

Logic Model: Teacher Leadership Summit Project Title: STEM 2.0 - Narrowing the Achievement Gap at Alice Drive Middle

Problem Statement: Although the implementation of our nationally certified STEM program has provided stakeholders with the opportunity to become STEM-minded, our data illustrates an achievement gap with some facets of our student population in that they are not gaining at the same rate as the rest of our student body.

Goal: Our goal is to narrow the achievement gap by enhancing the current level of access/choice, effectiveness, and partnerships of our STEM program for underperforming students.

<p><u>Rationale:</u> All students should be equally engaged in authentic STEM learning experiences that provide the skills, knowledge, and thinking strategies to prepare them to be innovative, creative, and systematic problem solvers in STEM fields</p>	<p><u>Inputs:</u></p> <p>Access/Choice</p> <ul style="list-style-type: none"> ● Affected Student Populations ● STEM Elective Focus Programs ● Master Schedule ● Student/Parent/Teacher Surveys ● Google Grant Funding <p>Effectiveness</p> <ul style="list-style-type: none"> ● MasteryConnect Assessment Data ● District Office Support Staff ● Teachers ● Administrators ● T2L Accountability Team ● Hawk Data Trackers ● Student/Parent/Teacher Surveys 	<p><u>Activities:</u></p> <p>Access/Choice</p> <ul style="list-style-type: none"> ● Implement a structured focus area for all STEM electives, including remediation & enrichment classes. ● Implement STEM learning opportunities in physical education (TechFit). ● Expand the offering of PLTW. ● Expand extended day learning opportunities. ● Partner with feeder high school to track ADM students as they progress. ● Explore changes in the master schedule to accommodate student choice. ● Incorporate additional STEM in the arts opportunities. <p>Effectiveness</p> <ul style="list-style-type: none"> ● Survey staff for STEM professional development needs and periodically conduct follow-up self-assessments. 	<p><u>Outputs:</u></p> <p>1 month:</p> <ul style="list-style-type: none"> ● Teacher PD needs assessment survey data ● Ongoing analysis of MC data ● Formalized next steps plan is presented & adopted by STEM Advisory Board and ILT ● SLO Pre-Conferences ● STEM Ambassador Selection <p>3 months:</p> <ul style="list-style-type: none"> ● Common syllabi for STEM elective classes ● Utilize core competencies to create an ADM STEM Learner Profile ● Start STEM Ambassador Club ● Ongoing analysis of MC data ● Student-Led Data Conferences ● Teachers gain additional STEM best practices ● STEM elective classes matched with a community/business partner. 	<p><u>Outcomes:</u></p> <p>Short Term (1 Year): There is a greater level of student engagement and empowerment in their own learning, as measured by ELEOT observations, student/parent/teacher focus groups, & pre/post KAP survey analysis.</p> <ul style="list-style-type: none"> ● Students will begin the process of engaging in the analysis and monitoring of their their own data in MasteryConnect. ● Teachers will begin the process of analyzing classroom data, analyzing student work, and developing PLCs. ● Administrators will distribute additional leadership to teachers to develop a culture of shared learning. <p>Medium Term (2 years): The achievement gap will be narrowed by 25% (2018-19).</p> <ul style="list-style-type: none"> ● Students will be actively engaged in the analysis and monitoring of their own data in MasteryConnect.
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<p>of study and work.</p>	<ul style="list-style-type: none"> ● STEM Engineering Design Process ● Interdisciplinary Units ● STEM Strategic Plan ● New Staff Members ● Content Area Standards ● Lesson Plans <p>Community Awareness/Partnerships</p> <ul style="list-style-type: none"> ● STEM Exhibitions ● STEM Outreach to Feeder Elementary & High Schools ● Hawk Builders Club ● STEM Advisory Board ● Parents 	<ul style="list-style-type: none"> ● Implement a STEM Boot Camp for all new staff to ADM. ● Continue Tech Tuesday PD. ● Collect teaching & learning baseline data using the ELEOT observation instrument. ● Expand the distributed leadership model to share best practices & strategies and capitalize on teacher expertise. ● STEM will be a standard part of a teacher's SLO GBE focus. ● Visit other Advanced STEM certified schools. ● Continue weekly professional development as offered by the instructional coach. ● Add additional STEM staff members, including an official STEM learning coach. ● Analyze data from the student pre/post KAP survey. ● Implement an assessment via MasteryConnect to measure STEM literacy (pre vs. post). ● Explore strategies to marry Rtl & STEM. <p>Community Awareness/Partnerships</p> <ul style="list-style-type: none"> ● Expand the scope of businesses, industries, and higher ed 	<ul style="list-style-type: none"> ● SLO Mid-Year Conferences ● Peer Observations ● Google Grant STEM Showcase & Field Trip <p>6 months:</p> <ul style="list-style-type: none"> ● 17-18 master schedule adopted. ● Hawk Data Room ● Host Leadership Lab ● SLO Post-Conferences ● Google Grant STEM Showcase & Field Trip ● STEM Exhibition <p>9 months:</p> <ul style="list-style-type: none"> ● Standardized assessment data will be analyzed ● Additional interdisciplinary units/common rubrics are created. 	<ul style="list-style-type: none"> ● Teachers will be actively engaged in analyzing classroom data, student work, and participating in Professional Learning Communities (PLCs). ● Changes will be seen in teacher leader roles and practices so that the lines between those who lead and teach are blurred. <p>Long Term (Beyond Two Years): The achievement gap will be steadily eliminated, increasing by 25% with each passing year.</p>
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		<p>institutions to partner with as part of the STEM Advisory Board.</p> <ul style="list-style-type: none">● Commit to one STEM exhibition a semester.● Implement STEM Ambassador Group● Each STEM class will be sponsored by a community/business partner.● Expand mentoring initiative.● Explore additional grant funding to increase STEM learning opportunities.		
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Student Impact: If we enhance the alignment and coordination of our school’s policies, practices, and partners to increase student interest, participation, and achievement in STEM, expand student access to effective STEM instruction, reduce our gap in STEM access, and build community awareness & support for STEM, then we will increase student achievement levels and reduce the achievement gap with our minority students.