants should review the program requirements presented in each section and rate the campus's existing system in the rubric's check boxes. Applicants are then asked to justify the ratings with evidence, reflection, and a plan to move forward, bearing in mind that with designation comes the tools and assistance necessary to progress along the continuum. Successful applicants will reflect an understanding of Benchmark 5 and are not necessarily expected to have all elements in place before designation.

Benchmark 1: Mission-Driven Leadership

Program Requirements

1.2.C.	Develops and demonstrates support from an advisory board (AB) consisting of representatives from the Academy, school board, district, community, higher education, and STEM businesses to support and guide facility requirements, resource acquisition, curriculum development, internship, externships, and student/community outreach to ensure a successful 6-20 STEM academic and career pipeline.
1.3.A.	Integrates and assesses the level of mission-driven and data-driven decision making evident in the daily work of the Academy.
1.4.A.	For 6-12 campuses, middle school and high school leadership teams regularly collaborate to advance 6-12 alignment and student retention in STEM.

Key Elements for Success

- Job descriptions and roles for design team, leadership team, and advisory board
- Mission is posted and can be articulated by teachers, staff, students, key stakeholders, etc.
- MOUs with T-STEM Centers

	Developing	Implementing	Mature	Role Model
1.2.C.	Advisory Board (AB) established.	AB positions and subcommittees are identified.	AB develops innovative and creative approaches to support Academy mission and vision.	AB addresses major shifts in STEM, educational standards, industry expectations, and analyzes SWOT of Academy, resulting in measurable action items.
1.3.A.	Little or no evidence of data-driven and mission-driven decision making.	Data is used to design student interventions, Annual Action Plan (AAP), and to inform teaching and learning aligned to the mission.	Teachers work interdependently as teams to review data across content areas, develop targeted interventions, and develop common formative assessments.	The Academy's continual analysis of results for improvement is critical to the school's system of interventions and culture of celebration.
1.4.A.	Academy leadership occasionally collaborates with each other (6th - 12th), with T-STEM centers, and T-STEM Coaches.	Academy leaders and staff collaborate with each other (6th - 12th), and with T-STEM Centers and Coaches to integrate STEM teacher preparation, teaching, and learning. *And meets criteria from Developing*	Academy plans with regional T-STEM Center, vertical alignment teams 6th - 12th (at least quarterly), and meets with their T-STEM Coach, virtually or Face-to-Face (at least monthly). *And meets criteria from Developing and Implementing*	Academy dialogues on a regular, ongoing basis in vertical alignment teams (6th - 12th), with T-STEM Centers and Coaches, and utilizes available T-STEM resources to improve student achievement and teacher preparation. *And meets criteria from Developing, Implementing, and Mature*

Benchmark 1: Mission-Driven Leadership

- Program Requirement 1.3.A. addresses the use of data to drive design, decision making, and program review in a T-STEM Academy.
- Designated campuses will be expected to meet or exceed “Implementing” on the rubric above (Data is used to design student interventions, Annual Action Plan, and to inform teaching and learning aligned to the mission) by the end of the first designated year.

Describe below how the campus will meet or exceed this expectation.

The Weslaco 21st Century T-STEM Academy pedagogy will be inquiry and project based learning. This pedagogy is consistent with the mission and educational philosophy of the school because it will promote personalized teaching and learning and life long learning as a process of self-development.

The staff will perform annual curriculum review cycles to facilitate ongoing development, improvement , and refinement of the curriculum. Quantitative and qualitative data (i.e. ACT, SAT,TSI, STAAR, surveys , student portfolios , etc.) will be collected by staff, parents, teachers , and students to understand the strengths and weaknesses of curriculum and instruction twice a year. Successful curriculum and curriculum implementation will be assessed by predetermined goals (for example, percent of students scoring above state average on SAT and ACT) for each content team.

All teachers will be evaluated using the T-TESS evaluation tool, which was recently approved by the state and is currently being piloted by Weslaco ISD. This tool will ensure that teachers are thoroughly evaluated in the following areas:

Planning
Instruction
Learning Environment
Professional Practices and Responsibilities

Data will also will be reviewed annually to facilitate the ongoing development, improvement and refinement of our teaching staff.

The Weslaco 21st Century T-STEM Century T-STEM Academy will use traditional exam based with non-traditional portfolio-based assessments. This balance will allow differentiated avenues for students to display their mastery of content and application to problem solving. This method will also be linked to curriculum and instruction which is rigorous, hands-on, student centered, real-world, project and inquiry based learning.

Data will be used to design Campus Improvement Plans and Annual Action Plans. Through content planning and CPT teachers will also collaborate and review student data as teams across content areas. They will develop targeted interventions and develop common formative assessments and/or benchmarks.

Weslaco High School (Main Campus) participated in a School Reform process several years ago, that divided up the campus into small learning communities (SLC). Teachers are provided time to plan within their SLC and also time to plan with their content area teachers. The Weslaco 21st Century T-STEM Academy will follow this framework in an effort to better serve the students.

The mission of Weslaco T-STEM Academy is to cultivate the interest and preparedness for T-STEM careers by rigorous course work, intentional curriculum, and instructions and exposure to T-STEM careers via internships, community collaborations, and parental involvement. The purpose of the school is to increase the number of low SES students to declare T-STEM majors upon entering college, be prepared for the rigor of T-STEM in higher education and graduate from college with a T-STEM degree. All decision will be aligned to the mission of our campus.

- Program Requirement 1.2.C. details the requirements for an Academy's advisory board (AB).

List the planned AB members and their job title (example: John Smith, School Board Member; Jan Smith, STEM Business Leader, etc.). Detail how this board will support the Academy work.

Weslaco T-STEM Leadership Team:

David Fuentes, President of the School Board of Trustees
Dr. Ruben Alejandro, Superintendent of Schools
Susan Peterson, Assistant Superintendent of Curriculum and Instruction
Sergio Garcia, Executive Director of Secondary School
Norma Brewer, College Readiness Director
Sandra Avila, CTE Director
Elizabeth Alaniz, Staff Development Director
Nora Lopez, Math Strategist
Paul Mata, Science Strategist
Carlos Martinez, Technology Director
Dr. Sandra Reed, President of South Texas College
Sofia Pena, ECHS Director for South Texas College
Yvett Morales, Weslaco HS Principal
Pat Munoz, Central Middle School
John Garlic, Bea Garza Middle School Principal
Randy Wnston, Sigler, Winston, Greenwood and Associates SWG Engineering, LLC
Dr. Raul Marquez, Marquez Orthopedic Institute
Dr. Javier De La Graza, D.D.S.
Dr. Jaime Rodriguez, OD

The team will support the Weslaco 21st Century T-STEM Academy by providing the necessary resources that will be needed to support the program. This strong team brings years of experience in the organization and building of new instructional entities.

The leadership team will also be responsible for perpetuating the trust of the school and overseeing its welfare. Their primary responsibilities are to employ the leader of the school and to supervise, support, and assess their performance. The team also establishes the school's mission, philosophy, and educational ends, while developing a strategic plan derived from that mission.

Our advisory board will guide and lead us to assist in guidance and insight on the professions and careers they are working in. They will also assist us to enhance the program to be successful and to guide us on how we can include community involvement in the program.Our advisory board will be an informal group of local business professionals who can help us prepare our 21st Century T-STEM Academy students for the real world and a formal group that are directly linked to the campus. Our goal is to ensure that all of our students are provided with all of the support and resources they need to be successful. And because advisory boards are unofficial we have a great deal of latitude on how we set it up. Our advisory board will be structured both to help with the direct operation of the program and to keep us informed on various business, legal and financial trends that may affect your program. It will consist of successful entrepreneurs from industries who understand the basics of our program. They will view our program with a fresh eye. We personally know all of the people whom we wish to serve on our advisory board and all have those areas of expertise in our program. They are part of our community and are very willing to partake in this endeavor with us.

Program Requirement 1.1.A: Provide the Academy mission statement below.

The mission of Weslaco 21st Century T-STEM Academy is to cultivate the interest and preparedness for T-STEM careers by rigorous course work, intentional curriculum, and instructions and exposure to T-STEM careers via internships, community collaborations, and parent involvement. The purpose of the school is to increase the number of low SES students to declare T-STEM majors upon entering college, be prepared for the rigor of T-STEM in higher education and graduate from college with T-STEM degree.

Our mission is also to provide leadership, support and opportunities for all T-STEM stakeholders through the following initiatives:

Develop Weslaco T-STEM standards of practice, lessons and units that facilitate higher-level thinking.
Implement T-STEM professional development for T-STEM educators.
Allocate funds for the implementation of T-STEM initiatives at Weslaco ISD.
Increase T-STEM participation from diverse populations
Collaborate and partner with other districts, businesses/industries, colleges, universities and technical institutions to promote and sustain T-STEM education.
Develop skills utilizing electronic resources for T-STEM teaching and learning.
Offer a quality education in an environment of democracy and equity.

- Program Requirement 1.4.A details the requirements for 6th-12th campuses to collaborate on a regular basis to advance 6th-12th alignment and student retention in STEM.

Describe below how the campus will meet or exceed this expectation. If Academy is 9th-12th write, "Not Applicable".

Not Applicable

Texas Science, Technology Engineering and Mathematics

Benchmark 2: T-STEM Academy Culture and Design
Program Requirement: 2.1 Personalization

2.1.A Addresses in AAP and strategic plan the details for remaining small, allowing for personalization and maintaining collaborative learning communities of students.
2.1.B Plans and implements a non-graded student advisory program that is regularly scheduled, noted in the master calendar/schedule, and focuses on personalizing the student experience, (builds relationships with students and parents, develops character, and fosters global literacy).
2.1.C Develops a process for hearing and responding to student voice.

