

September 30, 2019

Jill Thompson Michigan Department of Education 608 West Allegan Street P.O. Box 30008 Lansing, MI 48909

Dear Ms. Sidel:

Enclosed please find a CD containing Contract Amendment No. 1 for FlexTech High School-Shepherd. If you have any questions, please contact me at (906) 248-8446.

Sincerely,

Maniah Wanu

Mariah Wanic Assistant Director

Cc: Holly Kilburn, CS Partners

# CONTRACT AMENDMENT NO. 1

#### BETWEEN

## BAY MILLS COMMUNITY COLLEGE BOARD OF REGENTS (AUTHORIZING BODY)

AND

<u>FLEXTECH HIGH SCHOOL – SHEPHERD</u> (PUBLIC SCHOOL ACADEMY)

#### CONTRACT AMENDMENT NO. 1 FLEXTECH HIGH SCHOOL – SHEPHERD

In accordance with Article IX of the Terms and Conditions, incorporated as part of the Contract to Charter a Public School Academy and Related Documents, issued by the BAY MILLS COMMUNITY COLLEGE BOARD OF REGENTS ("College Board") to FLEXTECH HIGH SCHOOL – SHEPHERD ("Academy") on July 1, 2018 ("Contract"), the parties agree to amend the Contract as follows:

#### A. Amend Curriculum and Add Eighth Grade for the 2019-2020 Academic School Year.

- 1. Amend Contract Schedule 6: <u>Physical Plant Description</u>, by deleting page 6-1 and replacing it with the material attached as Exhibit 1.
- 2. Amend Contract Schedule 7b: <u>Educational Goals</u>, by deleting that schedule and replacing it with the material attached as Exhibit 2.
- 3. Amend Contract Schedule 7c: <u>Educational Programs</u>, by deleting that schedule and replacing it with the material attached as Exhibit 3.
- 4. Amend Contract Schedule 7d: <u>Curriculum</u>, by adding at the end of that schedule the Eighth Grade curriculum attached as Exhibit 4.
- 5. Amend Contract Schedule 7f: <u>Application and Enrollment Requirements</u>, by deleting that schedule and replacing it with the material attached as Exhibit 5.
- 6. Amend Contract Schedule 7h: <u>Age or Grade Range of Pupils</u>, by deleting that schedule and replacing it with the material attached as Exhibit 6.

The changes identified in this Section A shall have an effective date of August 26, 2019.

This amendment is hereby approved by the College Board and the Academy through their authorized designees and shall have effective dates as set forth above.

By: Michael C. Parish, President

By: Micliael C. Parish, President Bay Mills Community College Designee of the College Board

By: Dawn Thomas, President FlexTech High School – Shepherd Designee of the Academy

Dated: 9-13-19

Dated: 9-26-19

Exhibit 1

#### **SCHEDULE 6**

#### PHYSICAL PLANT DESCRIPTION

1. Applicable Law requires that a public school academy application and contract must contain a description of and the address for the proposed physical plant in which the public school academy will be located. See, MCL 380.502(3)(j); 380.503(5)(d).

2. The address and a description of the proposed physical plant (the "Proposed Site") of Flex Tech High School Shepherd ("Academy") is as follows:

Address:	380 West Blanchard Road
•	Shepherd, MI 48883

<u>General Description</u>: The 69,000 sq. ft. facility is owned by The Morey Foundation and was constructed in the spring of 2000. The parcel sits directly on the border of the Shepherd Public and Mt. Pleasant City School Districts within the Gratiot-Isabella RESD. There are 16 classrooms, with additional specialized space that includes an art room, music room, gymnasium with separate locker rooms for both boys and girls, a weight room, media center, chemistry lab, biology lab, middle school science lab, greenhouse, tech lab, business education room, and a cafeteria with stage and presentation area, a commercial kitchen, and related equipment. The facility also has several storage areas, meeting rooms, custodial space, and office and staff-related workspaces. The building was operational as a public charter school from 2001 through 2009, serving as the site for Morey Public School Academy's middle and high school programs.

The Academy will primarily be housed in the north wing of the facility. Please reference the layout for specific detail. The "red" border details the primary space that the proposed Academy will use on a regular basis. The area highlighted in "green" details the academic space that the proposed academy will use.

