

# Continuous Improvement Process Plan

## Tesla STEM High School

4301 228<sup>th</sup> Avenue NE  
Redmond, WA 98053

425-936-2770

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

2016 -  
2017



Principal Cindy Duenas  
Lake Washington School District  
2016 - 2017

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## DESCRIPTION OF SCHOOL

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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.

## 2015-2018 PERFORMANCE TARGETS

	Indicators <i>Note: Indicators based on state assessments</i>	Baseline Performance		Current Performance 2015-16		Target Performance 2018	
		District	School 2014-15	District	School	District	School
<b>High School Students on Track for Graduation</b>	% of 9 <sup>th</sup> graders earning 6.0 credits	84% 2012	85%	88%	93%	92%	
	% of 10 <sup>th</sup> graders accumulating 12.0 credits	74% 2012	75%	81%	87%	90%	
	% of 11 <sup>th</sup> graders meeting or exceeding state standards in Literacy		75%	90.7%	≥95%	97%	
	% of 11 <sup>th</sup> graders meeting or exceeding state standards in Math*		99.2%	95.3%	100%	87%	
	% of 10 <sup>th</sup> graders meeting or exceeding state standards in Biology	79% 2012	≥95%	87.0%	≥95%	90%	
<b>High School Students Graduating Future Ready</b>	% on-time graduation rate	89% <i>class of 2013</i>	99.1%	91.0%	97.7%	100% <i>class of 2018</i>	
	% of 11 <sup>th</sup> and 12 <sup>th</sup> grade students enrolled in a dual credit college-level course	91% 2014	96.9%	85.2%	96.9%	95% <i>class of 2018</i>	
	% of graduates enrolled in post-secondary institution within 2 years of graduation	81% <i>class of 2012</i>	n/a	80% <i>class of 2014</i>	n/a	88% <i>class of 2018</i>	

- Credits Earned determined by credit totals for 9<sup>th</sup>/10<sup>th</sup> 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 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 11<sup>th</sup> 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 11<sup>th</sup>/12<sup>th</sup> 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:

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
<b>High School Students on Track for Graduation</b>	% of 9 <sup>th</sup> graders earning 6.0 credits	85%	93%					
	% of 10 <sup>th</sup> graders accumulating 12.0 credits	75%	87%					
	% of 11 <sup>th</sup> graders meeting or exceeding state standards in Literacy	75%	≥95%					
	% of 11 <sup>th</sup> graders meeting or exceeding state standards in Math*	99.2%	100%					
	% of 10 <sup>th</sup> graders meeting or exceeding state standards in Biology	≥95%	≥95%					
<b>High School Students Graduating Future Ready</b>	% graduation rate	99.1%	97.7%					
	% of 11 <sup>th</sup> and 12 <sup>th</sup> grade students enrolled in a dual credit college-level course	96.9%	96.9%					
	% of graduates enrolled in post-secondary institution within 2 years of graduation	n/a	n/a					

- Credits Earned determined by credit totals for 9<sup>th</sup>/10<sup>th</sup> 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 11<sup>th</sup> 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 11<sup>th</sup>/12<sup>th</sup> grader enrolled during the school year.
- Graduates enrolled in post-secondary institution determined by the Education Research Data Center (<http://ERDC.wa.gov>)