Key Elements for Success	Example Artifacts
• Student IGPs w/ CCRS, Endorsements, and Performance Acknowledgement plans • Master schedule for advisory • Student enrollment	• Opportunities for orientation sharing and team building activities both on- and off-site • Advisory class curriculum • Student goal setting and reflection logs • Teacher mentors assigned to students • Pre- and post-assessments of advisory class goal • Students sit on advisory board and/or have voice in student work products, clubs, competitions, governance, and course offerings • School wide activities to build/share culture • Student ambassadors serving as classroom greeters and/or guide tour groups • Teacher/student ratios, actual class sizes • Surveys documenting students' elective requests

Developing	Implementing	Mature	Role Model
1. District and Academy resources are allocated to ensure teaching staff and facilities remain small.	1. Annual Action Plan and Academy handbook address plan for maintaining personalized, small, learning communities.	1. Students are regularly afforded multiple opportunities to build relationships with staff and peers such as working in academic and/or competitive teams horizontally and vertically.	1. Protocols are developed to ensure students have a clear and documented voice in the Academy (student council, advisory committee to the director, suggestion box, etc.
2. Student advisory is regularly scheduled and focuses on relationships, building school capital, developing and fostering global literacy.	2. Advisory class has written curriculum with goals, expectations, scope, sequence, and pacing guides.	2. Teachers work in teams to develop systemic advisory programs with horizontally and vertically aligned student outcomes.	2. Annual resources are allocated to develop, revise, and sustain advisory program with input from students, teachers, parents, and external partners.
	And meets criteria from Developing	*And meets criteria from Developing and Implementing*	*And meets criteria from Developing, Implementing, and Mature*

Texas Science, Technology Engineering and Mathematics

Benchmark 2: T-STEM Academy Culture and Design

Program Requirement: 2.1 Personalization

2.1.D Arranges for a flexible school day with blocks of time that support student learning (tutorials, collaboration, meetings).

2.1.E Celebrates high quality student work through student exhibits on-site, web-based, and/or in state and national forums.

2.1.F Provides every 6th – 12th student with an individualized STEM-focused high school graduation plan that addresses: four years of math and science; an Endorsement in STEM, Business and Industry, Public Service, or Arts and Humanities; identifies target areas for Performance Acknowledgements; and is at least annually reviewed and revised with the counselor, student, and family.

Example Artifacts

- Honor roll, grade level/school-wide celebrations
- Classroom and building displays
- Number of students participating in student exhibits
- Agendas/signatures for IGP meetings with students and family
- IGP, record folder/portfolio, 6th -16th course plan
- Master schedule, tutoring schedule
- Minutes/action items from site based committees, etc.
- Website showcasing student work
- Documentation of at least annual 6th – 12th IGP meetings with parents and students

Developing	Implementing	Mature	Role Model
1. Academy develops a flexible schedule that supports student success.	1. Schedule is developed with input from teachers, counselors, content coaches, extracurricular and internship/capstone requirements.	1. Teachers work in teams to adjust daily schedule to facilitate interdisciplinary PBL.	1. Schedule is adjusted to meet student needs according to data, student, teacher, and parent voice; intervention and extension plans.
2. Academy regularly schedules for students to share their knowledge and work products.	2. Students participate in panel presentations, debates, academic fairs, webinars, online challenges, competitions, design challenges, etc.	2. Resources are allocated to provide students with opportunities to participate in state and national forums, conferences, and competitions (financial, facilities, staffing, transportation, etc.).	2. Academy establishes protocols with input from key stakeholders to gauge the effectiveness of student participation in competitions, challenges, etc. towards promoting college and career readiness as well as Academy goals.
3. Academy develops IGP for each 6th – 12th student that addresses STEM pathways, THECB College and Career Readiness Standards.	3. Student, counselor, and family regularly review and revise the IGP to address student goals for courses, grades, Endorsements, Performance Acknowledgements, college entrance exams, PSAT/ACT/SAT, career aspirations, etc. *And meets criteria from Developing*	3. Annually reviews and revises IGP according to previously established protocols and timelines. *And meets criteria from Developing and Implementing*	3. Mentors are assigned to students to develop intervention contracts to address deficiencies or acceleration opportunities in IGP. *And meets criteria from Developing, Implementing, and Mature*

Texas Science, Technology Engineering and Mathematics

Benchmark 2: T-STEM Academy Culture and Design
Program Requirement: 2.2 Culture

2.2.A Collaborates with stakeholders to develop a new handbook or modify the existing handbook with clear procedures, policies, and consequences that support the development of a strong T-STEM culture.

2.2.B Involves all stakeholders in developing a culture of respect, responsibility, trust, and meaningful adult and peer relationships throughout the Academy in order to foster positive student identities.

2.2.C Creates a professional learning community environment of collaboration, teaming, and high expectations among administrators, teachers, and stakeholders, with a focus on and a commitment to the learning of each student.

Example Artifacts

- Handbook, attendance/discipline goals/data
- Customs and celebrations, modeling lessons for respect, responsibility, trust
- Student, teacher, parent surveys address culture
- Sharing of ideas and strategies and joint problem-solving are widespread.
- School developed common vocabulary for evidence of "good teaching"
- PLC protocols and expectations (meeting times, book studies, goals, results based on interventions, reflections on results – new actions, etc.)
- Collaborative planning of learning and teaching activities
- Widespread teamwork involving teachers and support staff
- Peer walkthroughs, lesson evaluations, and critical friends reflections

Developing	Implementing	Mature	Role Model
1. Handbook is developed to address student, parent expectations and a culture of respect, responsibility and trust.	1. Handbook addresses key tenets of cultural beliefs of Academy (student ability and achievement, efficacy and effort, power, distributed leadership, cultural sensitivity, proactive and reflective practice, etc.).	1. Handbook is developed with input from key stakeholders with clear policies, procedures, and consequences (attendance, discipline, student contracts, teacher extended days, etc.).	1. There is a high degree of commitment to school-wide professional values and a strong sense of cohesion and consistency of approach, with protocols to analyze, build, and assess effectiveness of culture.
2. Professional Learning Community (PLC) is developed which supports staff devoting effort, energy, time, and resources into incorporating valuable new strategies into their practice.	2. An inquiry-based continuous improvement orientation to practice is pervasive, with data informing practice and learning widely shared.	2. Staff regularly and consistently plans together, collaborates and shares ideas through meetings, website resources, teaming, team teaching etc., and garners input from external experts.	2. A desire to do the best for *all* students pervades the school as evidenced by protocols for regular and deep school-wide dialogue about good teaching, assessment, learning, projects, and successes of individual students.
	And meets criteria from Developing	*And meets criteria from Developing and Implementing*	*And meets criteria from Developing, Implementing, and Mature*

Benchmark 2: T-STEM Academy Culture and Design

- Applicants should consider the program requirements listed above as they pertain to a student's individualized learning experience.

Describe the campus's efforts to support students to reach this goal. This description should include plans for: an advisory period, a positive school culture, enhanced relationships with parents, and responding to student voice.

Students participating in the program will each have a Personal Graduation Plan which will include student and parent goals. It will also include diagnostic information and appropriate monitoring and intervention for each student.

All students will also participate in an advisory period, which will be scheduled during the day. During this period students will be assigned to a teacher advisor who will guide them in making the right educational decisions. All students will meet with their teacher advisor on a regular basis. Staff will focus on the social and emotional, physical and ethical behaviors and progress. This is a structured time, spanned across the entire school year. Students will be asked to identify their needs, create goals and create a plan that ends with success. Teacher advisors will facilitate appropriate activities and provide consistent, caring and continuous adult guidance. They will monitor student progress and adjust the students plan accordingly. We believe, that all students deserve an opportunity to be successful. All students should be respected and well known. Adults should understand students' particular strengths and weaknesses, worries and hopes, and accommodate them accordingly. Staff will create a culture of positive relationships with our students (all of them) and create a sense of trust and mutual respect. In return, we hope to foster a sense of student responsibility and return the same level of respect. The ultimate goal is that all students are successful during their four years at Weslaco 21st Century T-STEM School, and become college and career ready.

The Weslaco 21st Century T-STEM students in collaboration with their parents, will establish a parental involvement plan which includes programs and practices that enhance parental involvement and reflect the specific need of our students and their families. The plan will involve parents of students at all grade levels in a variety of roles. Focus will be placed on communication between the home and the school. Communication should be two-way and meaningful. Parents will be provided with information packets, which will describe the district parental involvement program. We will include opportunities where parents can be involved in school. The campus will also utilize emails, newsletters, phone calls, notes sent home and other means to keep parents informed and involved. The school will recognize that the parents are full partners in the decisions that affect their children.

The Weslaco 21st Century T-STEM Academy will be working closely with the community. We currently have several partnerships with businesses in the community. Our students will be encouraged to volunteer a minimum of 10 hours per year of community service. They will also be allowed opportunities to visit job sites, shadow a mentor in a career of their choice, volunteer in a
T-STEM career, visit UTRGV STEM center and view live surgeries.

Applicants should consider the program requirements listed in the "Benchmark 2 Program Requirements" link above as they pertain to postsecondary college and career success.