Term of Use: Term of Contract.

Configuration of Grade Levels: Eighth through twelfth grades.

Name of School District and Intermediate School District:

Local: Mt. Pleasant Public Schools ISD: Gratiot/Isabella

3. It is acknowledged and agreed that the following information about this Proposed Site is provided on the following pages, or must be provided to the satisfaction of the College Board, before the Academy may operate as a public school in this state.

- A. Size of building
- B. Floor Plan
- C. Description of Rooms

Exhibit 2

Pursuant to Applicable Law and Terms and Conditions of this Contract, including Article VI, Section 6.2, the Academy shall achieve or demonstrate measurable progress for all groups of pupils toward the achievement of the educational goal identified in this schedule. Upon request, the Academy shall provide Bay Mills Community College Charter Schools Office (BMCSO) with a written report, along with supporting data, assessing the Academy's progress toward achieving this goal. In addition, Bay Mills Community College Board of Regents Public School Academy Authorizing Body expects the Academy will meet the State of Michigan's accreditation standards pursuant to state and federal law.

## **Educational Goal to be Achieved:**

Prepare students academically for success in college, work, and life.

To determine whether the Academy is achieving or demonstrating measurable progress toward the achievement of this goal, BMCSO will annually assess the Academy's performance using the following measures:

#### Measure 1: Student Achievement

The academic achievement of all students in grades 7-11 will be assessed using the following metrics and achievement targets.

GRADES	METRICS	ACHIEVEMENT TARGETS
Grades 7-8	The average grade-level scores in reading and math as measured by the Measure of Academic Progress (MAP) by NWEA	Students enrolled for three* or more years will on average achieve scores equal to or greater than the grade-level reading and math college readiness achievement targets identified in this schedule
		identifica in this schedule

GRADES	METRICS	ACHIEVEMENT TARGETS	
Grades 9-11	The average grade-level scores	Students enrolled for two or	
	in reading and math as	more consecutive years will on	
	measured by the Measure of	average achieve scores equal	
	Academic Progress by NWEA	to or greater than the college	
	and average scores in all readiness achievement tar		
	subjects as measured by SAT	identified in this schedule.	
	test.		

## Measure 2: Student Growth

The academic growth of all students in grades 7-11 at the Academy will be assessed using the following metrics and growth targets:

Grades	Metrics	Growth Targets
Grades 7-8	Growth made by students from fall-to-	Students will on average
	spring in reading and math as measured by	achieve fall-to-spring academic
	growth targets set for each student on the	growth targets for reading and
	Measure of Academic Progress by NWEA	math as set for each student on
		the Measure of Academic
		Progress by NWEA

Grades	Metrics	Growth Targets
Grades 9-11	Growth made by students from fall-to-	Students will on average achieve
	spring in reading and math as measured by	fall-to-spring academic growth
	growth targets set for each student on the	targets for reading and math as
	Measure of Academic Progress by NWEA	set for each student on the
		Measure of Academic Progress
		by NWEA.

\*The measure of student growth is the most important, but not the only factor the authorizing body considers when determining whether the Academy is "demonstrating measurable progress" toward the contractual goal of preparing students academically for success in college, work, and life.

Some of the other factors considered are: academy's comparative position within state accountability reports, required state test proficiency rates compared to surrounding district's, the trend in the number of students reaching growth targets and achievement targets over the contract period.

#### **Achievement Targets**

Grade	NWEA Reading End-of-Year Target	NWEA Math End-of-Year Target
7	222	236
8	224	237
9	224.5 238	
10	225 243	
11	Composite SAT Score - 990	

Exhibit 3

## EDUCATIONAL PROGRAMS

Pursuant to Applicable Law and the Terms and Conditions of this Contract, including Article VI, Section 6.3, the Academy shall implement, deliver, and support the educational programs identified in this schedule.

## Mission

FlexTech High School- Shepherd ("Academy") will prepare each student for success in career, life, and higher education by providing an opportunity to earn a high school diploma in an engaging program with flexible scheduling and authentic learning experiences. FTS will provide a personal and caring environment, where students become active participants in planning and preparing for their future.

