

Continuous Improvement Process Plan

Tesla STEM High School

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<http://www.lwsd.org/school/stem>

2017 -
2018



Principal Cindy Duenas
Lake Washington School District
2017 - 2018

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DESCRIPTION OF SCHOOL

Provide a description of the school, its performance history, demographic make-up, academic focus, school culture focus, and parent/family/community engagement strategies.

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. A key academic feature frames 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.

Courses completed in first two years at Tesla STEM include: English Language Arts, Physics, Math, Visual and Graphic Design, Computer Science and Technology, Engineering, AP Environmental Science and AP/Honors Biology. 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.

DISTRICT PERFORMANCE TARGETS

	Indicators <i>Note: Indicators based on state assessments</i>	Baseline Performance	Current Performance 2016-17	Target Performance 2018
		District	District	District
High School Students on Track for Graduation	% of 9 th graders earning 6.0 credits	84% 2012	88.4%	92%
	% of 10 th graders accumulating 12.0 credits	74% 2012	83.6%	90%
	% of 11 th graders meeting or exceeding state standards in Literacy		87.1%	97%
	% of 11 th graders meeting or exceeding state standards in Math*		94.5%	87%
	% of 10 th graders meeting or exceeding state standards in Biology	79.4% 2012	85.5%	90%
High School Students Graduating Future Ready	% on-time graduation rate	88.6% <i>class of 2013</i>	91.7%	100% <i>class of 2018</i>
	% of 11 th and 12 th grade students enrolled in a dual credit college-level course	83.2% 2014	TBA	95% <i>class of 2018</i>
	% of graduates enrolled in post-secondary institution within 2 years of graduation	81% <i>class of 2012</i>	80% <i>class of 2015</i>	88% <i>class of 2018</i>

- Credits Earned determined by credit totals for 9th/10th grade in Skyward.
- Grade 11 Literacy based on the Smarter Balanced Assessment (SBA) and reported on the OSPI Washington State Report Card (<http://reportcard.ospi.k12.wa.us/>). Many 11th grade students opted to not take the ELA SBA test in 2015 since they had passed the HSPE exam in 10th grade. Students who did not take the test were counted as not making the standard.
- Grade 11 Math based on the % of students who had met the math state assessment graduation requirement (through SBA, EOC, or other grad alternative) at the end of the 11th grade year as noted in the CAA/CIA database.
- Grade 10 Biology based on the Biology End-of-Course (EOC) exam and reported on the OSPI Washington State Report Card (<http://reportcardospi.k12.wa.us/>).
- On-time graduation rate determined by Adjusted Cohort Graduation P210 Report.
- Dual credit college-level courses determined by CEDARS Federal Dual Credit Report using any 11th/12th grader enrolled during the school year.
- Graduates enrolled in post-secondary institution determined by the Education Research Data Center (<http://ERDC.wa.gov>)

Process to determine School Performance Targets:

The Lake Washington School District developed a strategic plan for implementation in 2013-2018. Part of the strategic plan includes Student Learning Milestones and indicators of student success. Many of the indicators are measured based on state testing results. A process was implemented to set performance targets for each indicator. For the 2014-15 school year, the state adopted the Smarter Balanced Assessment (SBA) to measure student progress in Math and English Language Arts. Due to this change, the district made adjustments to the 2018 performance targets in these areas. The performance targets were set based on the 2015 SBA results.

SCHOOL PERFORMANCE OVER TIME

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
High School Students on Track for Graduation	% of 9 th graders earning 6.0 credits	85%	93%	95%				
	% of 10 th graders accumulating 12.0 credits	75%	87%	92.5%				
	% of 11 th graders meeting or exceeding state standards in Literacy	75%	≥95%	97.2%				
	% of 11 th graders meeting or exceeding state standards in Math*	99.2%	100%	100%				
	% of 10 th graders meeting or exceeding state standards in Biology	≥95%	≥95%	92.6%				
High School Students Graduating Future Ready	% graduation rate	99.1%	97.7%	99.2%				
	% of 11 th and 12 th grade students enrolled in a dual credit college-level course	96.9%	96.9%	97.7%				
	% of graduates enrolled in post-secondary institution within 2 years of graduation	n/a	n/a	85-89%				