- 6th-12th STEM-focused high school graduation plan: IGP with Endorsement, Performance Acknowledgement, and Distinguished Achievement.
- 6th-12th STEM career and college exploration, and college readiness preparation with students and parents to include college transition plan.
- Collaboration with IHE.
- All students should graduate with 12-30 hours college credit and be prepared for postsecondary coursework in STEM fields.

All students will be encouraged and challenged to meet their full educational potential by earning high scores on the TSI, ACT, and SAT tests. Parents and students will be provided with information that explains the importance of these exams. All students will be provided with registration packets and fee waivers for those that qualify. Information to parents and students will be continuously provided via school website, district television channel, emails, etc. Students will have opportunities to attend test preparation seminars. Students will take pre-assessments to prepare them for ACT and SAT (i.e. PSAT, PLAN, etc.)

Students will be enrolled in advanced classes that are required for graduation or part of the degree plan for South Texas College. The curriculum will prepare students with the necessary skill to excel in college entrance exams.

The Weslaco 21st Century T-STEM Academy design team and South Texas College have met on numerous occasions to address course offerings, staffing, tuition-fees, textbook, transportation and use of facilities. Other areas discussed include curriculum and instruction, governance, student support structures, parent and community involvement. The meeting will continue to take place throughout the school year.

The functions of the group are the following:

IHE (South Texas College) Staff:

Provides leadership and oversees the Weslaco 21st Century T-STEM Academy
Provides external support from Texas Education Agency, Educate Texas, and other entities
Coordinates the successful implementation of all T-STEM initiatives with staff
Assist with the application, promotion and implementation of T-STEM initiatives with Weslaco ISD
Works closely with the T-STEM personnel in the promotion and the selection of participating students and faculty
Provides support for curriculum alignment
Supports district with resources that help our at-risk population
Works jointly with STC department chairs and T-STEM staff to ensure that course requirements, content, syllabi, etc. is aligned
Shares their educational philosophy and pedagogical approach with district
Provides support for students that have academic difficulties
Provides support and guidance for long term planning

District Staff

Provides resources, such as infrastructure and funding to ensure the success of the students.
Provides support and direction so that curriculum alignment is in place
Provides academic support structures
Establishes procedures for blended curriculum
Assist us in improving our community by bridging the gap between high school and post-secondary schools.

Through these coordinated efforts, our goal is to graduate all students with an Associate’s Degree or get them core complete.
Rigorous academic standards are demanded from participants, so staff collaboration and personal attention are the standard. We would like to assist in having an authentic relationship by providing long term support for one another, challenging one another to improve and to question our current perceptions and to learn together. We would like to provide leadership that has direction and momentum, and one that will be able to negotiate tough passages within the program. We would like to have support and other initiatives for the successful implementation of the program. We would like to offer college awareness of tuititon costs and awareness to parents. And ensure that curriculum alignment and transitions from high school to college will be monitored closely so when they are ready to plan to attend, they are ready to take on the challenge.

- Program requirement 2.2.C. highlights the importance of a strong Professional Learning Community for the success of all students.
- Review at the rubric continuum and tools in Example Artifacts from a successful Academy.

Describe how the campus will use these tools to progress into a "Mature" campus over time. "Staff regularly and consistently plans together, collaborates and shares ideas through meetings, website resources, teaming, team teaching, etc., and garners input from external experts." This description may include inquiry-based approaches, data informed decision making, Professional Learning Communities, collaboration, and integration of technology.

The staff at the Weslaco at Weslaco 21st Century T-STEM Academy will engage in a variety of activities to ensure that all students are successful.

The following are some of the areas that they will focus on:
Staff will share a vision
Staff will work and learn collaboratively
Staff will participate in shared decision making

Our goal is to reduce isolation of teachers and keep staff better informed and committed to ensure academic gains for students.

Staff will share a vision, which is not just agreeing with a good idea. Staff will review the mission that has been included in this application and collaboratively develop a vision. They will be expected to use that vision as a guidepost in making decisions about teaching and learning in the school. All staff members will be responsible for his or her actions, but the common good will be placed on a par with personal ambition. An emphasis will be placed in open communication.

In order for our learning community to function productively, WISD will ensure that staff is provided with designated and protected time to meet and talk. We will also make sure that the campus is conducive to encompass the physical proximity of staff to interact with one another. The campus will also promote interdependent teaching roles and develop strong communication structures. The campus will also have school autonomy and teacher empowerment.

Feedback will also be provided to staff to work toward improvement. We will focus on respect and trust among colleagues and district level staff.

Staff will use Eduphoria Forethought (Computer Program) to upload their information and share educational information with each other. Staff will also have the opportunity to have access to curriculum that has been developed by central office staff and updated periodically. They will also be attending T-STEM conferences, boot camps and other professional developments to ensure that our students are given rigor curriculum and are college ready.

Weslaco 21st Century T-STEM Academy was designed using the key components of the Early College High School Model to motivate and to engage students who are at risk of dropping out of school in learning academic and social skills necessary to complete high school and prepare them for postsecondary success in a small learning environment. Students are engaged in rigorous and relevant instruction, research careers of interest, discuss college requirements and courses of study with teachers, counselors and staff in an effort to prepare the students for post-secondary experience.

Students below grade level will receive intensive interventions before, during, after school, during advisory and on Saturdays. The teacher will assist students during their intervention sessions during class using alternate methods of instruction. Students have the options to work with a peer tutor of their choice in English language arts, math, science and social studies.

Texas Science, Technology Engineering and Mathematics

Benchmark 3: Student Outreach, Recruitment, and Retention
Program Requirement: 3.1 Recruitment and 3.2 Open Access

3.1.A Develops structures and processes for marketing and recruitment to encourage participation from underserved students and families (transportation or plans for transportation to the school, child care for family events, and translation of all recruitment and marketing materials).
3.1.B Actively partners with feeder middle and/or elementary schools to develop student interest in STEM education and to increase advancement rates from middle school STEM to high school STEM.
3.1.C Develops a systemic recruitment plan that includes students, parents, counselors, teachers, district, and community.
3.2.A Develops an admission policy to include an open access, lottery-based selection process that encourages applications from all students. The application will not be based on state assessment scores, discipline history, teacher recommendation, minimum GPA, or other requirements that would be used to limit selection.
3.2.B Consists of a population that is 50% or greater economically disadvantaged and underrepresented students.

Key Elements for Success	Example Artifacts
• Written admission policy and application with lottery explained	• Recruitment schedule and locations (schools, churches, community centers, etc.) • Brochures and marketing items in English, Spanish, and/or relevant second language • Survey data (community input, enrollment trends, etc.) • STEM feeder school crosswalk recruiting curriculum • Plan to recruit with feeder schools • Documented support efforts (transportation, child care, etc.) • Needs assessment • Number and percentage of students matriculating from middle school STEM to high school STEM

Developing	Implementing	Mature	Role Model
1. Academy details a plan and process for marketing to and recruiting from appropriate communities and feeder schools to reach high need and underrepresented students.	1. Marketing and recruitment plan developed with input from key stakeholders, and targets feeder pattern, community needs, and cultural relevance.	1. Marketing plan highlights Academy's STEM pathways and Endorsements; and industry and higher education partners. Recruitment efforts include Academy staff, students, and parents. At least 80% of 8th grade MS STEM students matriculate to HS STEM Academy.	1. Students and staff from Academy collaborate with feeder schools to develop, deliver, and monitor recruitment results from STEM crosswalk engagement lessons conducted at the feeder middle schools. At least 90% of 8th grade MS STEM students matriculate to HS STEM Academy.
2. Academy has at least 50% economically disadvantaged and underrepresented students, via an open, lottery based admission policy, where the application *does not* include requirements that might deter students such as STAAR, grades, teacher recommendation, discipline, or attendance.	2. Clearly communicated admission policy that indicates target enrollment goals and implements support processes structures such as transportation, child care, etc. to meet goals. *And meets criteria from Developing*	2. Academy tracks enrollment data and indicates some increases in recruitment/enrollment rates. *And meets criteria from Developing and Implementing*	2. Academy employs a needs assessment to analyze demographic trends to ensure equitable access and recruitment of greater than 50% economically disadvantaged and underrepresented students and sustains a full complement of students at each grade level. *And meets criteria from Developing, Implementing, and Mature*

Texas Science, Technology Engineering and Mathematics

Benchmark 3: Student Outreach, Recruitment, and Retention

Program Requirement: 3.3 Student Support and Retention

3.3.A Develops and implements systemic, tiered strategies for student support and retention (outreach, early intervention strategies, mentoring, tutoring, counseling, and other supports for academic and socio-emotional growth).

3.3.B Hosts 5th – 6th and 8th – 9th orientation session(s) and summer bridge program(s) to facilitate successful student transitions and retention into a STEM-focused, college preparatory, project-based learning environment.

3.3.C Provides all students with opportunities and the expectation to assume roles of responsibility within the classroom, Academy, and community.

3.3.D Supports and monitors 6th – 12th student participation in STEM activities both within and outside the classroom to ensure that all students engage in STEM clubs, STEM competitions, and STEM field experiences.

3.3.E Hosts parent seminars to develop deep understanding and commitment to the rigor of college readiness and the high expectations of a STEM Academy.

