A Shared Vision: Milton High School

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**A Shared Vision for Milton High School**

**Vision Statement**

Using the International Society for Technology Integration (ISTE) student standards and Future Ready Schools Framework as guides, Milton High School will visualize a personalized learning environment that prepares every student to succeed in the 21st Century. With that in mind, stakeholders will seek to integrate technology in the classroom in order for students to practice creativity, innovation, communication, collaboration, information fluency, critical thinking, problem-solving, and decision-making all of which are outlined in the ISTE student standards. ("ISTE Standards for Students," n.d.) In order for this vision to be successful, it is also vital and necessary to prepare for teachers to support student preparation and skills needed for the 21st century. The Future Ready Schools Framework provides us with the framework for teacher professional development including shared ownership and responsibility for professional growth, a 21st-century skill set, diverse opportunities for professional learning through technology, and broad-based participative evaluations. ("Future Ready Framework - Future Ready Schools," n.d.)

**Rationale**

During a typical day at Milton, you will see many classrooms that are employing traditional lecture based direct instruction strategies. Within these classrooms, there is little instruction that is personalized, and students are given few opportunities to create, problem-solve, or experience real world application. Our vision looks to change that through a blended learning approach with a focus on STEM fields.

 The International Association of K-12 Online Learning (INACOL) defines blended learning as a combination of the best features of traditional schooling with the advantages of online learning to deliver personalized, differentiated instruction across a group of learners. (Watson et al., 2015). Blended learning models feature elements of student control over time, pace, path, and or place, which allows for more student-centered learning experiences. It also gives teachers more time and opportunity to allow students opportunity to create, innovate, collaborate, and problem solve.

 Within many high schools (Milton included), there is a perception that classes need to be almost completely lecture-based because that is what students will need to prepare for the university level. While in some cases that may be true, the university level is beginning to change their approach because passive learning approaches are ineffective. In a study published in the Proceedings of the National Academy of Sciences, researchers looked at 225 studies on the difference between active participation and passive participation in STEM undergraduate classrooms. In general, the study found that one-third of students in traditional lecture-based classrooms failed. On average, in active learning classrooms that number decreased to one-fifth. ("Enough with the Lecturing," 2014) While there are traditional lecture-based classrooms at the university level, there are also university professors like Harvard physics professor Eric Mazur who uses interactive learning in his classroom which revolves around students teaching and discussing concepts with each other. (Lambert, 2012)

 We are also in a time of unprecedented change in business and economic practice, and in order to prepare students for the 21st century, Milton High School must adapt to those changes. In a report by President Barack Obama’s Council of Advisors on Science and Technology published in 2012, the council found that there is a need for producing, over the next decade, approximately 1 million more college graduates in STEM fields than expected under current assumptions. ("Report to the President: Engage to Excel," 2012). You can see the current need for STEM-related fields such as hardware and software engineering simply by searching the open positions at Apple and Google. Apple has over 1200 positions open in both hardware and software engineering as of July 1, 2016. In fact, that number is more than likely much higher as their website shows a statistic of 600 + as a maximum. When searching Google’s employment site for engineering, it comes back with a result saying 1 page of many. While Google and Apple are the largest examples, there are millions of other technology companies that also have the same needs. Milton wants to prepare students to fill those jobs by providing opportunities for them to learn STEM-related skills such as problem-solving, collaboration, and creativity.

 In order to prepare students for the 21st Century, Milton needs to give teachers the necessary skills and knowledge in order to implement new practices. When several Milton teachers were surveyed they were asked to rate Milton teachers on their level of skill in implementing 21st-century technology solutions and over half rated that level at a level 2. They were also asked to look at how students use technology in the classroom, and over half said they see technology solutions as consumption devices. Using the Future Ready Schools framework for professional development, Milton will work to implement personalized professional development the advocates a shared ownership and responsibility for professional growth among staff, that develops a 21st-century skill set among staff, that gives diverse opportunities, and that includes a broad participative evaluation. ("Future Ready Framework - Future Ready Schools," n.d.)

**Diversity Considerations**

While most students who enter Milton come from families who are not economically disadvantaged and without disabilities, there are 278 students who come from economically disadvantaged backgrounds and 181 students who enter Milton with some sort of disability. To address these differences in students Milton will focus on two areas: accessibility and inclusiveness. ("Governor's Office of Student Achievement Data ," n.d.)

As it stands currently, Milton High School follows a Bring Your Own Device policy when it comes to student technology solutions. There are also several computer labs that are available to supplement for students who are unable to bring a device, and two classrooms at Milton have Chromebook carts. Many students come from not economically disadvantaged backgrounds, and many of them have had families who have purchased devices such as MacBook’s for their academic use. This puts students without at a clear disadvantage, but Fulton County Schools is in the process of changing that through a 1 to 1 device initiative that will offer all students Microsoft Surfaces.

While student accessibility to devices is on it’s way to being addressed, Milton also needs to address student accessibility to online and blended content for students who may not have that advantage at home. Milton will address this by providing multiple opportunities for students to engage with classroom content both at home and during the school day, by providing information and aid on low-cost home internet options, and possibly providing mobile internet hubs that can be checked out in times of critical need.