- Credits Earned determined by credit totals for 9th/10th grade in Skyward.
- Grade 11 Literacy based on the Smarter Balanced Assessment (SBA) and reported on the OSPI Washington State Report Card (<http://reportcard.ospi.k12.wa.us/>). Many 11th grade students opted to not take the ELA SBA test in 2015 since they had passed the HSPE exam in 10th grade. Students who did not take the test were counted as not making the standard.
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The following steps have been taken to achieve a 95% participation rate for state assessments:

- Common language on the importance of state testing is used by all schools in the district with links to the main district website. Links on the website provide access to the ReadyWA documents.
- Late start schedules have been developed to ensure students that are testing are not missing other courses.
- The district is using the recommended refusal procedures and form developed by the Washington Educational Research Association. The language of “refusal” is being used instead of “opt out.”

CIP REFLECTION: EVALUATE OUTCOMES

2016-17 CIP Goals and 2017 Outcomes:

Data

	Goal	Achievement
Literacy:	By June 2017, 97% of our students will correctly cite resources in APA format to avoid plagiarism on papers written.	By June 2017, 100% of students were able to demonstrate proficiency in citing sources using the APA format.
Math:	By February 2017, our students will improve their ability to attend to precision from 75% accuracy to 90% accuracy by clearly communicating steps, reasoning, unit of measure and conclusions when modeling grade appropriate application problems.	By May 2017, 92% of our students were able to attend to precision by clearly communicating steps, using appropriate units of measure, and justifying conclusions when modeling grade appropriate application problems.
Science:	By June 2017, 100% of Junior students will demonstrate understanding and use of the engineering design process and authentic research as outlined in the Next Generation Science Standards through participation in a mentor-based competition.	By June 2017, 100% of Juniors demonstrated their understanding of the engineering design process by participating in a mentor-based competition.
Achievement Gap:	By June 2017, students qualifying for Special Education will improve their proficiency on standardized tests in ELA from 89% to 95% by targeted assistance in ELA and Social Studies classes and RTI.	By June 2017, 100% of our students qualifying for Special Education were able to earn proficient scores on their standardized tests in ELA.
On-Track Credits:	By August 2017, our student population will increase their on-track credit completion from 93% to 95% through increased family communication about student progress, focused attention on historically	By June 2017, we were able to increase our on-track credit completion to 95% of our student population.

	difficult courses, and informing students on summer school opportunities.	
College and Career Readiness:	By June 2017, all juniors will demonstrate the 21 st century skill of collaboration by successfully participating in a group project in their signature lab.	By June 2017, 100% of juniors demonstrated the 21 st century skill of collaboration by participating in multiple group projects within their signature labs.
School Effectiveness:	By June 2017, 95% of returning faculty will take on a leadership role within the school.	By June 2017, 91% of the returning faculty took on leadership roles within the school.
Attendance and Discipline:	<p>By June 2017, absences in 1st period will decrease from 7% to 5% using parent meetings and student letters to inform and coach students and families for better attendance.</p> <p>By June 2017, we will gather data on instances of plagiarism in ELA and Social Studies to act as a base line for future interventions. This will be the first year we are tracking this data.</p>	<p>By June 2017, the number of absences in 1st period varied month to month from 4% to 7%, with our yearly average of 6%.</p> <p>During the 2016-17 school year, individual teachers monitored instances of plagiarism in ELA and Social Studies.</p>

Narrative Reflection:

Narrative Reflection	
Process:	We started the year by reviewing the previous year’s data during our August LEAP time. We had staff identify common trends they observed discussed areas of focus for the building. Throughout the year, we reviewed our progress toward our building goals at our staff meetings. We also scheduled meetings throughout the year for departments to identify their annual goals and monitor progress throughout the year. Each department met a minimum of 4 times throughout the year to look at student data and evaluate progress toward their goal.
Literacy:	Our goal in Literacy was to improve the students’ ability to correctly cite their sources. Our ELA and Social Studies teachers met on a