Example Artifacts

- Student, parent, staff contracts
- Student retention and persistence plan
- Orientation and bridge agendas
- Exit interviews
- IGPs Minutes from persistence meetings, retention/attrition data
- Program adjustments due to student and community voice
- Copies of trainings and participation of parents/community
- Satisfaction/interest surveys from students, parents, community, staff, etc.
- Lists of clubs, service learning projects, STEM activities, STEM field experiences, and planned competitions

Developing	Implementing	Mature	Role Model
1. Academy develops a strategic plan for student retention and persistence, and maintains persistence rates above 70%.	1. Student persistence rates range between between 70-80% and the strategic plan addresses research-based supports such as annual IGP review, parental involvement, tiered interventions, and cultural relevance.	1. Student persistence rates range between 81-90%, and the strategic plan includes yearly metrics, analysis of why students leave, and a plan to identify and prevent at-risk students from leaving.	1. Campus engages in ongoing dialogue to address persistence data (lack of course credit, leaving the Academy) and uses data to ensure persistence rates above 90%.
2. Academy develops student orientation/summer bridge program(s), student clubs, and plans for external STEM activities and competitions.	2. The orientation/summer bridge program sets priorities and includes a timeline with skills, tools, and resources for students to successfully transition to a STEM environment.	2. The orientation/summer bridge program is implemented as planned and continually refined annually, with a complete scope and sequence and supporting materials.	2. The orientation/summer bridge program monitors initial student success, identifies struggling students early on, and ensures those students have additional support.
3. Students can select from a small number of leadership opportunities available.	3. The staff encourages students to select leadership opportunities.	3. The staff monitors student involvement in leadership and STEM activities, clubs, and competitions; and develops interventions for students who have minimally participated.	3. Student leadership is evidenced in nearly every non-classroom related initiative or event and at least 90% of students participate in leadership and/or STEM activities, clubs and competitions.
4. Academy creates STEM Academy orientation for parents and stakeholders.	4. Opportunities exist for parents and stakeholders to participate in service learning, and/or attend student presentations.	4. At least bi-annual opportunities exist for parents and stakeholders to participate in STEM activities.	4. Annual parent and stakeholder participation goals are developed and monitored for continued improvement.
	And meets criteria from Developing	*And meets criteria from Developing and Implementing*	*And meets criteria from Developing, Implementing, and Mature*

Benchmark 3: Student Outreach, Recruitment, and Retention

- Review Program Requirement 3.1.A/B/C and 3.2.A/B.

Describe the Academy's open-access admission policy, the marketing, and recruitment plan to parents, students, and the community; and partnering with feeder schools to increase advancement rates in STEM from elementary to middle to high school.

The Weslaco 21st Century T-STEM Academy will apply its resources to serve all eligible students who are interesting in an Associate's Degree in T-STEM Programs of study. Weslaco ISD will open this opportunity to all students which will include those that are at risk, Limited English Proficient, and/or those who have failed state assessments.

All interested students will be encouraged to apply. Classroom presentations will be conducted at each middle school starting in February to May 2106. Mandatory parent information sessions will take place during June 2016. Weslaco ISD will be using district resources to inform the community about this opportunity.

District resources include the following:
Local Newspaper
Local TV Station-KWES District Email System Blackboard Call-Out System
Phone calls to parents and home visits
Teacher Recommendation
Until the classrooms are filled, students will be selected in this order of priority:
First generation college goers
Students of low socio-economic status
Any other interested students

In order to be considered for selection to Weslaco 21st Century T-STEM Academy students must complete the following:

Attend campus information session scheduled for May 2016

Attend information session for parents and students in June 2016. At the completion of the information session students will be asked to complete a reading inventory and a writing and math pre-assessment. Students will also need to submit the following paperwork:
1) Completed Admissions application
2) 500 word essay
3) Current signed copies of IEP/504 plans if applicable
4) Report Card and Official School Transcript
5) STAAR Confidential Student Report
6) Attendance history
7) Discipline history
8) A letter of recommendation from assigned counselor or principal/assistant principal.

A committee comprised of the administrator, counselor, and teacher will review all applications and select the 125 students for the 2016-2017 school year. They will also select 10 student alternates.

Enrollment

The T-STEM Academy administrator will work closely with students and parents and should finalize enrollment by May 21st. A total of 125 students will be selected.

Attendance

At time of enrollment, staff will discuss with the parents the importance of student's regular attendance. The administrator will assign a staff member to record student's absences. If teacher have been advised of the reason for a student's absence, they will inform the designated person. If the reason for a student's absence is unknown, at the end of the third day staff will visit the family and verify the reason the student has been absent, and whether the family needs any help.

- STEM Academies host orientation, summer bridge, and college preparatory seminars for parent and students; encourage student leadership, monitor student participation in STEM activities, clubs, competitions and field experiences; and develop intervention plans for students who minimally participate.
- STEM Academies maintain persistence rates above 70%, with a goal of at least 90%

Describe the campus plan to progress to "Mature" on the continuum for Program Requirement 3.3 Student Support and Retention (review the "Benchmark 3 Program Requirements" link at the top of this page).

Support services will be available for students at risk of falling behind.

Student leadership programs will be in place to provide students with opportunities to create cultural, social, educational experiences that will enhance the overall learning. These initiatives will embrace diversity and collaboration that will enhance the overall learning. The Weslaco 21st Century T-STEM Academy will encourage students to participate in student organizations such as Senior Class, Student Council, etc. This too will provide leadership opportunities for students.

The campus will hold parent sessions 3 times a year that will provide parents with detailed information regarding the high expectations set for their children and a deeper understanding of the rigor involved in each course.

Weslaco 21st Century T-STEM Academy was designed using the key components of state's T-STEM initiative. These key components are to motivate and to engage students who are at risk of dropping out of school in learning academic and social skills that are necessary to complete high school and to prepare them for post-secondary success in a small learning environment. Students are engaged in rigorous and relevant instruction, research careers of interest, discuss college requirements and courses of study with teachers, counselors and staff in an effort to prepare the students for a post secondary experience.

Students below grade level will receive intensive interventions before, during, after school, during advisory and on Saturdays. The teacher will assist students during their intervention sessions during class using alternate methods of instruction. Students have the options to work with a peer tutor in English language arts, math, science and social studies.

Students will be assessed every six weeks to measure progress for each core content area using district's six weeks benchmarks and teacher developed tests.

Staff will also utilize the following to monitor progress and identify areas of need:

Formative Assessments- Observations, questioning, discussions, graphic organizers, visual representations, etc.

Summative Assessments-Benchmarks, state mandated exams, teacher developed exams, projects, etc.

Failure Sessions-Counselor will conduct failure sessions with each student and parent to discuss the progress of their students

Family Advocacy Period- Students will participate in a family advocacy period, where a student advocate will monitor the progress of the student.

Credit Recovery Opportunities-Students will be able to participate in credit recovery opportunities through Edmentum program.

College Readiness Program- Students will have an opportunity to participate in the college readiness program that will focus on college readiness and TSI review sessions.

Summer Bridge Program- Students will receive academic preparation, highly individualized academic advising, and personal attention in a nurturing environment. This will focus on college readiness. Students will be able to receive first-hand information from college personnel on their responsibilities as college students. Focus will be placed on time management skills, study skills, testing skills, etc.

Academic Advisor- Students will be assigned to an academic advisor that will support them form orientation to graduation by providing guidance on course selection, career planning, and progress towards fulfilling degree requirements.

Benchmark 4: Teacher Selection, Development, and Retention

4.1.E.	Provides opportunities for ongoing professional development to improve teachers' content knowledge, technology embedded instruction, integrative STEM pedagogy, college and career readiness standards, instructional strategies for ensuring a successful P-20 pipeline, and leadership capacity.
4.2.A.	Develops a Professional Development (PD) plan for a sustained professional development model of continuous learning based on student results, teacher development, and the short- and long-term goals of the Academy.
4.2.B.	Adopts a systemic professional development model of continuous learning that addresses prioritized needs as informed and evaluated by multiple sets of quantitative and qualitative data (student assessment data, instructional/classroom evaluations, technological developments, workforce demands, demographic changes, and community/societal expectations and needs).
4.2.C.	Sustains a PLC by instituting job-embedded ongoing opportunities for continuous learning, peer coaching/mentoring, STEM externships, and participation in STEM teacher and leader cadres for teachers and administrators (research-based practices, content competence, new instructional strategies, technology integration, reflective inquiry, and student artifact analysis).
4.3.C.	Adopts and implements a plan for new teachers to include orientation, induction, acculturation, mentoring, professional development, and administrative support.
4.3.D.	Designs or employs innovative programs to support the recruitment and selection of highly qualified STEM teachers.