## Vision

The Academy is committed to providing an environment that combines relationships, relevance, and rigor where students can:

- take control of their education plan, allowing students to become proactive learners and encouraging personal growth;
- engage in relevant learning experiences that use community mentors;
- become critical thinkers who value learning as a life-long process; and
- learn 21st Century skills to prepare for the workplace.

## Values

The Academy is committed to preparing students for the contemporary work world by creating a school where students build essential skills and integrate content knowledge into activities and projects, work collaboratively, both in person and remotely, and solve problems creatively.

Students will be involved in:

- monitoring an individualized achievement plan that tracks project and standards completion;
- acquiring the social skills needed for academic and workplace success;
- developing personal responsibility through self-paced, technology and project-based learning which allows each student to advance through successful demonstration of content mastery;
- practicing the 21st Century skills of communication, collaboration, creative problem solving and critical thinking through the use of technology; and
- making the connections between effort and quality by monitoring and reporting the time and effort spent on work.

At the Academy, teachers will:

- regard each student as a distinct learner with individual educational goals and needs;
- provide knowledgeable, skillful, and compassionate guidance;
- reach out to families and guardians to support the student;

- be engaged in continuous professional development in a collaborative and supportive work environment;
- model personal and social responsibility; and
- teach relevant and rigorous academic content.

Parents and guardians of Academy students will:

- commit to providing basic needs such as transportation;
- agree to the rules and expectations of the school and support its mission;
- proactively support students by participating in school functions or project presentations; and
- be welcomed in the Academy as a full and contributing member of the school community.

## **Program Delivery**

The Academy is committed to welcoming students into school in a way that starts with the student, not the classes. By acknowledging and recognizing the areas where students may have previously struggled in school and assisting the student in designing a program that addresses these needs, students can value themselves as learners and re-engage in the learning process. Students' need for meaningful, relevant work is central to the delivery model. According to the Hope Study<sup>1</sup>, when students are empowered to advocate for projects and for themselves, or are encouraged to demonstrate learning in alternative ways, they build internal motivation and a sense of self-efficacy. This not only supports engagement but also begins to develop an academic self, a student who believes in his or herself as academically capable and viable. This can transform a student from one who may have believed that high school completion was out of reach to one who now imagines a college future.

## **Intake Process**

Upon enrollment each student meets with a member of the administrative team to discuss the student's academic past, review transcripts, and develop a personalized learning plan that includes the following:

- credits and course work currently completed;
- credits and courses needed for graduation;
- credits, coursework, extracurricular activities, and test scores necessary for college acceptance;
- individual schedule development designating times in school, including online course work and mandatory advisory meetings; and
- individual learning profile detailing where students have been successful in and out of school, and how to be successful at the Academy.

In the course of this interview, the student is introduced to the Academy's philosophy and

<sup>&</sup>lt;sup>1</sup> Newell, R. J., & Van Ryzin, M.J. (2007, February). *Growing hope as a determinant of school effectiveness*. Phi Delta Kappan, 88(6), 465-471.

provided with a description of the program including the expectations for work in and out of the school and what constitutes satisfaction of credit, the process of earning competencies, and graduation requirements. At the conclusion of the meeting, students commit to their own success and to the accountability standards of attendance and progress.

The competencies are the cornerstone of the Academy's curriculum. The competencies meet the requirements of the Michigan Merit Curriculum ("MMC") and integrate the CCSS. By breaking each course down to essential competencies that are published goals for all, students can choose to work through the curriculum in a variety of ways. The competency-based approach necessitates an instructional design where teachers act as consultants to students in translating learning goals and standards and exploring and expressing content. The Academy's model is based on using feedback from formative assessments specific to the task or process, or related to self-regulation, which has been shown to have a positive effect on student achievement.<sup>2</sup> The model is applied in conjunction with competency-based grading, the benefits of which allow a student to test out of an area where they are already proficient, but not necessarily a whole course. The use of a competency-based curriculum "map" helps remove the guesswork for students and the close advisor relationship provides the scaffolding to continuously redesign the pathway toward the goal as necessary. The "map" also allows the student to see progress in school in a visual, highly understandable way. According to Robert Marzano's meta-analysis, simply establishing and communicating learning goals in ways that allow students to track their progress and set goals results in increased student achievement.<sup>3</sup>