	<p>biweekly basis to discuss this goal and design grade appropriate benchmarks for the use of APA formatting for student papers. The teachers identified students that needed additional practice and worked with smaller groups of students to focus on common needs for improvement. By the end of the year, 100% of students were able to meet grade level benchmarks for citing sources using APA formatting.</p>
Math:	<p>Our goal in the math department during the 2016-17 school year was to improve students' ability to attend to precision when modeling grade level appropriate application problems as outlined in the Common Core State Standards. Throughout the year we identified students that needed additional supports through formative assessments and scaffolded practice. We did not reach our goal of 90% proficiency by February, so the math department continued to work on the goal throughout the year. By May 2017, 92% of our students demonstrated proficiency in attending to precision by clearly communicating steps, using appropriate units of measure, and justifying conclusions when modeling grade appropriate application problems.</p>
Science:	<p>As a science department, we focused on teaching to the Next Generation Science Standards. Our primary focus was the inclusion of the engineering design process outlined in the standards. Throughout all our signature labs, students engaged in the engineering design process, where students defined problems, designed solutions, and optimized their final designs.</p>
Achievement Gap:	<p>We identified an achievement gap on ELA standardized test scores between our students qualifying for special education and our general population. Our ELA and Social Studies teachers provided targeted assistance in classes and students were given additional practice during RTI throughout the year. By the end of the year, 100% of our students qualifying for special education had passed their state standardized tests in ELA.</p>
On-Track Credits:	<p>Our counseling department and faculty did a wonderful job of tracking student progress throughout the year. They were able to inform families early in the year when students were struggling with course work and help families create student support structures both inside and outside of school hours. As the year progressed, plans were also made to help students with credit retrieval over the summer. By the end of June 2017, 95% of our students were on track with their total number of credits. We have seen the biggest improvement in our Freshman classes. Over the last 3 years, we have gone from 22 to 12 to 8 Freshman having less than 6 credits at the end of the year.</p>

College and Career Readiness:	As a school, we put an emphasis on improving students’ ability to successfully collaborate on projects through instruction on tools available for organizing and collecting group work as well as strategies for dividing up tasks. Students participated in group projects at all grade levels, and 100% of juniors successfully participated in multiple group projects within our signature labs.
School Effectiveness:	Throughout the year, our staff was encouraged to take on leadership roles around the school. Of the 22 returning faculty, 20 of them took on leadership roles. Although we did not arrive at our goal of 95%, we made significant progress by reaching 91%.
Attendance and Discipline	<p>At the beginning of the 2016-17 school year, we identified attendance issues with some of our students. In particular, several students were missing 1st period. As a staff, we made it a focus to emphasize the importance of regular attendance. Teachers, counselors, and administrators communicated with families throughout the year. We were able to reduce 1st period absences throughout the year from 7% to an average of 6%.</p> <p>During the 2016-17 school year, individual teachers monitored and recorded instances of plagiarism in their own classes. We will build upon this data in the 2017-18 school year to track trends across the school.</p>

ANNUAL SCHOOL GOALS

2017-18 Annual School Goals:

SMART Goals	
Literacy:	By June 2018, 100% of our students will improve their ability and comfort to make productive contributions to classroom discussions and express their personal voice during presentations.
Math:	By June 2018, 100% of our students will successfully monitor their understanding of our new mathematics curriculum through equitable strategies designed to provide students with individualized instruction.
Science:	By June 2018, 100% of Junior students will demonstrate understanding and use of the engineering design process and authentic research as outlined in the Next Generation Science Standards through participation in a mentor-based competition.
Achievement Gap	By June 2018, our Freshmen qualifying for Special Education/504 will increase from 66% to 80% on-track for credits.

On-Track Credits:	By August 2018, our student population will increase their on-track credit completion from 95% to 96% through increased family communication about student progress, focused attention on historically difficult courses, and informing students on summer school opportunities.
College and Career Readiness	By June 2018, 100% of Junior students will demonstrate the 21 st century skill of collaboration by successfully participating in a group project in their signature lab.
School Effectiveness:	By June 2018, 95% of returning faculty will take on a leadership role within the school.
Attendance:	By June 2018, absences in 1 st period will decrease from 6% to 5% using parent meetings and student letters to inform and coach students and families for better attendance
Discipline:	By June 2018, we will continue to gather data on instances of plagiarism in our courses and design intervention strategies to reduce the number of instances.

Annual School Goals: Academic

The staff looked at student data in department groups (ELA/Social Studies, Math, Science) to identify areas of focus for the year. Each department group selected these goals after finding that we still had room to grow in these areas. We are ensuring all students are receiving challenge and rigor by differentiating our stem-focused curriculum based on student interest and ability. To meet department goals, teachers are meeting 3 times a year to discuss teaching strategies, classroom activities and assessing student data to ensure students receive necessary interventions. The staff will meet 3 times throughout the year to internally review data and assess progress toward our goals.