Key Elements for Success

- Master schedule with common planning time
- Teacher turnover rate
- Teacher mentoring program
- Written recruitment plan

	Developing	Implementing	Mature	Role Model
4.1.E	Academy has authority to hire "best" qualified for goals of the Academy and STEM blueprint requirements.	Develops a written plan for creative recruiting to ensure high qualified, effective teachers.	Develops annual needs assessment and actively implements a teacher recruitment and placement program.	Resources are allocated for recruitment of best qualified candidates, with the Academy partnering with teacher preparation programs such as UTeach, to recruit highly qualified teachers for Academy needs.
4.2.A. 4.2.B.	Develops PD plan with clear pedagogy expectations, aligned with mission goals, teacher needs, and student needs	Academy regularly uses diverse assessment tools/processes, enhanced media, adult learning theories, professional reflection time, problem-solving protocols, and self-paced learning with computer and human interaction for support, coaching, mentoring, and collegial interaction.	Needs assessment and PD plan address teacher and student retention to include teacher, student, and parent voice in decision-making process.	Meaningful partnerships with external organizations ensure progressive expectations for educators' application of content knowledge, curriculum design, and delivery.
4.2.C.	Develops a PLC plan that identifies ways in which teachers will work in collaborative teams to build shared knowledge and formative/summative data.	Teachers collaboratively develop 6th - 12th common essential student outcomes which reflect their efforts to build shared knowledge regarding best practice, (STEM integration, college and career readiness, 21st century skills,).	Teachers collaboratively clarify the criteria they use to judge quality of student work and criteria is consistently applied horizontally and vertically.	Teachers participate in externships and mentorships with higher education and industry. PLC plan is annually monitored, evaluated, and revised for effective practice.
4.3.C	Develops an Orientation plan aligned to Academy mission and vision, and teacher enculturation.	Induction plan addresses Academy expectations for instructional skills; interactions with students, parents, and community; classroom management; assessment of learning; technology; professional development; and mentoring.	Induction process is clearly enunciated, consistently practiced, and evaluated and revised for effectiveness.	Each new teacher participates in the induction process, is assigned a mentor teacher, understands the strategic goals of the Academy, and completes a Needs Assessment that identifies areas for individual professional development.
4.3.D.	Common planning time within the school day focuses on PLC collaboration.	Teams develop team-time norms, set goals, and evaluate effective use of team-time for curriculum development, student artifact reflection, parental involvement, etc. *And meets criteria from Developing*	Teams develop common metrics to measure and inform, in order to identify strengths and weakness in their individual practice, and to collaboratively improve their individual and collective efforts to help all students learn. *And meets criteria from Developing and Implementing*	Collaborative school-level planning is judged effective as evidenced by student learning outcomes. *And meets criteria from Developing, Implementing and Mature*

Benchmark 4: Teacher Selection, Development, and Retention

- Review program requirements for benchmark 4 in the link above.

Describe how the Academy will recruit, support, and retain highly qualified teachers. This should include plans for:

- Teacher recruitment and retention plan
- Sustained professional development (PD) plan which incorporates project-based learning and an integrated STEM curriculum into instructional practices based on qualitative and quantitative student data. (A timeline of planned PD will be uploaded in Benchmark 7.)
- A job-embedded Professional Learning Community with common planning times for collaboration.
- New teacher support (new to Academy and/or teaching profession).

Many reasons exist for a shortage of T-STEM teachers nationwide. One factor is financial. Weslaco ISD is the most progressive and highest paying school district in the region. These qualities have allowed the district to attract many highly qualified teachers and to have a high retention rate. Stability in the teaching staff often helps foster a collaborative environment in which teachers work together to advance student achievement. However, some movement of teachers in and out of schools is normal.

The district's progressive nature has created a culture of professional learning that continually develops, renews teacher skill and interest in the profession, and promote implementation of best practices. Weslaco ISD strengthens the ongoing professional development model for teacher recertification. In addition to this, we encourage and support educator's attendance at state and regional professional conferences. We will develop corps of retired teachers and business/industry personnel to assist teachers in classrooms. Additionally, provide paid educator externships to augment skill, knowledge, and income. In order for teachers to grow professionally. Weslaco ISD focuses on ways to convince potential teachers to continue in education.

In 2008, Weslaco ISD adopted the Small Learning Communities (SLC) model for both of its high schools. Through this model, the high schools developed a common planning time for teacher in each community as well as common conference periods for core area teachers. This provided teachers the opportunity to collaborate with their interdisciplinary colleagues as well as with their departments.

Weslaco ISD has a new teacher support plan in place. This includes, but is not limited to, professional learning in classroom management, best practices, and Texas Essential Knowledge and Skills. All teachers new to Weslaco ISD already receive an experienced mentor teacher. This requirement will be extended to the T-STEM program with one additional provision. The mentor will be required to be an expert teacher that is experienced in a T-STEM field. Our T-STEM teachers will be given professional development throughout they year and will be expected to offer a blend of instructional strategies:

Interactive Instruction relies heavily on discussion and sharing among participants. Students can learn from peers and teachers to develop social skills and abilities, to organize their thoughts, and to develop rational arguments.

Experiential Learning is a process through which students develop knowledge, skills, and values from direct experiences outside a traditional academic setting.

Independent study is a different way of learning. In independent study, a student is guided by a teacher but usually does not take classes with other students every day. The student works independently.

Direct Teaching (direct instruction, explicit instruction, target teaching, whole-class instruction, teacher-led instruction, lecture, teacher-centered instruction) The teacher tends to be at the center of the instruction dictating its pace with a high degree of teacher talk.

Indirect Teaching (indirect OR student-centered instruction) The teacher creates an instructional sequence whereby students work more independently—as individuals, in pairs, or in groups—to construct knowledge rather than hear about it.

Blended Learning is a formal education program in which a student learns at least in part through delivery of content and instruction via digital and online media with some element of student control over time, place, path, or pace.

Project Based Learning is a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an engaging and complex question, problem, or challenge.

Collaborative Learning is a situation in which two or more people learn or attempt to learn something together.

7 Habits of Mind by Steve Covey during FAS lesson, Imagine you had a roadmap—a step-by-step guide to help you get from where you are now, to where you want to be in the future. Your goals, your dreams, your plans…they are all within reach. You just need the tools to help you get there

Benchmark 5: Curriculum, Instruction, and Assessment

Example Artifacts: 5.1

- Course syllabi, lesson plans, unit lessons, PBL, scope, sequence, pacing guides
- Lessons include STEM standards, state standards, national standards, college and career readiness standards, 21st century skills
- Benchmark schedule, course passing rates, retention rates
- Student portfolios, IGPs, counseling, advising, college crosswalk, and feedback loop
- Plans for PSAT, Accuplacer, TSI, CTE, interventions, etc.
- Horizontal and vertical alignment of curriculum
- Students graduate with Endorsements & Performance Acknowledgements

In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.		**Developing** Investigate, Research, and Create	**Implementing** Formalize, Revise, and Publish	**Mature** Data-driven evaluation of effectiveness of program requirements	**Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance
5.1.A.	Aligns curriculum, instruction, and assessment (such as, but not limited to, Texas CCRS, national and state standards, content, context, culture, cognitive level, competencies, skills, processes, 21st century skills, and STEM synthesis).	*Implementing*			
5.1.B.	Develops a scope, sequence, and pacing guide for a vertically and horizontally aligned curriculum centered on state standards, career and college readiness standards, STEM integration, and industry expectations.	*Implementing*			
5.1.C.	Develops an assessment and intervention plan to address gaps in student achievement and areas for extension.	*Mature*			
5.1.D.	Supports and encourages all students to successfully complete four years of mathematics, four years of science, four years of STEM electives, and at least one Endorsement in STEM, Business and Industry, Public Services, or Arts and Humanities, with a primary focus on a STEM Endorsement; and earn a Distinguished Level of Achievement as well as a Performance Acknowledgement in order to graduate college ready.	*Implementing*			
5.1.E.	Offers dual credit, articulated concurrent enrollment, AP or IB courses that all students will graduate with 12-30 college credit hours.	*Implementing*			
5.1.F.	Establishes curriculum expectations, monitoring, and accountability mechanisms that are reflectively revised to ensure a constancy of mission purpose (aligned resource allocation, integrated STEM curriculum development, teacher professional growth, and student results).	*Implementing*			

5.1 Rigor

- Review the program requirements for Benchmark 5.1 Rigor on the previous page.

Describe how the Academy will progress along the continuum. This should include plans for:

- Alignment of curriculum and instruction as supported by assessment
- Assessment/intervention or acceleration plans for students
- Plan for four tears of math, science, and 12-30 college credit hours (dual credit/AP/IB)
- HS Endorsements available to Academy students

The Weslaco 21st Century T-STEM Academy will progress along the continuum by ensuring that the following takes place:

Staff will ensure that vertical and horizontal alignment is in place in all content areas.
Cross-curricular planning will also be in place. Planning with South Texas College will take place throughout the school year. WISD teachers that hold a Master's Degree and are elgible to teach dual enrollment courses through South Texas College, attend staff development sessions and plan closely with program chairs at South Texas College. A syllabi needs to be approved by South Texas College before the first day of school.

District staff follows a scope and sequence that has been developed by district committees and is designed to prepare students for state and national assessments, and be college and career ready. Students that show that they are struggling in certain classes will be provided with the necessary support to enhance their academic skills and successfully master the requirements of such classes. Students will be provided with tutorials which will be available after school and on Saturdays. All students will be encouraged to complete the requirements of the Distinguished Level of Achievement plan and complete four years of science and math.

Students will also have the opportunity to enroll in Advanced Placement courses and challenge the AP exams at the end of the year.

Assessment data will be reviewed periodically through sessions that we call "DATA AND DESSERT" and staff will collaboratively identify the areas of need and find possible solutions to address those areas of need. During these sessions, staff will collaboratively create a 90-day action plan. This will serve as a road map to help keep each staff member focused on what is most important and to specify needed areas that require improvement. This plan will engage all stakeholders and it will include specific, measurable, attainable, realistic and timely measures.

WISD will also build campus capacity by providing the necessary support to Weslaco 21st Century T-STEM Academy. District support staff will also be available to make home visits and identify resources that are affecting the student's educational career.