All programs at Milton are inclusive programs, but this vision aims to improve on the inclusive nature by ensuring students with disabilities have their needs met, providing students opportunities to discover their interest, and giving opportunities to student groups who may not have had opportunities previously. For students with disabilities, Milton wants to use the full advantage of the 1 to 1 device to ensure their success and provide 21st-century opportunities. This will include developing accessibility experts on staff, and providing them with needed assistive technology. In order to allow students to discover their interest, teachers will provide students with choice in their classroom and students will get self-discovery opportunities through programs such as the school Maker Space. Milton will address specific groups needs through the participation in opportunities such as Girls Who Code when there is a perceived need.

**Stakeholder Roles**

**Principal**

The principal’s role in our shared vision consists of two things: development of the school culture and funding. Developing an environment that prepares students for the 21st century starts with the schools culture. Teachers need to be allowed to take a risk, try new things, and really find the right blended model that works for them. Teachers also need to be allowed to take leadership roles and collaborate on the things that work for them. This mean means the principal needs to establish a culture within the building that gives teachers room to do it. The principal needs to demand that not everything is seen as evaluative, and the principal needs to give teachers as much time as possible to really collaborate and share effective practices that aren’t mandated by the administration. In order for the vision to be successful, it also needs to be funded. The principal needs to tunnel as much funding as possible to giving teachers the resource that they need as well as giving them the learning opportunities to expand their practice.

**Assistant Administrators**

Assistant administrators (whether they be assistant principals, administrative assistants, or other roles) provide support. This means both support in practice and support in dealing with issues as they come up. While administrators will still have to do evaluations, they need to take an approach that these are coaching opportunities. Assistant administrators need to be consistently providing feedback that revolves around prompts such as, “What do you think about trying it this way” rather than “That is wrong.” Assistant administrators also need to be willing to collaborate with teachers. If a teacher wants to take a risk and try something new, assistant administrators will be willing to co-plan and co-teach with teachers as needed. Support also includes dealing with any classroom management issues in a fair supportive manner. When an issue arises, assistant administrators deal with the student issue in quick precise manner, and if it is a deeper classroom management issue assistant administrators approach it from a coaching point of view with an even willingness to co-plan and model effective strategies within their classroom

**Instructional Technology Coach**

In order for a blended 21st-century learning environment to be effective, Milton needs a full-time instructional technology coach who is willing to provide on-site embedded professional development. This position does not currently exist at Milton High School, but it should be added within the next few years. The instructional technology coaches role will be plan, co-teach, model, and provide what professional development is needed for staff. Successful high school professional development needs to be front-loaded and then supported within the semester. This means the instructional technology coach would hold needed training at the beginning of the semester, and they would then support and cultivate teacher ideas as the semester progresses. They would also hold “play” sessions during the semester just for teachers to try out new things and see if would be effective for each individual teachers style. The ultimate goal of the instructional technology role will be to help each teacher find the right model of blended learning that works for him or her.

**Media and Education Technology Instructor**

The Media and Education Technology Instructor's (or METI’s) role will revolve around being the key point for students to explore their interest. The METI will cultivate a collection of both analog and digital resources that let students try and experience different fields, skills, and possible professions. This will include their library-based resources, but it will also include the development of a maker space within the library. The maker space will be a placed field with both analog and technology activities that can spark a student’s interest in both STEM fields and STEM activities. They will include but not be limited to fields like robotics, coding, and circuits.

**Classroom Teacher**

 First and foremost, a classroom teacher’s role will be to take risk. Within those risk will come the innovation that prepares students for the 21st century and teaches them the skills they really need to be successful. Teachers will take those risks by developing a blended learning environment that fits their teaching style, strengths, and content areas. These environments will generally consist of multiple ways to access content as well as opportunities for students to create, problem solve, and collaborate. This could include the use of flipped style videos within the classroom, and projects that teach those real world skills and allow students to go deeper in the content. While teachers will have freedom to find their right mixes of content delivery and learning activities, all learning activities will follow the STEM design process in order to ensure student development of needed 21st century skills and ensure student learning.

**Students**

The student’s role is to explore. Students need to be given freedom to and opportunity to explore, and if they are not given that freedom and opportunity they need to be able to advocate for it. This also means that students need to be motivated to learn, and need to be willing to express if something is not working for them in a certain content area. If it is not working for them, they need to partner with the teacher to find a modality that works for them.

**Parents**

Parents need to both advocate for their student, but they also need to be understanding that a culture of risk will provide students with more opportunities in the future than a culture that is focused on grades and test scores. If a teacher is not finding the modality or learning opportunity that is right for their individual child, the parent should partner with the teacher to develop the activity that is right. This should be a partnership built on collaboration and trust rather than one built on anger and resentment because of something that may not have been perfect from the start. Parents also need to understand and approve of teaching methods that may not be what they had or may not be traditional. Above all else, parents need to be involved and supportive of the school. This could include but not be limited to funding, participation in classrooms, and staff appreciation.

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**Appendix**

How evident is a shared vision of how technology should be used in the classroom at your school?

How are technology solutions used at your school? Are they used for creation or consumption?

How empowered do you feel to make and lead changes in the classroom?

How evident is a culture of risk taking at school?

Is technology mentioned in your school strategic plan?

Does your school have a school level technology plan?

How well are most staff members informed of the schools technology plan and goals?

How well is technology funded within your school?

How equitable is technology access among your student population?

Please rate the level of skill you think your staff has in implementing 21st century technology solutions

Please rate the level of professional development you receive in 21st century learning practices.