The Academy will borrow concepts from Big Picture Schools, one of the first schools to advocate for a personalized, advisory-driven, and project-based approach to learning. The Academy and Big Picture Schools share the common understanding that adolescent students, in particular struggling students who may be lacking support at home, need the right balance of support, intervention, clear instructions, explicit guidance and freedom to take their time or to find an appropriate avenue by which to approach the content or the skill. Therefore, the delivery of content in a combination of projects that are developed at the school with the close supervision of the teacher-advisor, supplemented with online work allows students to make rapid progress and feel successful.

The curriculum design supports a "truly personalized school." As Littky & Grabelle (2004)<sup>4</sup> from Big Picture Schools point out, "a truly personalized school is ultimately flexible in its student groupings, schedules, curriculum, activities, and assessment tools." All students' educational programs are designed by the people who know them best: the student, his or her

<sup>&</sup>lt;sup>2</sup> Marzano, R.J. (2010. *Formative Assessment and Standards Based Grading*. Bloomington, IN: Marzano Research Laboratory.

<sup>&</sup>lt;sup>3</sup> 3 Marzano, R.J. (2007). *The Art and Science of Teaching. Alexandria, VA:* Association for Supervision and Curriculum Development.

<sup>&</sup>lt;sup>4</sup> Littky, D., Grabelle, S., (2004). *The Big Picture: Education Is Everyone's Business*. Alexandra, VA. Association for Supervision and Curriculum Development

parent(s), and his or her teachers. Central to the advisory program is a robust and comprehensive Educational Development Plan ("EDP") each student develops under the guidance of an advisor. The EDPs are reviewed and updated annually by the student, creating a dynamic document to assist students in planning for their future through reflection on their current performance and goal attainment.

#### **Instructional Approaches**

The Academy believes strongly that the school must address the non-cognitive factors that affect student learning in a very deliberate fashion, which is achieved in two key ways. The first is through the advisory program and the second is through the project-based learning approach, both of which are held together by maintaining a focus on the Academy's academic and social expectations.

The program uses advisory to conduct explicit instruction in mindset, or the power of our own thinking about our abilities, as well as structure academic work in ways that build academic perseverance. As cited in a University of Chicago study:<sup>5</sup>

There is clear research evidence that students' mindsets have strong effects on their demonstration of perseverant behaviors such as persistence at difficult tasks. When students value the work they are doing, feel a sense of belonging in the classroom context in which they are working, feel capable of succeeding, and believe they will master challenging material with effort, they are much more likely to engage in difficult work and see it through to completion. Dweck, Walton, and Cohen (2011) explicitly suggest that the ways to improve academic tenacity are through interventions aimed at changing students' mindsets directly or by establishing classroom conditions that support the development of positive mindsets. When teachers can present tasks in ways that make success seem attainable, and when they provide students with the support and tools to be successful, students are more likely to engage and persist in those tasks (Dweck, Walton, & Cohen, 2011).

During the advisory class, students will receive this explicit instruction to reframe beliefs about their brain and their ability to learn, to demonstrate the relationship between effort and achievement, and to study the academic behaviors that lead to future success. In addition to studying mindset, students and staff will also study choice theory through William Glasser and others who teach students about what they can control and the factors that they cannot control. This type of instruction helps to build a common language in the school that can be used when students are struggling in course work or projects. It also provides a framework within which teachers can work comfortably and can change the dynamic of the conversations with students, shifting them from authoritative and often punitive control to conversations about choices, consequences, plans, and goal-setting. The delivery of this curriculum will include sharing the actual studies and data with students in an academic manner, thereby sharpening the skills we seek to improve as we study them.

The advisory program is the foundation upon which the personal and caring environment is built.

<sup>&</sup>lt;sup>5</sup> 5 Farrington, C., Roderick, C., et al., (2012, June). *Teaching Adolescents to Become Learners*. The University of Chicago Consortium on Chicago School Research.