Our program currently documents student progress every six weeks. Currently our program consists of 5 teachers. We meet regularly and discuss student progress. If we have a situation, we call parents to assist us with our goal and administrator or counselor also meets with the student to see what needs to be done to help with the situation. We currently offer an afterschool tutorial program, where students are allowed to go and complete assignments. They are also offered other afterschool tutorials such as extended day and Saturday school. We also offer all of our students a college readiness course where they get small group instruction and work on a TSI readiness program.

Another way we monitor progress is by submitting 3 week failure reports. Teachers submit an overall average of student progress. Administrator also discusses with teachers how we can work together to ensure the students are being successful. We currently are working with benchmarks and six weeks tests to measure student persistence and program completion. The administrator and counselors are meeting one to one with each student to plan and prepare for next year.

Teachers will frame actions and develop implementation plans on the basis or various data.

Collaborative action teams will be formed to ensure all students are learning equitably.

Students below grade level will receive intensive interventions before, during, after school, during advisory and on Saturdays. The teacher will assist students during their intervention sessions during class using alternate methods of instruction.

Students have the options to work with a peer tutor of their choice in English
Language arts, math, science and social studies.

Students will be assessed every six weeks to measure progress for each core content area using district's six weeks benchmarks and teacher developed tests.

Staff will utilize the following to monitor progress and identify areas of need:

Formative Assessments-Observations, questioning, discussions, graphic organizers, visual representation, etc.

Summative Assessments- Benchmarks, state mandated exams, teacher developed exams, projects, etc.

Benchmark 5: Curriculum, Instruction, and Assessment

Example Artifacts: 5.2

- Defined engineering coursework (Infinity Project, Project Lead the Way)
- Student journals, student presentations, peer performance assessment rubrics, and peer mentors
- Self-paced learning, student contracts, progress reports, exit interviews, parent/teacher/student conferences
- Lessons include work force clusters, expert practitioners, field-based learning, research of current issues, PBLs, guest speakers, differentiation, intervention and acceleration plans, student choice
- Number of offerings and number of students participating in co-curricular activities, clubs, academic teams, and competitions (UIL, Brain Bowl, Science Olympiad, Model UN, FIRST, BEST, Vex etc.)
- Design conceptual internships, identify STEM opportunities, business partners, scientific organizations, and universities
- IGP w/capstone project (research, annual review, and analysis)

In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.		**Developing** Investigate, Research, and Create	**Implementing** Formalize, Revise, and Publish	**Mature** Data-driven evaluation of effectiveness of program requirements	**Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance
5.2.A.	Delivers innovative STEM programs that are well-defined, embed critical thinking and problem solving, innovation and invention, and are aligned to state and/or national standards and industry expectations.	*Implementing*			
5.2.B.	Supports and encourages students to complete three years of STEM electives at middle school and four years of STEM electives at high school.	*Implementing*			
5.2.C.	Develops performance-based and project-based assessments aligned to these innovative programs and state/national/industry standards.	*Implementing*			
5.2.D.	Develops and implements a plan for supporting accelerated student achievement for students with demonstrated deficiencies or proficiencies in mathematics and science, to promote all students graduating ready for enrollment in credit-bearing postsecondary courses (e.g. Algebra I enrollment by 8th grade).	*Implementing*			
5.2.E.	Incorporates into the curriculum work-based contextual learning with a global perspective.	*Implementing*			
5.2.F.	Participates in extra-curricular academic activities centered on science, technology, engineering, and mathematics; i.e. STEM field experiences, clubs, and competitions.	*Implementing*			
5.2.G.	Develops 6th-12th students' portfolios of interest in: STEM capstone projects, STEM internship opportunities, and global STEM college, degree, and career explorations. Requires all high school students to complete an internship, and/or a STEM-related capstone project, presentation, and defense; primarily focused in the state's STEM-related economic development clusters (information and computer technology, energy, petroleum refining and chemical products, advanced technologies and manufacturing, aerospace and defense, biotechnology and life sciences.).	*Implementing*			

5.2 STEM-Focused Curriculum

- Review program requirements for Benchmark 5.2 STEM-Focused Curriculum on the previous page.

Describe how the Academy will progress along the continuum. This should include plans for:

- Well-defined STEM programs that are aligned with state, college and career readiness, and industry standards and embed critical thinking and problem solving, and foster innovation and invention
- Three years of STEM electives at middle school and four years of STEM electives at high school. For high schools, list the CATE elective pathways and courses that support each Endorsement offered by the Academy
- Performance and project-based assessments aligned to state, college and career readiness, and industry standards
- Work-based and contextual learning in the curriculum
- STEM-focused extracurricular activities (field experiences, clubs, and competitions)
- STEM-related internships and/or senior capstone projects, presentation, and defense
- Plan for 6th-12th student STEM portfolios

Weslaco 21st Century T-STEM Academy will work closely with South Texas College and identify the programs that are of greatest needs in our communities. We would like to focus on programs that will help our students improve our community.

Students will complete T-STEM programs that are aligned to state, college and career readiness.
Students will complete programs of study in science, technology, engineering, and mathematics.

CTE Elective Pathways and courses that support each endorsement supported by the Weslaco 21st T-STEM Academy will be the following:
Computer Science
Math Algebra 2, Pre-Calculus, AP Calculus, AP Statistics
Algebra 2, Chemistry, Physics, additional math or science
Additional endorsements will be added once the school is in existence and further planning takes place with South Texas College.
We will also be sending two teachers to Project Lead the Way summer training.

Our CTE department currently works closely with different businesses in the community where students can participate in internships. We will also be working closely with employers, community leaders to collaborate in building and sustaining educational programs that promote community growth and prosperity by preparing students for future work.

Weslaco 21st Century T-STEM Academy identifies the importance of enriched and diverse opportunities for students to learn, perform and be recognized. As a school we are committed to providing these opportunities. The community is the natural environment in which to provide students with meaningful work and authentic experience. The workplace offers wonderful student-adult ratios, often as low as one-to-one, providing students with positive and necessary attention and support. Quality Work-Based Learning allows students to develop the skills required to successfully transition from high school to higher education and careers.

Job Shadow program is a work experience option where students learn about a job by walking through the work day as a shadow to a competent worker. The job shadowing work experience is a temporary, unpaid exposure to the workplace in an occupational area of interest to the student.

Site visits is when a team of student goes to an institution to evaluate verbally, written and visual evidence. Site visits will be to local universities, colleges, and businesses in the community that students are interested in such as engineering firms, doctor offices, certified public accountant business, pharmacies, technology departments at central office, etc. We would also like to plan site visits to universities within the state of Texas and Ivy league universities within the country.
Hands on experience within the community will be crucial for our students. This means, knowledge or skill that someone gets from doing something rather than just reading about it or seeing it being done: They will participate in workshops and get hands-on experience leading classes.

Viewing live surgeries with orthopedic surgeon Dr. Raul Marquez. Students will get to see Dr. Marquez operate on a patient using the Navio robotic technology, by Blue Belt Technologies, Inc. The Navio’s, surgeon-controlled hand piece, allows the surgeon to accurately remove only the diseased portion of the knee while sparing healthy bone tissue and ligaments. This allows the patient to recover more quickly.

Community volunteer is perhaps the first and biggest benefit people get from volunteering is the satisfaction of incorporating service into their lives and making a difference in their community and country. The intangible benefits alone—such as pride, satisfaction, and accomplishment—are worthwhile reasons to serve. In addition, when we share our time and talents we are able to solve problems, strengthen communities, improve lives, connect to others and transform our own lives. Some of the volunteer opportunities would be to help at the local food bank, clean the local parks, help at a local shelter, work with the Red Cross, etc.

Benchmark 5: Curriculum, Instruction, and Assessment

Example Artifacts: 5.3

- Peer observations, mentors, cross-curricular teams
- Walkthroughs, observations, model lessons
- Data informs scaffolding, re-teaching, and extension
- Team planning that defines student products, assessments, rubrics, and standards for cross-curricular and other PBLs, teacher research on STEM field expectations, current issues, and technology.
- Student presentations include digital materials, peer and internal/external expert evaluation
- Academy teachers have mentors at university and industry level that provide input to curriculum development
- Year-at-a-glance checklist documenting course coverage of state standards, 21st century skills, college readiness standards throughout grading period

In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.		**Developing** Investigate, Research, and Create	**Implementing** Formalize, Revise, and Publish	**Mature** Data-driven evaluation of effectiveness of program requirements	**Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance
5.3.A.	Incorporates data-driven instruction.	*Mature*			
5.3.B.	Creates an environment for shared teacher responsibility and accountability for student learning across programs, content areas, and classrooms.	*Mature*			
5.3.C.	Organizes instructional expectations around problem-based and project-based learning with clearly defined learning outcomes for students and teachers that address state and national performance standards, college and career readiness standards, and industry expectations.	*Implementing*			
5.3.D.	Ensures teachers' use of the aligned scope and sequence and integration across the disciplines.	*Mature*			
5.3.E.	Ensures teachers' use of high-quality curricular materials aligned with state and national standards, college and career readiness standards, and industry standards.	*Mature*			
5.3.F.	Provides opportunities for students to exercise choice and voice within a relevant and rigorous context.	*Implementing*			

5.3 Instructional Practices

- Review the program requirements for Benchmark 5.3 Instructional Practices on the previous page.

Describe how the academy will progress along the continuum. This should include plans for:

- Data driven instruction
- Shared teacher responsibility and accountability (PLC)
- Project Based Learning (PBL)
- Alignment of scope and sequence with state, CCRS, and industry standards
- Students exercise choice/voice within relevant and rigorous curriculum

The Weslaco 21st Century T-STEM Academy will progress along the continuum by ensuring that the following exemplary instructional practices are in place:

Data Driven Instruction: Our schools already use data driven instruction. Curriculum is aligned vertically and horizontally to ensure student success.

