

Nikola Tesla STEM High School

School Improvement Plan

Annual Update: 2024-25

This school improvement plan meets the requirements of WAC 180-16-220 and WAC 180-105-020.¹

SCHOOL OVERVIEW

Description: Tesla STEM High School is a science, technology, engineering, and mathematics high school that uses problem-based learning to prepare students for future STEM professions. Students conduct research in STEM Lab Concentrations, investigate real world problems, and bring research and debate into the equation while working towards viable resolutions. Students enroll in, on average, six science courses and four math courses for the duration of their high school years. Engineering and Technology are integrated into all grade level classes throughout a student’s four years at Tesla STEM.

During the first two years of a student’s experience at STEM, students are immersed in an integrated Science, Engineering, and Humanities sequence where the focus is on the students’ development of multiple skills, including conducting authentic research, working with primary source documents, developing scientific investigations, understanding and applying the engineering design process, collaboratively working in the Problem-Based Learning environment, developing digital literacy, and expanding critical thinking skills. As a critical component in STEM education, students work in a STEM Lab Concentration and/or STEM Pathway in their junior and senior years, conducting inquiry and research, exploring questions of their own, and championing their own ideas to the level of publication and/or production. The STEM Lab Concentrations and STEM Pathways continue to address the goals of the *Grand Challenges for Engineering* to support a bright and sustainable future on a global scale.

Mission Statement: *Each student will graduate prepared to lead a rewarding, responsible life as a contributing member of our community and greater society.*

2024-25 PRIORITIES AT A GLANCE

Priority	Priority Area	Focus Grade Level(s) and/or Student Group(s)	Desired Outcome
1	English Language Arts/Literacy	11	By the end of the year, our students will earn a mean score of 4 or higher on the AP exam Synthesis Essay.
2	Mathematics	9-12	By the end of the year, our students will earn a mean score of 4 or higher on AP style free response and multiple-choice justification problems.
3	Social and Emotional	9-12	Improve students’ sense of belonging as measured through Panorama survey data.
4	Attendance	9-12	Identify and support students that are at risk of being chronically absent (absent for 10% or more days of the school year).

CONTINUOUS IMPROVEMENT PRIORITIES

¹ LWSD School Board Approval on <insert date>

Our target is that all students and student groups are improving, with all gaps closing, each year. The following priorities have been set to guide us in achieving this.

Priority #1											
Priority Area	English Language Arts/Literacy										
Focus Area	AP Synthesis Essay										
Focus Grade Level(s) and/or Student Group(s)	11 th Grade										
Desired Outcome	By the end of the year, our students will earn a mean score of 4 or higher on the AP exam Synthesis Essay.										
Alignment with District Strategic Initiatives	MTSS										
Data and Rationale Supporting Focus Area	The 2024 AP scores showed that the mean of the Synthesis essay in WA was 3.9 and global was 3.7. The mean for Tesla STEM was 4.48. We are already high achievers in this category but would like to set a goal of maintaining a mean of 4 or higher. There should not be an assumption that our high mean score is easily maintained.										
Strategy to Address Priority	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Action</th> <th style="width: 50%;">Measure of Fidelity of Implementation</th> </tr> </thead> <tbody> <tr> <td>Explicit Teaching of Exemplar Essays</td> <td>Class discussion about distinctions between different levels of proficiency</td> </tr> <tr> <td>5 Practice Essays</td> <td>Assigned in Teams</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Action	Measure of Fidelity of Implementation	Explicit Teaching of Exemplar Essays	Class discussion about distinctions between different levels of proficiency	5 Practice Essays	Assigned in Teams				
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Timeline for Focus	Fall, 2024 - Spring, 2025										
Method(s) to Monitor Progress	The AP scores will help determine our success in teaching students to take information from a range of sources and create a consistent, articulate and appropriate argument that addresses the question. This ELA skill supports STEM courses and is a requirement in achieving STEM literacy.										

Priority #2

Priority Area	Mathematics	
Focus Area	Mathematical Practice of Justification	
Focus Grade Level(s) and/or Student Group(s)	9-12	
Desired Outcome	By the end of the year, our students will earn a mean score of 4 or higher on AP style free response and multiple-choice justification problems.	
Alignment with District Strategic Initiatives	MTSS	
Data and Rationale Supporting Focus Area	After reviewing our AP test results from last year and in-class assessments, we identified the mathematical practice of justification as an area that our students could benefit from extra focused instruction.	
Strategy to Address Priority	Action	Measure of Fidelity of Implementation
	Scoring free response questions with rubric	Class discussions about the distinctions between different levels of proficiency when communicating reasoning
	Formative Assessments	Students given problems requiring explanatory work to justify solutions and given multiple opportunities to distinguish the proper inference method
Timeline for Focus	Fall, 2024 - Spring, 2025	
Method(s) to Monitor Progress	We will gather data throughout the year to monitor our progress toward raising the percentage of students scoring above standard on justification problems and AP style free response questions	