It provides a model to any public school in recognizing the importance of the whole child and social-emotional learning. Recently proclaimed by contributors to the *ASCD Express* publication of August 2, 2012,<sup>6</sup> as the "next Superman," schools across the country are discovering that carefully designed advisory programs that focus on the social-emotional welfare of students; goal setting and progress monitoring are seeing improvement in student attendance and achievement. Project-based learning ("PBL") is also essential to engagement. PBL is not only complementary to the strong advisory program, because advisory has the consultation time necessary for PBL already built in, but is also the best pedagogical approach for the acquisition of 21st century skills,<sup>7</sup> for mirroring the contemporary workforce and workplace, and for creating relevance having students understand why school is important through discovery. This is the key to engagement. In an analysis of literature about PBL effectiveness, the Buck Institute for Education concludes that PBL can:<sup>8</sup>

- be more effective than traditional instruction in increasing academic achievement on annual state-administered assessment tests; be more effective than traditional instruction for teaching mathematics, economics, science,
- social science, clinical medical skills and for careers in the allied health occupations and teaching;
- be more effective than traditional instruction for long-term retention, skill development and satisfaction of students and teachers;
- be more effective than traditional instruction for preparing students to integrate and explain concepts;
- improve students' mastery of 21st-century skills;
- be especially effective with lower-achieving students; and
- provide an effective model for whole school reform

Successful PBL requires the development of a school culture and establishment of relationships. Therefore, the Academy guides students into the PBL process gradually. Students spend a considerable amount of time learning about the process involved in developing a project, in establishing rubrics of quality to reflect traits like critical thinking, and in using time well. The school spends time counseling students in how a seat time waiver works to support student learning. That is, the quality and quantity of work is not changed as students are still responsible for the demonstration of mastery of the Michigan Merit Curriculum but are navigating through it in an atypical fashion.

<sup>&</sup>lt;sup>6</sup> Chaffee, R., Landa, J., & Marchesi, S. (2012, August 2). Is Advisory the New Superman? *ASCD Express*, v 7 (22). Retrieved from http://www.ascd.org/ascd-express/vol7/722-chaffee.aspx.

<sup>&</sup>lt;sup>7</sup> Ravitz, J., Hixson, N., English, M., & Mergendoller, J. (2012). Paper presented at American Educational Research Association. *Using project based learning to teach 21st century skills: Findings from a statewide initiative*. Vancouver, BC. Retrieved from http://www.bie.org/research/study/PBL\_21CS\_WV

<sup>&</sup>lt;sup>8</sup> Buck Institute for Education. (2009). *Does PBL Work?* Retrieved from http://www.bie.org/research/study/does\_pbl\_work

Although freedom and choice are important to both the school and the students, the PBL process is standardized to resemble processes that look much like project management in the modern workplace. Students have templates to justify the project, pitch it, manage it through Project Foundry software, and provide updates on the project. The software provides support to teachers and parents as well, as it documents the standards that students are working on, records those that are completed, and keeps track of those that need to be completed.

Technology plays an important part in the development of student skills. The Academy may use online providers such as Google Classroom, Khan Academy, and CK-12 to deliver content, and some students may use Michigan Virtual School ("MVS") to earn full course credit as well. Technology may range from the student's smart phone to tablets, to laptops, to high-powered desktops that students might use to create games, applications, movies, or instructional tools. The use of technology is not a goal in and of itself, instead, discovering how technology can assist in solving problems and can be a tool for collaboration is the focus and the format of technology integration.

The Academy shares The Partnership for 21st Century Skill's ("P21") vision for education<sup>9</sup>, which involves using the standards, assessments, and accountability measures set by the State of Michigan and then aligning them with the 21st Century skills that follow:

- Emphasize core subjects: expand beyond basic competency to understanding at much higher levels.
- Emphasize learning skills: keep learning continually throughout their lives; information and communication skills, thinking and problem-solving skills, interpersonal and self-directional skills.
- Use 21st Century tools to develop learning skills: access, manage, integrate, and evaluate information, construct new knowledge, and communicate with others.
- Teach and learn in a 21st Century context: real-world examples, applications, and experiences both inside and outside of school; relevant, engaging, and meaningful learning.
- Teach and learn 21st Century content: global awareness; financial, economic and business literacy; and civic literacy.
- Use 21st Century assessments that measure 21st century skills: sophisticated assessment at all levels using new information technologies to increase efficiency and timeliness.