Annual School Goals: Achievement Gap

After reviewing our data on state testing, credits, and attendance, we looked at how different subsets of our students performed in each category. Our data was very homogeneous between groups. The one area that did stand out was credit completion for our freshmen qualifying for special education and 504 accommodations. Students will receive interventions through a combination of SDI, homework club, peer tutoring, or supports built into their general education classes. We will monitor the progress of our students through monthly grade checks and quarterly progress reports.

Annual School Goals: On-Track Credits

This goal was chosen to help our students achieve Core24. We will monitor progress throughout the year with quarterly progress reports and summer school records at the start of next year.

Annual School Goals: College and Career Readiness

In order to prepare students for college and career, we wanted to pick a goal related to a 21st century skill. In all grades, we have been working on fostering a collaborative environment. However, we wanted to quantify students' abilities to successfully collaborate with their peers before their senior year. We will monitor student progress

throughout the year by looking at student data related to successful collaboration techniques students use during group projects.

Annual School Goals: School Effectiveness

Last year we made great strides to ensure that our staff had the opportunity to take on a leadership role within the school. However, we did not quite make our goal of 95%. Therefore, we wanted to continue to find areas for staff to demonstrate their leadership abilities. We will monitor progress throughout the year by administration check-ins and leadership meetings.

Annual School Goals: Attendance

For our attendance goal, we have noticed a higher rate of absences in 1st period compared to other courses and that it is affecting student performance in those classes compared to other periods. We will monitor progress throughout the year by looking at instances of absence in 1st period relative to other classes.

Annual School Goals: Discipline

For our discipline goal, we have noticed that plagiarism is an issue in our classes, but we have not quantified how big of an issue it is. We will use this year to gather data to assess the extent of the problem. We will monitor progress throughout the year by collecting data on the number of cases of plagiarism in ELA and Social Studies classes.

INSTRUCTIONAL STRATEGIES AND REQUIRED RESOURCES

Goal Area	Literacy
<i>Strategy to support goals</i>	Identify underlining issues that prevent students from successfully conveying their voice and identity, especially for our 504 students Bi-weekly PLC meetings using the cycles of inquiry protocol to improve instructional practices Monitoring data on students' preparation and level of Depth of Knowledge for class discussions and presentations Collect data on number of instances students contribute during class discussions.
<i>Professional Learning needed</i>	None needed at this time
<i>Resources needed</i>	None needed at this time
<i>Responsible individual or team</i>	Humanities Department

Goal Area	Math
<i>Strategy to support goals</i>	Assigning online skill practice using Webassign/Big Ideas databases which provided students with instant feedback on understanding and links to explanations of the skill Providing students with adaptive assessments to use as individualized study plans Providing students with links to access digital tutorials for each unit Surveying students throughout the year about which tools from our new curriculum are working and how they prefer to use them.

<i>Professional Learning needed</i>	Math teachers will attend district training on implementing the new curriculum and using its supplied tools.
<i>Resources needed</i>	None needed at this time
<i>Responsible individual or team</i>	Math Department

Goal Area	Science
<i>Strategy to support goals</i>	Detailed research plan instructions given by teacher Guidance on finding a mentor Instruction on scientific experiment or engineering design process Minimum of bi-monthly check-ins during competition process Teacher office hours for extra help
<i>Professional Learning needed</i>	Guidance on designing competitions into classroom curriculum
<i>Resources needed</i>	None needed at this time
<i>Responsible individual or team</i>	Science Department

Goal Area	Attendance
<i>Strategy to support goals</i>	Regular review of school attendance with emphasis on discrepancies between 1 st period and other classes throughout the day Teacher initiated communication regarding repeated missed attendance Counselor follow-up communication regarding continued missed attendance
<i>Professional Learning needed</i>	None needed at this time
<i>Resources needed</i>	None needed at this time
<i>Responsible individual or team</i>	Teaching staff, academic counselors, office managers and administrators.

PARENT, FAMILY, AND COMMUNITY INVOLVEMENT

Strategies to involve parents, families, and the community in the Continuous Improvement Process

PTSA Co-Chair/Leadership Meetings

Strategies to inform parents, families, and the community about the Continuous Improvement Process

PTSA General meetings, PTSA Newsletter, PTSA Co-Chair/Leadership Meetings, CIP posted on the Tesla STEM website.