Priority #3

Priority Area	Social and Emotional	
Focus Area	Student Focus Groups	
Focus Grade Level(s) and/or Student Group(s)	9-12	
Desired Outcome	Improve students' sense of belonging as measured through Panorama survey data.	
Alignment with District Strategic Initiatives	Inclusion	
Data and Rationale Supporting Focus Area	We are building on our efforts from last year's female focus groups. After analyzing our Panorama survey data, student GPAs, and attendance records, we identified a subgroup of female students who indicated feelings of lack of belonging and academic struggles. Through small group discussion and continued survey data, it became clear that we needed to expand our efforts to run mixed gender focus groups this year to better impact the culture for all students throughout the school. Then, we will further expand to provide school-wide, student-led presentations and discussions based on what we learn in the focus groups.	
Strategy to Address Priority	Action	Measure of Fidelity of Implementation
	Student Focus Group Meetings	Focus groups organized by administrators and the school psychologist to gather student input on strengths and weaknesses of our school culture and generate student identified strategies to build our culture of inclusion.
	Intervention Group	Our counselors will provide an intervention group with female students with lower Panorama sense of belonging scores, tracking data to measure its impact.
	Staff Development on Equity, Inclusion, and MTSS	Full staff participation in building-wide professional development.
	Student Led Equity Group Activities	Analyzing feedback from students and staff about the impacts on school culture resulting from small group activities.
Timeline for Focus	Fall, 2023 - Spring, 2025	
Method(s) to Monitor Progress	We will track students' Panorama survey data, focus group data, and intervention group data to monitor the impact of our interventions.	

Priority #4

Priority Area	Attendance	
Focus Area	Improve Student Attendance	
Focus Grade Level(s) and/or Student Group(s)	9-12	
Desired Outcome	Identify and support students that are at risk of being chronically absent (absent for 10% or more days of the school year).	
Alignment with District Strategic Initiatives	MTSS	
Data and Rationale Supporting Focus Area	Student attendance has become a concern at the state, district, and building level over the last several years. After reviewing our attendance data from last year, we identified 6 focus students with unexcused chronic absences of 10% or more for the year. While this is only 1% of our population, the number of students significantly rises when all types of absences (excused and unexcused) are included. This year, our priority is addressing this larger group by identifying them earlier and connecting them with the right resources to improve their attendance.	
Strategy to Address Priority	Action	Measure of Fidelity of Implementation
	Updates to student handbook	Stakeholders provided input on changes to our Parent & Student Handbook that clearly outline our attendance policy and expectations as well as consequences for excessive absences. Our Parent & Student Handbook was reviewed with students in 7 th period classes and distributed to all students and families in September 2024.
	Principal ParentSquare Communications	Utilize Principal ParentSquare messages to remind students and families of the important work we are doing regarding student attendance and how families can support our scholars.
	Monthly Attendance Reports	Monitoring progress helps us determine the efficacy of our efforts and identify at risk students before they reach the level of chronically absent.
	Counselor/Administrator meetings	Hold individual meetings with students and families at risk of chronic absenteeism to understand and address specific barriers to regular attendance.
Timeline for Focus	Fall, 2024 - Spring, 2025	

Method(s) to Monitor Progress	Throughout the year we will be reviewing our attendance records and monitoring the strategies to support student attendance.
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STATE ASSESSMENT PARTICIPATION

The Every Student Succeeds Act (ESSA) requires that all schools meet at least a 95% participation rate for state assessments for all students as well as each subgroup. Schools that fall below this threshold in any group must include goals and actions the school will take to ensure 95% of students participate.

Strategies the school is using to meet participation requirements include:

- Common language on the importance of state testing is used by all schools in the district.
- Staff receive training on the administration of state assessments, including the use of supports and accommodations to ensure all students have an equal opportunity to demonstrate learning.
- Make-up testing is provided for students that miss the school’s date.
- Test completion lists are monitored by both school testing coordinators and district personnel.
- The district is using the recommended refusal procedures and form developed by the Washington Educational Research Association.

COMMUNITY ENGAGEMENT PLAN

As a district of doers, learners, and believers, our “why” drives us. We do this all-important work because we want all of our students to have equitable and quality experiences in the Lake Washington School District in order to ensure that they get to choose their futures instead of their circumstances choosing them.

Research has consistently shown that family and community engagement is key to increasing the academic success and positive connections that students have at school, especially students from groups that are demographically under-represented or those historically marginalized. Therefore, it is imperative that we consistently plan and implement strategies to engage our families and school communities in authentic and culturally appropriate approaches.

To ensure that families have the support that they need to assist their children, OSPI requires that school districts have a family engagement policy in place that applies to all families.² The specific strategy our school is using to involve and inform the community of the School Improvement Plan is as follows:

Strategy to Engage Students, Families, Parents and Community Members in the development of the SIP	Action	Timeline
	PTSA Co-Chair/Administrative Team Meetings	Monthly
	Student Focus Group Feedback Sessions	Quarterly
	Coffee with the Principal	Quarterly

² LWSD’s policy is found at: <https://go.boarddocs.com/wa/lwsd/Board.nsf/goto?open&id=BSCTAP76757A>

Strategy to Inform Students, Families, Parents and Community Members of the SIP	Action	Timeline
	PTSA General Meetings	Quarterly
	PTSA Newsletter	Weekly
	Principal ParentSquare Messages	Biweekly
	Equity Team Meetings	Biweekly