Critical Thinking: We also focus on critical thinking skills. These are necessary to promote interdependence and provides self-confidence to utilize skills to solve problems. Through critical thinking, staff will stimulate meaningful learning and provide students with real-world problems. The teacher will be expected to promote self-directed learning by offering activities adaptable to individual learning styles.

Learner Needs: Teachers will be expected to differentiate instruction to meet the needs of the students.

Assessments: Students will be prepared to challenge and master state and national assessments.
We would like to offer a blend of instructional strategies:

Interactive Instruction relies heavily on discussion and sharing among participants. Students can learn from peers and teachers to develop social skills and abilities, to organize their thoughts, and to develop rational arguments.

Experiential Learning is a process through which students develop knowledge, skills, and values from direct experiences outside a traditional academic setting.

Independent study is a different way of learning. In independent study, a student is guided by a teacher but usually does not take classes with other students every day. The student works independently.

Direct Teaching (direct instruction, explicit instruction, target teaching, whole-class instruction, teacher-led instruction, lecture, teacher-centered instruction) The teacher tends to be at the center of the instruction dictating its pace with a high degree of teacher talk.

Indirect Teaching (indirect OR student-centered instruction) The teacher creates an instructional sequence whereby students work more independently—as individuals, in pairs, or in groups—to construct knowledge rather than hear about it.

Blended Leaning is a formal education program in which a student learns at least in part through delivery of content and instruction via digital and online media with some element of student control over time, place, path, or pace.

Project Based Learning is a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an engaging and complex question, problem, or challenge.

Collaborative Learning is a situation in which two or more people learn or attempt to learn something together.

Cornell Notes are a proven focused note-taking method. When used appropriately, students are guaranteed to increase their knowledge and raise their grades in any given class.

7 Habits of Mind by Steve Covey during FAS lesson, Imagine you had a roadmap—a step-by-step guide to help you get from where you are now, to where you want to be in the future. Your goals, your dreams, your plans...they are all within reach. You just need the tools to help you get there

Benchmark 5: Curriculum, Instruction, and Assessment

Example Artifacts: 5.4

- Project Based Learning (PBL)
- Systemic expectations for number of presentations per class, documentation of students presenting to internal and external panels
- Design teams, group projects, multiage projects, simulations, robotics teams, green teams
- Project scenarios based on real-world issues (Future City, FIRST, Odyssey of the Mind, etc.)

In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.		**Developing** Investigate, Research, and Create	**Implementing** Formalize, Revise, and Publish	**Mature** Data-driven evaluation of effectiveness of program requirements	**Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance
5.4.A.	Promotes instructional strategies that challenge students to think critically, innovate and invent to solve real-world, contextual problems.	*Mature*			
5.4.B.	Exposes students to critical readings in STEM-related fields and requires students to demonstrate their understanding of STEM disciplines in a work-based, contextual environment.	*Implementing*			
5.4.C.	Offers standards-based STEM programs that incorporate integrative STEM literacy and innovative instructional tools.	*Implementing*			
5.4.D.	Promotes applied and collaborative learning, and provides students with opportunities to present/defend their work to peers, community, industry, and university leaders.	*Implementing*			
5.4.E.	Promotes a rich culture that incorporates a natural use of current technologies to enhance instruction, curriculum, teaching, and learning, and STEM literacy.	*Implementing*			

5.4. STEM Education Integration

- Review the program requirements for Benchmark 5.4. STEM Integration on the previous page.

Describe how the Academy will progress along the continuum. This should include plans for:

- Students apply critical thinking, innovation and invention, to problem-solve real-world scenarios.
- Student exposure to STEM related fields and understanding of STEM disciplines in a work-based, contextual environment
- Students present/defend their learning (PBLs and capstone projects) to external experts
- Use of current technologies to enhance instruction, curriculum, teaching and learning, and STEM literacy

The Weslaco 21st Century T-STEM Academy will promote instructional strategies that challenge students to think critically, innovate and invent to solve real-world, contextual problems by ensuring that the following is in place:

Believe in our students. We will set high expectations for our students, challenge them to succeed, and believe that they will. Most students will perform at the level you expect them to. We need to trust in them to help them make informed choices about the engineering challenges, come up with creative solutions, complete complex tasks, and work together smoothly to do so.

Transfer control of the learning process to the students. Develop new roles and rules that stress student responsibility. Guide from the sidelines while keeping students on target with their direction and purpose. Staff will aim at helping them become self-sufficient learners.

Foster curiosity. Learn the art of asking open-ended questions with plenty of possible answers. Pose problems rather that answers and send students on a search for solutions. Use discrepant events to intrigue students and draw them into the problem.

Provide hands-on, experiential learning. Students will learn through reflection and doing. We will give them opportunities to actually investigate multiple possible solutions to a problem, or to solve a mystery and provide materials that teams of students can explore and manipulate.

Increase collaboration among students. Staff will actively teach teamwork skills and work with students to heighten awareness of their team behaviors and ways to interacting in the class.

Students will evolve and grow as learners. Teachers will develop their skills in facilitating (as opposed to dictating) so that students focus on learning how to think like engineers. They will embrace digital tools and technology in the classroom.

Benchmark 5: Curriculum, Instruction, and Assessment

Example Artifacts: 5.5

- Academy-developed process in place to identify STEM and content relevant vocabulary and just-in-time literature
- Plan for vertical and horizontal expectations, per grade level, of STEM vocabulary and relevant literature
- Literature- and language-rich environment which includes technical language journals, articles, periodicals, current events newspapers, online resources, webinars, and texts
- STEM-focused strategies and activities such as word walls, student journals, literature circles, mock trials, student forums, debates
- Stakeholder input into selection of STEM instructional materials student goals and reflections (literacy in STEM, 21st century skills, technology, etc.)
- Integrative instruction and instructional materials

In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.		**Developing** Investigate, Research, and Create	**Implementing** Formalize, Revise, and Publish	**Mature** Data-driven evaluation of effectiveness of program requirements	**Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance
5.5.A.	Promotes technologically proficient and scientifically literate students with highly developed academic vocabulary and STEM technical vocabulary.	*Implementing*			
5.5.B.	Graduates 21st century literate students proficient in: English, reading, speaking, writing, numeracy, arts, health, sciences, and world languages; government, civics, history, and geography; environmental science; global awareness; information, communications, and media technology; and financial, economic, business, and entrepreneurship.	*Implementing*			
5.5.C.	Selects appropriate STEM curriculum and culturally relevant instructional materials that foster widespread use of literacy strategies within the STEM curriculum.	*Implementing*			
5.5.D.	Provides opportunities for students to demonstrate the relevancy of the content through reading, writing, speaking, and presenting.	*Mature*			

5.5. Literacy

- Review the program requirements for Benchmark 5.5 Literacy on the previous page.

Describe how the Academy will progress along the continuum. This should include plans for:

- Technologically and scientifically literate students
- 21st Century skills-literate students
- STEM curriculum and culturally relevant instructional materials
- Academy literacy plan

The internet and other forms of information and communication technologies are redefining the nature of reading, writing, and communication. These forms of communication will continue to change in the years ahead, requiring continuously new literacies to successfully explore their potentials.

Educators have the responsibility to integrate these new forms of communication into the curriculum to prepare students for successful participation in a global environment.

The Weslaco 21st Century T-STEM Academy believes that students have the right to the following:

Teachers will use information and communication technologies skillfully for teaching and learning effectively

A literacy curriculum will be in place that offers opportunities to collaboratively read, share, and create content with peers from around the world

Literacy instruction will embed critical and culturally sensitive thinking into print and digital literacy practices

State reading and writing standards and assessments will be addressed

Equal access to technology for all classrooms and all students

Technology integration in the classroom will be utilized effectively.

Will incorporate Project Lead the Way curriculum

T-STEM curriculum and culturally relevant instruction will be used to foster the T-STEM curriculum

Encourage students to participate in clubs such as UIL, Robotics, DEMSA, etc.

Benchmark 5: Curriculum, Instruction, and Assessment

Example Artifacts: 5.6

- Data informs instruction, plan for gaps and extension
- Curriculum aligned with standards, STEM, industry, and higher education
- Formative, diagnostic, and summative assessments, lesson redesign
- Student artifact reflection is used to inform diagnostic tools and processes
- Pre/post tests, cumulative folders, parent conferences, parent portal, student learning logs
- Pre-assessments/ post-assessments, course offerings for interventions, grades, end of course exams, student presentations, narrative assessments, oral assessments, product based assessment
- IGPs, progress reports, student information sheets, home visits, parent conferences, PEIMS info, call logs, counseling schedule/visits
- Student designed projects, project rubrics, peer reviews, panel reviews, adult/expert reviews
- Project lists knowledge and skills, 21st century skills and levels of skill mastery; course syllabus provides list of performance-based assessments; PD for teachers on developing PBLs

In Benchmark 5, all program requirements are scored individually. There are no separate metrics. Assess the level of implementation for the program requirements below according to the standards to the right.		**Developing** Investigate, Research, and Create	**Implementing** Formalize, Revise, and Publish	**Mature** Data-driven evaluation of effectiveness of program requirements	**Role Model** Continually assesses to document successes and challenges with action plans implemented to correct deficiencies in performance
5.6.A.	Uses diagnostic, ongoing, and vertically and horizontally aligned formative and summative assessments for all students to drive instructional decisions.	*Mature*			
5.6.B.	Uses state and national standards, college and career readiness standards, industry standards, and STEM program requirements to develop common benchmark assessments.	*Implementing*			
5.6.C.	Employs student readiness assessments or diagnostics to identify and address gaps in learning.	*Mature*			
5.6.D.	Tracks and reports student progress using student information systems.	*Mature*			
5.6.E.	Uses performance-based assessments that allow students to demonstrate their understandings of STEM concepts.	*Mature*			

5.6 Assessments

- Review the program requirements for Benchmark 5.6 Assessments on the previous page.

