

Nikola Tesla STEM High School

School Improvement Plan

Annual Update: 2023-24

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.*

2023-24 PRIORITIES AT A GLANCE

Priority	Priority Area	Focus Grade Level(s) and/or Student Group(s)	Desired Outcome
1	English Language Arts/Literacy	9-12	Throughout the year, 90% of students will be able to construct grade level appropriate lines of reasoning across genre and media (writing, speaking, etc.)
2	Mathematics	9-12	Throughout the year, 90% of students will score above standard on the Communicating Reasoning problems related to SBA and AP style free response questions.
3	Social and Emotional	9-12	Improve students’ sense of belonging and academic performance as measured through Panorama survey data and GPA.

¹ LWSD School Board Approval on <insert date>

CONTINUOUS IMPROVEMENT PRIORITIES

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	Cognitive Strategy of Reasoning, Argument, and Proof										
Focus Grade Level(s) and/or Student Group(s)	9-12										
Desired Outcome	Throughout the year, 90% of students will be able to construct grade level appropriate lines of reasoning across genre and media (writing, speaking, etc.)										
Alignment with District Strategic Initiatives	MTSS										
Data and Rationale Supporting Focus Area	From studying David Conley’s work regarding college readiness, multiple departments found opportunities for improvement in student performance on the key cognitive strategy of reasoning, argument, and proof. In ELA, early assignments showed students had difficulty constructing well-reasoned arguments based on textual evidence to defend a point of view.										
Strategy to Address Priority	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">Action</th> <th style="width: 50%; text-align: center;">Measure of Fidelity of Implementation</th> </tr> </thead> <tbody> <tr> <td>Debate Activities</td> <td>Students scored on both team and individual rubric criteria.</td> </tr> <tr> <td>Performance Projects</td> <td>Students participate in a directorial interview where they defend acting choices made during the performance.</td> </tr> <tr> <td>Discussion of Exemplars</td> <td>Class discussion about the distinctions between different levels of proficiency.</td> </tr> <tr> <td>Notebook checks</td> <td>Scaffolding specific note taking skills and relevant vocabulary,</td> </tr> </tbody> </table>	Action	Measure of Fidelity of Implementation	Debate Activities	Students scored on both team and individual rubric criteria.	Performance Projects	Students participate in a directorial interview where they defend acting choices made during the performance.	Discussion of Exemplars	Class discussion about the distinctions between different levels of proficiency.	Notebook checks	Scaffolding specific note taking skills and relevant vocabulary,
	Action	Measure of Fidelity of Implementation									
	Debate Activities	Students scored on both team and individual rubric criteria.									
	Performance Projects	Students participate in a directorial interview where they defend acting choices made during the performance.									
	Discussion of Exemplars	Class discussion about the distinctions between different levels of proficiency.									
Notebook checks	Scaffolding specific note taking skills and relevant vocabulary,										
Timeline for Focus	Fall, 2023 - Spring, 2024										
Method(s) to Monitor Progress	Throughout the year, we will monitor students’ progress toward demonstrating well-reasoned arguments as appropriate for grade level by looking at data gathered from rubrics, class discussions, and notebook checks.										

Priority #2

Priority Area	Mathematics	
Focus Area	Cognitive Strategy of Reasoning, Argument, and Proof	
Focus Grade Level(s) and/or Student Group(s)	9-12	
Desired Outcome	Throughout the year, 90% of students will score above standard on the Communicating Reasoning problems related to SBA and AP style free response questions.	
Alignment with District Strategic Initiatives	MTSS	
Data and Rationale Supporting Focus Area	From studying David Conley’s work regarding college readiness, multiple departments found opportunities for improvement in student performance on the key cognitive strategy of reasoning, argument, and proof. In Mathematics, we observed students having difficulty answering free response questions that required students to construct a mathematical argument with appropriate levels of accuracy.	
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, 2023 - Spring, 2024	
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 Communicating Reasoning problems and AP style free response questions.	

Priority #3

Priority Area	Social and Emotional	
Focus Area	Student Focus Group	
Focus Grade Level(s) and/or Student Group(s)	10-12	
Desired Outcome	Improve students' sense of belonging and academic performance as measured through Panorama survey data and GPA.	
Alignment with District Strategic Initiatives	Inclusion	
Data and Rationale Supporting Focus Area	After analyzing our Panorama survey data, student GPAs, and attendance records, we identified a subgroup of female students that indicated feeling of lack of belonging and academic struggles.	
Strategy to Address Priority	Action	Measure of Fidelity of Implementation
	Student Focus Group Meetings	Focus group organized by administrators and counselors to gather student input on strengths and weaknesses of our school culture.
	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 to school culture resulting from the small group activities.
Timeline for Focus	Fall, 2023 - Spring, 2024	
Method(s) to Monitor Progress	We will track students' Panorama survey data and quarterly GPAs to monitor the impact of our interventions.	

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
Strategy to Inform Students, Families, Parents and Community Members of the SIP	Action	Timeline
	PTSA General Meetings	Quarterly
	PTSA Newsletter	Quarterly
	PTSA Co-Chair/ Administrative Team Meetings	Quarterly
	Principal’s ParentSquare Message	Biweekly

² LWSD’s policy is found at: <https://www.lwsd.org/about-us/policy-and-regulations/community-relations-4000/community-education-program-4265>

