Alameda Science and Technology Institute (ASTI) is located on the island community of Alameda within the greater San Francisco Bay Area. In its fourteenth year of operation, ASTI is a relatively recent but well-established addition to the Alameda Unified School District (AUSD) and represents an investment by the district in a small, unique option for its high school students. As an Early College High School (ECHS) ASTI shares a campus with the College of Alameda and ASTI students enroll as full-time community college students during their 11th and 12th grade years. This early college experience has translated into a track record of success that includes all graduates going on to pursue further college studies. In addition to earning their high school diploma, graduates routinely pursue higher goals, with 88% meeting UC 'a-g' requirements, 35% completing an Associate of Arts (AA) degree and 58% completing requirements for the Intersegmental General Education Transfer Curriculum (IGETC). In the course of their studies at Peralta Community College District campuses, ASTI students have maintained an average GPA above 3.00, with many students earning honors upon graduation. As a group, graduates have earned approximately 58 college units each during their 4 years at ASTI.

In September 2015, Secretary of Education Arne Duncan announced that ASTI was among the 335 recipients of the 2015 national Blue Ribbon Schools award. This tremendous honor is a welcome recognition of the impact that early and middle college high schools have on student performance. While we have boasted a 100% graduation rate for the past few years, the graduating class of 2015 set a new record: 94% went straight into a four year college or university, and the remaining 6% remained at community college with intent to transfer. That is a 100% college-going rate. The Blue Ribbon award recognizes our achievement as a high school, and we are very proud of our success as a college preparatory public school providing opportunity to a wide range of students.

In 2015-16, ASTI staff, students and parents performed a WASC self-study as a committee of the whole. This deep and focused inquiry and written report resulted in a full six years' accreditation until 2022 with midterm report. Our small school community is very proud of these hard-earned acknowledgements.
Wood Middle School
STEAM/Integrated Learning through Inquiry

Description of the Model
A series of events had a major impact on Wood Middle School: The dismantling of the “Academies” in 2004, declining enrollment, the frequent turn over in administration and Chipman Middle closing and reopening as a charter. The SED that were generally served by Chipman, enrolled at Wood and Wood became a Title One school in 2006. In November 2012, a meeting was held with staff and Director of Student Services focused on PI Year 2 implications and alternative governance options. The school had maintained elements of excellence. In 2007, teachers partnered with Alameda County Office of Ed and Stopwaste.org to launch the Service Learning and Waste Reduction Program (SLWRP) which continues to thrive and receive grants, awards and recognition. The Visual and Performing arts program was vibrant and maintained highly effective and quality staff. Wood Middle School partnered with Purdue University and was its first middle school in the EPICS (engineering and service learning) program. In spring 2013, five Saturday sessions were held to gather stakeholder input about the PI options. Participants included parents, community members, staff, and BOE members. Meetings focused on existing obstacles to student achievement and options for moving forward. In those meetings, the stakeholders decided to restructure the school and provide a program to prepare all subgroups with skills needed for the 21st century. The District appointed a School Reform Coach to facilitate the restructuring process.

The Teacher STEAM project at Wood Middle School supports the implementation of integrated learning frameworks which are the foundational instructional practices that have the power to transform student learning in the classroom. Wood Middle School reopened in the fall of 2014 as a STEAM school with the expectation that all teachers would complete 90 hours of integrated learning training through the Alameda County Office of Education (ACOE), based on the work of Project Zero from Harvard University. The training consists of 3 progressive courses that give teachers the tools they need to develop, write, and assess integrated curriculum utilizing proven frameworks such as Teaching for Understanding, Studio Habits of Mind (Engage and Persist, Develop Craft, Envision, Express, Observe, Reflect, Stretch and Explore, and Understand the Art World) and Making Learning Visible. Once the training was completed by teachers there was a need to create sustainable ways in which teachers can continue to thoughtfully collaborate on integrated curriculum avoiding the potential pitfall of soloing into their own classrooms. The training alone only got teachers so far in this important shift. We knew the solution was in creating dedicated time for teacher teams to meet, collaborate and build true integrated curriculum.

The vision for the teacher development project at WMS was to involve mentoring and coaching teachers as they develop and implement integrated curriculum in the classroom. Our Integrated Learning Specialist, who is also our Visual Arts teacher, with
Each year a grade level team (cohort) of teachers is released from class one full day three times throughout the year to meet with the coach to refine and reflect on curriculum and look at student work. Teams meet to assess student growth, reflect on progress and build deeper connections with the Integrated Learning Specialist (ILSP) coach. The school hosts a student led exploration of learning each trimester that is open to the entire community. Special education and elective teachers each participate in one cohort for a full year. A cycle of inquiry using reflection and goal setting create a culture that supports true collaboration amongst teachers giving them the valuable time needed to transform instruction.

Inquiry-based instruction is a student centered and teacher facilitated instructional approach that engages students in investigation and real world questions they choose within a standards based curriculum. Inquiry-based learning allows students to further develop their critical thinking and core skills in reading, math, and writing while exploring science and history. In addition, students have access to technology and the makerspace for design and research.

Inquiry-based instruction deepens traditional instruction by extending and applying the learning of students in a way that connects their interests and utilizes a variety of learning modalities.

Students are actively engaged in the process of learning and discovering multiple ways to represent their learning. Students are assessed and asked to reflect on the process as well as the problem and/or project.