Describe how the Academy will progress along the continuum. This should include plans for:

- diagnostic, ongoing and vertically and horizontally aligned formative and summative assessments;
- state, college and career readiness, and industry standards alongside STEM program requirements;
- student readiness assessment to address gaps;
- student information systems to track progress; and
- performance based assessments that demonstrate student understanding of STEM concepts

Benchmark assessments will be used to:

Identify students who need interventions or further instruction

Foster consistent expectations, curricular priorities, and pacing within grade level, course, and department, helping to ensure that all students have access to the same essential curriculum

Increase the consistency among team members within the school of agreed-upon criteria for student proficiency.

Promote ongoing team collaboration and culture of inquiry based on data

Provide students timely feedback regarding their current level of understanding so they can monitor their own progress and identify for themselves what they already know and what they have yet to learn

Identify students for flexible instructional groups

Identify areas for grade-level celebration of successes

Evaluate the effectiveness of instructional initiatives, enrichments, and interventions so that ineffective practices are not continued throughout the year and effective ones are maximized

Students will be tracked using district customized reports. Personal graduation plans will be reviewed periodically to ensure that students follow personal plan that address students individual needs.

District staff will work closely with campus staff to provide support for benchmarks. As per HB5 only two benchmarks will be in place for every school year.

Our program currently documents student progress every six weeks. Currently our program consists of 5 teachers. We meet regularly and discuss student progress. If we have a situation, we call parents to assist us with our goal and administrator or counselor also meets with the student to see what needs to be done to help with the situation. We currently offer an afterschool tutorial program, where students are allowed to go and complete assignments. They are also offered other afterschool tutorials such as extended day and Saturday school. We also offer all of our students a college readiness course where they get small group instruction and work on a TSI readiness program.

Another way we monitor progress is by submitting 3 week failure reports. Teachers submit an overall average of student progress. Administrator also discusses with teachers how we can work together to ensure the students are being successful. We currently are working with benchmarks and six weeks tests to measure student persistence and program completion. The administrator and counselors are meeting one to one with each student to plan and prepare for next year.

Teachers will frame actions and develop implementation plans on the basis or various data.

Collaborative action teams will be formed to ensure all students are learning equitably.

Students below grade level will receive intensive interventions before, during, after school, during advisory and on Saturdays. The teacher will assist students during their intervention sessions during class using alternate methods of instruction.

Students have the options to work with a peer tutor of their choice in English
Language arts, math, science and social studies.

Students will be assessed every six weeks to measure progress for each core content area using district’s six weeks benchmarks and teacher developed tests.

Staff will utilize the following to monitor progress and identify areas of need:

Formative Assessments-Observations, questioning, discussions, graphic organizers, visual representation, etc.

Summative Assessments- Benchmarks, state mandated exams, teacher developed exams, projects, etc.

Benchmark 6: Strategic Alliances

Program Requirements

6.2.A.	Identifies and secures key business, industry, and community partners to support STEM Academy efforts (mentorships, service learning projects, etc.).
6.2.C.	Identifies and secures key business and industry partners to provide STEM-related job shadowing, internships, and externships for students and teachers.
6.3.A	Develops a Memorandum of Understanding (MOU) for dual credit.
6.3.C	Develops partnerships to support a college going culture and to provide STEM graduates access to college support services (college trips, college entrance aid, GEAR UP and P-20 initiatives).
6.1.B	Provides opportunities to educate students/parents on STEM Academy expectations such as parental engagement, college connections, scholarship opportunities, mentorships, etc.

	Developing	**Implementing**	**Mature**	**Role Model**
6.2.A 6.2.C	Initiates a few partnerships with business, community, and industry.	Initial contact made and some support is provided by community business partners. Business and industry relationships are limited to onsite mentoring activities and some minor financial support.	Partnership with business and industry is formalized via established agreements. Outcomes and expectations are concrete and regularly reviewed. Partnership is evident by two-way communication of goals and vision as to what the STEM program provides.	Each major academic area is sponsored by corporate or community partners. Industry representation is a key component of the STEM strategic planning process. Integration of Academy students in business and community activities is visible.
6.3.A 6.3.C	Initial contact made and some support is provided by higher education organizations. Some courses are available to enhance STEM curriculum integration.	Develops Higher Ed connections to facilitate MOUs, crosswalk plans, teacher mentors, and externships.	Partnerships and MOUs with higher education communities are an integral component of Academy delivery model.	College credit is given to STEM students upon completion of academic work sanctioned by accredited colleges. Admission rates for STEM students to IHE exceed the normalized rates for all students within the sponsor school system.
6.1.B	Minimal strategic communications with parents and families.	Regularly scheduled distribution of communications is planned and presented to key stakeholder groups. *And meets criteria from Developing.*	Strategic communications are timely and are developed ad hoc as conditions warrant. Key messages are presented by leadership emphasizing the importance of the communication to the intended audiences, via community town halls, PTO meetings, advisory board meetings, and school board presentations. *And meets criteria from Developing and Implementing.*	Real time communications are evident via communications technologies such as websites, newsletter articles, and media presentations using the community's public service forums, (public television and radio). Leadership is easily accessible and continuously engages partnerships with stakeholders in community and student families. *And meets criteria from Developing, Implementing, and Mature.*

Benchmark 6: Strategic Alliances

- Review the program requirements for Benchmark 6 above.

Describe how these strategic alliances 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.

South Texas College has been a partner with Weslaco Independent School District for numerous years. This partnership is one intended to prepare students for post-secondary education and transform the community of Weslaco. As part of its comprehensive mission. South Texas College is committed to establishing a college-going culture by changing communities and changing lives.

STC provides dual enrollment courses to eligible high school students throughout each of Weslaco's comprehensive high schools. The number of dual enrollment courses is a testament to district's commitment of bringing the best to the students who would otherwise have difficulty attending college. Through the partnership with STC, Weslaco ISD opened the Weslaco ISD opened the Weslaco Career Technical Education Early College High School in 2014-2015. This school is one of 5 guidance and support to ensure that this program runs smoothly and that our students successfully complete the demands of an T-STEM Academy.

South Texas College and Weslaco ISD have made significant commitments to help students reach their full potential. Our mission is aligned to the state's intentions of developing a college-going culture as well as affecting systemic change within our comprehensive high schools. We work closely to increase the number of students participating in dual enrollment programs. The STC department chairs have provided training to T-STEM Academy students on college core curriculum requirements and degrees offered. The STC staff conducts registration to offer the students awareness on college registration processes. STC staff have helped coordinate field trips, so that students can have first-hand experiences with college courses and the college going culture.

STC will continue to provide support and work collaboratively with district staff to ensure that our students successfully complete the requirements to graduate with an Associate's Degree.

Weslaco ISD works closely with businesses in the community and city leaders. We all work towards a common goal, which is to educate students of this community and make them productive citizens. Our Career Technical Education program currently has multiple agreements with the business sector. These agreements provide career opportunities for our students. Students are able to have hands –on experiences in careers of their choice. We are also working on an externship program for our teachers. This will provide teachers with opportunities to participate in career hands-on type trainings and use those experiences in the classroom.

Benchmark 7: Assurances

The following document must be attached in order for the T-STEM Designation application to be submitted.

Official signature: Official signature of a district or charter official authorized by the local board to bind the applicant organization in a legally binding contractual agreement.

View Document

Dual Credit MOU: The district or CMO provides assurance that a Memorandum of Understanding (MOU) with an Institution of Higher Education that defines the dual credit agreement is current (for the 2016-2017 school year). The MOU must be signed by all parties and ensure that sufficient detail are included and is on file at the T-STEM Academy. The executed IHE MOU for dual credit must be available for review by TEA upon request.

☑ Assurance Provided

If the T-STEM Academy is only providing AP coursework, list the AP courses that will be taught in the 2016-2017 school year.

Professional Development Plan: The T-STEM Academy applying for designation, provides assurance that a Professional Development Plan detailing the types, frequency, the provider of STEM professional development to be provided during the 2016-2017 school year, and is on file at the T-STEM Academy. The professional development plan must be available for review by TEA upon request.

☑ Assurance Provided

Business Agreement: The T-STEM Academy applying for designation, provides assurance that a minimum of one business agreement is current (for the 2016-2017 school year), signed by all parties, provides sufficient detail regarding the role of each party, (which allows students to participate in internship programs, capstone projects, or conduct field work) and is on file at the T-STEM Academy. The business agreement must be available for review by TEA upon request.

☑ Assurance Provided

2016-2017 Master Schedule: The T-STEM Academy applying for designation, provides assurance that the proposed master schedule, demonstrating a commitment to STEM education, rigorous coursework including Dual Credit, AP, or IB courses, and a vertically and horizontally aligned curriculum is on file at the T-STEM Academy. The 2016-2017 master schedule must be available for review by TEA upon request.

☑ Assurance Provided