**CIP REFLECTION: EVALUATE OUTCOMES**

**2015-16 CIP Goals and 2016 Outcomes:**

*Data*

	<b>Goal</b>	<b>Achievement</b>
<b>Literacy:</b>	By June 2016, 100% of Juniors will be proficient on SBAC ELA by targeted instruction on reading informational text in ELA and Social Studies classes.	<b>By June 2016, more than 99% of our Juniors were proficient on the SBAC ELA, and 100% had met or exceeded the state standard in literacy.</b>
<b>Math:</b>	By June 2016, our students will improve their ability to model grade appropriate real-world data using applicable mathematical models from 75% accuracy to 95% accuracy.	<b>By June 2016, 97% of our students were able to identify and use an appropriate model when working with real-world data. However, we saw that 10% of our students had trouble with attending to precision in their work or communicating their thinking.</b>
<b>Science:</b>	By June 2016, 100% of Junior students will demonstrate understanding and use of the engineering design process as outlined in the Next Generation Science Standards through participation in a mentor-based competition.	<b>By June 2016, 100% of Juniors demonstrated their understanding of the engineering design process by participating in a mentor-based competition.</b>
<b>Achievement Gap:</b>	By June 2016, students qualifying for Special Education will improve their proficiency on standardized tests in ELA from 90% to 95% by targeted assistance in ELA and Social Studies classes and RTI	<b>By June 2016, 97% of our students qualifying for Special Education were proficient on their standardized tests in ELA.</b>
<b>On-Track Credits:</b>	By August 2016, our student population will increase their on-track credit completion from 87% to 90% through increased family communication about student progress, focused attention on historically difficult courses, and informing	<b>By the end of August 93% of our students were on track with their number of credits earned.</b>

	students on summer school opportunities.	
<b>College and Career Readiness:</b>	By June 2016, all juniors will demonstrate the 21 <sup>st</sup> century skill of collaboration by successfully participating in a group project in their signature lab.	<b>By June 2016, 100% of juniors demonstrated the 21<sup>st</sup> century skill of collaboration by participating in multiple group projects within their signature labs.</b>
<b>School Effectiveness:</b>	Click here to enter text.	Click here to enter text.
<b>Attendance and Discipline:</b>	<p>By June 2016, absences in 1<sup>st</sup> 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 2016, 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><b>By June 2016, our number of absences in 1<sup>st</sup> period varied month to month from 3% to 7%, with our yearly average of 5.5%.</b></p> <p><b>During the 2015-16 school year, individual teachers monitored instances of plagiarism.</b></p>

*Narrative Reflection:*

<b>Narrative Reflection</b>	
<b>Process:</b>	Lake Washington School District has a history of high student participation on all state and local assessments. A significant cause of low participation at the secondary level is due to students previously meeting their state assessment graduation requirements. Regardless, to ensure that all students understand their obligation for participating in state assessments, the district and schools communicate with students and families regarding the importance of the assessments and the assessment calendar. The district website provides links to state assessment information.
<b>Literacy:</b>	We were able to get 100% of our junior to meet or exceed standard on the state standards for literacy. Our ELA and Social Studies teachers focused on instructional strategies related to reading informational text. Students were identified that needed additional resources and practice to successfully extract the important content from

	informational text. In addition to whole class instruction, teachers worked with smaller groups of students to focus on common needs for improvement.
<b>Math:</b>	Our goal in the math department during the 2015-16 school year was to improve students' ability to model grade appropriate real-world data using applicable mathematical models. Throughout the year we identified students that needed additional supports through formative assessments and scaffolded practice. By the end of the year, 97% of our students were consistently selecting the appropriate mathematical models.
<b>Science:</b>	As a science department, we focused on teaching to the Next Generation Science Standards. Of 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.
<b>Achievement Gap:</b>	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, 97% of our students qualifying for special education had passed their state standardized tests in ELA.
<b>On-Track Credits:</b>	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 August 2016, 94% of our students were on track with their total number of credits.
<b>College and Career Readiness:</b>	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.
<b>School Effectiveness:</b>	By June 2017, all faculty will make progress in the area of providing leadership, moving from 82% to 95% of the staff.
<b>Attendance and Discipline</b>	At the beginning of the 2015-16 school year, we identified attendance issues with some of our students. In particular, several students were missing 1 <sup>st</sup> period. As a staff, we made it a focus to emphasize the importance of regular attendance. Teachers, counselors, and

	<p>administrators communicated with families throughout the year. We were able to reduce 1<sup>st</sup> period absences throughout the year from the 7% to an average of 5.5%.</p> <p>During the 2015-16 school year, individual teachers monitored and recorded instances of plagiarism in their own classes. We will build upon this data in the 2016-17 school year to track trends across the school.</p>
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## ANNUAL SCHOOL GOALS

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### 2016-17 Annual School Goals:

SMART Goals	
<b>Literacy:</b>	By June 2017, 97% of our students will correctly site resources in APA format to avoid plagiarism on papers written.
<b>Math:</b>	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.
<b>Science:</b>	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.
<b>Achievement Gap</b>	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.
<b>On-Track Credits:</b>	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 difficult courses, and informing students on summer school opportunities.
<b>College and Career Readiness</b>	By June 2017, all juniors will demonstrate the 21 <sup>st</sup> century skill of collaboration by successfully participating in a group project in their signature lab.
<b>School Effectiveness:</b>	By June 2017, 95% of returning faculty will take on a leadership role in an area of STEM interest to be started this year and continued and refined next year.
<b>Attendance:</b>	By June 2017, absences in 1 <sup>st</sup> period will decrease from 7% to 5% using parent meetings and student letters to inform and coach students and families for better attendance.

**Discipline:**

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.

### Annual School Goals: Academic

1. Describe the process the school used to determine the annual school goals
  - The staff looked at student data in department groups (ELA/Social Studies, Math, Science) to identify areas of focus for the year.
2. Describe why these goals were selected
  - Each department group selected these goals after finding that we still had room to grow in these areas.
3. How are you ensuring all students are receiving challenge and rigor
  - We are ensuring all students are receiving challenge and rigor by differentiating our stem-focused curriculum based on student interest and ability.
4. How are you ensuring students receive necessary interventions
  - 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.
5. Describe how you will progress monitor your Academic Annual School Goals
  - The staff will meet 3 times throughout the year to internally review data and assess progress toward our goals.

### Annual School Goals: On-Track Credits

1. Describe why you selected your goal
  - This goal was chosen to help our student achieve Core24.
2. Describe how you will progress monitor your goals throughout the school year
  - 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

1. Describe why you selected your goal
  - In order to prepare students for college and career, we wanted to pick a goal related to a 21<sup>st</sup> century skill. In all grades, we have been working on fostering a collaborative environment. However, we wanted to quantify students' ability to successfully collaborate with their peers before their senior year.
2. Describe how you will progress monitor your goals throughout the school 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

STEM faculty all need to lead a segment of our All In STEM Literacy goal. Faculty with lead positions enrich the program and build on student success.

### Annual School Goals: Attendance

1. Describe why you selected your focus on attendance
  - For our attendance goal, we have noticed a higher rate of absences in 1<sup>st</sup> period compared to other courses and that it is affecting student performance in those classes compared to other periods.
2. Describe how you will progress monitor each goal
  - We will monitor progress throughout the year by looking at instances of absence in 1<sup>st</sup> period relative to other classes

### Annual School Goals: Discipline

1. Describe why you selected your focus on 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.
2. Describe how you will progress monitor each goal
  - 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

<b>Goal Area</b>	<b>Literacy</b>
<i>Strategy to support goals</i>	Designing prompts that help students design their own research process
<i>Professional Learning needed</i>	How to create assignments that discourage plagiarism How to educate students about not plagiarizing
<i>Resources needed</i>	NCTE Conference Andrya Packer LEAP day in-service on the topic of plagiarism Book study of <i>Cheating Lessons: Learning from Academic Dishonesty</i> by James M. Long
<i>Responsible individual or team</i>	ELA and Social Studies Department

<b>Goal Area</b>	<b>Math</b>
<i>Strategy to support goals</i>	Share examples of precise mathematical communication as well as examples of common omissions. Student self-grading based on rubric. Minimum of 3 progress checks throughout the year to monitor progress Teacher office hours for extra help
<i>Professional Learning needed</i>	Click here to enter text.
<i>Resources needed</i>	Multiple data sets that can be modeled with grade-level appropriate mathematical equations
<i>Responsible individual or team</i>	Math Department

<b>Goal Area</b>	<b>Science</b>
<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 in classroom curriculum
<i>Resources needed</i>	Click here to enter text.
<i>Responsible individual or team</i>	Science Department

<b>Goal Area</b>	<b>Attendance</b>
<i>Strategy to support goals</i>	Regular review of school attendance with emphasis on discrepancies between 1 <sup>st</sup> 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>	Click here to enter text.
<i>Resources needed</i>	Click here to enter text.
<i>Responsible individual or team</i>	Teaching staff, academic counselors, office managers and administrators.

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## PARENT, FAMILY, AND COMMUNITY INVOLVEMENT

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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