Each grade level connects the learning to big ideas or “Throughlines“. The throughlines are as follows: Sixth grade- How do my choices affect me, my family and my community? Seventh grade: How do we connect to a larger world? Eighth grade: How does collaboration facilitate growth? Students move from inquiry that focuses on them, to the world and then to collaborating and making a difference in the world. For example, sixth graders researched and designed their own bike helmets and tested them by using melons and dropping them from a high ledge. Students create and video personal service announcements about why it’s irresponsible not to wear helmets. In P.E, they discussed safety tips and practice riding bikes while wearing helmets. In history, they survey students to see why or why not helmets are not worn. The learning is purposeful and stretches across disciplines. Students and staff are given time to reflect, assess, and refine the process.
Many of the design projects are completed in our makerspace or “TAD” lab which allows students to tinker and go through the design cycle of inquiry using a variety of materials. In alignment with our Service Learning Waste Reduction program, much of the material used in our TAD lab has been repurposed.

In addition to the integration of core classes, students have an opportunity to explore other areas of personal interest as they try on different identities as adolescents. Students get to choose a class each trimester ranging from golf, coding, animal care, knitting, Goggle squad, chess, gardening, architecture, and media art.

At Wood School, students’ ability to collaborate and communicate is essential. Since 25% of the students are English Language Learners, Wood’s staff took on additional professional development to ensure all students have access to the curriculum by using common supports. Core teachers are being trained in Constructing Meaning and the ELD teachers were trained in Systematic ELD. The supports including graphic organizers and language frames are utilized across disciplines to provide integration and consistency for students.

In order to not only integrate the curriculum, one of the goals of the restructuring committee was to integrate the whole child. Therefore, an advisory period held twice a week for every student is incorporated into the schedule. During the advisory periods, the curriculum is focused on character education and lifeskills. The advisory period is multi-grade and students remain with the same advisor and students for the three years to provide a sense of community. Every teacher is an advisor, which allows a smaller teacher-to -student ratio and provides an adult connection for every student.

Implementation & Monitoring of the Model

Now, at the beginning of the third year, we continue to refine our integrated units of study and throughlines based on our own learning and reflection.

Wood’s staff began implementing the STEAM/ Integrated learning through inquiry model in the 2014-2015 school year. In 2016, the staff recognized the need for a block schedule in order to provide enough time in one period for students to go deeper in their learning, research and to reflect on the process.

Since Inquiry-based learning requires students to know how to work independently, collaboratively, and with a variety of materials, we explicitly teach students
behavioral expectations and post the expectations throughout the campus. Wood has a strong Positive Behavior Intervention Support Team (PBIS) who regularly analyze data to strategically provide supports. Students that aren’t adhering to tier one behavioral expectations are referred to the COST team or Coordinated of Services Team.

In 2015, Wood was awarded the $30,000 McCarthy Dressman grant to finance additional grade level collaboration days. In 2016, a team of teachers presented at the Stuart Foundation and was awarded a $5000.00 grant for professional development. Enrollment has increased from 465 in August of 2014 to currently 520 as we compete with Charter schools and open enrollment to other public middle schools in our district.

We have found the need to continue to include, inform and educate our parents on this educational reform. In partnering with the district, we’ve provided training and communication through Parent University, PTA meetings, and in “Coffee with Cammie”, (an informal monthly meeting with the principal.) Parents were invited to assist in the process by sharing through our Career Exploration where parents share a STEM or STEAM related career with students. So far students have had engineers, scientist, physicians, bio-chemist and veterinarians to participate.

Most teachers continue to find a need to continue to grow in their own pedagogy and seek additional professional development opportunities beyond the 90 additional required hours. For the past four years, a team of staff including the principal attends the California STEM Symposium. The eighth grade team presented at the STEM Symposium 2016. The principal participates in the Principal Leadership Network through Alameda County Office of Education to collaborate with other administrators implementing integrated learning in the county. The staff read Making Thinking Visible by Ritchart, Church, and Morrison to continue to utilize engaging strategies and to further our own practice. In viewing data, we saw an increase in student engagement and yet still a gap remained within historically marginalized subgroups. In order to reach all students, we examined our lens of equity. We brought in Zaretta Hammond, a leader in the field of educational equity and also read her book entitled Culturally Responsive Teaching.

The Leadership Team is developing a rubric to monitor and to keep us focused on the essential elements of our school plan.

Results of the Model/Pupil Outcomes
Since the induction of our STEAM/Integrated Learning through Inquiry, we’ve seen an increase in our CAASPP data in English language arts and math. This data indicates that students are improving in their competency, confidence on the state assessments and their ability to critically think. According to our formative assessments thus far, we are seeing great academic improvement for all subgroups.

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<th>14-2015</th>
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<td>LA of students met or exceeded on CAASPP</td>
<td>%</td>
<td>.8%</td>
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<tr>
<td>Math of students who met or exceeded on CAASPP</td>
<td>%</td>
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In addition, we’ve seen an increase in attendance, implying students are more engaged and are taking ownership of their learning. On student said, “I appreciate being made to think, and work with my friends.” A teacher recently stated, “I’ve been here for ten years and I students thirsty to think.” Teacher attendance has also improved and we have retained all of our teaching staff despite the state’s teacher shortage.

**Attendance (% of students who attended 96% of the time as in LCAP)**

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<tr>
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<td>.32%</td>
<td>.9%</td>
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Our discipline data also implies an environment that is better conducive for learning. Not only are we integrating the curriculum, but the students as well. All students are engaged and have better access to the curriculum.

**Percent of Students Suspended**

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<th>14-2016</th>
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<td></td>
<td>5%</td>
<td>1%</td>
<td>9%</td>
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