P21 provides resources in developing lessons and units that meet the goals of the CCSS and focus on relevance. The intentional focus helps teachers and students work with content in a way that makes its application to real-world scenarios genuine while simultaneously building the skills of communication, collaboration, and use of technology to demonstrate the qualities we seek to build in students.

<sup>&</sup>lt;sup>9</sup> Partnership for 21st Century Education. Washington DC, 2011. Available: http://www.p21.org/tools-andresources/publications

Academy teachers and administration are involved in an on-going professional development program that employs the same model as the school improvement cycle: research and plan, do the work, evaluate, and adjust. The school's leadership has planned the calendar so that teachers are provided a minimum of two-weeks of professional learning. Furthermore, teachers study the language and behaviors of high expectations. These studies are conducted in ways that are applied to the classroom and advising activities, used to inform the construction of the school schedule and individual student's schedule, and applied directly to teachers' own practice. The school provides time every Friday afternoon for collaborative planning and professional development and training from skilled professionals in numerous areas, including, but not limited to, social emotional learning, project-based learning, using technology to enhance instruction and increase engagement, as well as in using and applying Marzano's (2007) Unit Design questions from *The Art and Science of Teaching* in conjunction with Wiggins & McTighe's (2005) *Understanding by Design*.

## **Curriculum Flexibility**

#### Special Education

When making educational placement decisions for students with disabilities, the Academy will ensure that parents are contributing members of the IEP team and together the team is making decisions that are subject to requirements regarding provision of the LRE. When determining how services will be delivered to students with disabilities, the Academy will follow all Special Education Rules as issued by the Michigan Department of Education. If a child with a current IEP enrolls in the Academy, the Academy will implement the existing IEP to the extent possible, or will provide an interim IEP agreed to by parents until a new IEP can be developed. IEPs will be developed, revised and implemented in accordance with the Individuals with Disabilities Educational Improvement Act ("IDEIA") and state law and regulations. The Academy will fully comply with federal laws and regulations governing children with disabilities as follows:

- 1. The Academy is responsible for providing a free appropriate public education to children with disabilities enrolled in the Academy that have been determined through an IEP to require Special Education programs and services.
- 2. The Academy will ensure that children who are suspected of having disabilities are properly evaluated by a multidisciplinary team, as defined in the Michigan Special Education Rules, and that children who have already been identified are re-evaluated by the multidisciplinary team at least every three years.
- 3. When a multidisciplinary team determines that a special education student requires Special Education programs and services, the Academy will ensure that the IEP is fully implemented in accordance with IDEIA, and reviewed on an annual basis or more frequently as determined by the IEP team.

In addition to being compliant to all laws regarding students who need special education services, 504 plans, or English Language Learners ("ELL") services, the Academy also uses the Response to Intervention ("RTI") model to identify struggling students and put in assistive plans that may include recommendations for social work, counseling, or curriculum accommodations that are monitored for success.

## RTI Model

The RTI is a specialized program embedded within the classroom to serve students who have special learning challenges. RTI screens all students to identify those who are at- risk for learning failure. Through regular opportunities to consult with the RTI, classroom teachers gain specific knowledge and skills to use with their students through proactive, focused interventions. Intensive intervention delivered by a specially trained instructional faculty is provided to identify students early in the school program to prevent failure. Teachers trained in special education provide individual support to students identified through the IEP process.

The RTI model includes special education services provided by appropriately certified faculty.

In addition to providing services for special education students, the Academy's project-based learning instructional approach lends itself to meeting the needs of all learners (e.g. below grade level and gifted and talented). In conjunction with the advisor, a student may create a project that may be differentiated based on the student's specific skill level and interest. The student can demonstrate differentiated projects through content, process, product, and learning environment. The Academy's infusion of differentiation and project-based learning serve as a flexible method to accommodate students' different learning needs and preferences.

#### Assessment

The Academy intends to use assessment not only as a guide to instruction, but also as an instructional tool. Students who perform well on a multitude of assessment types such as multiple choice standardized tests, written response tests, projects, and performances are prepared to solve problems as adults. The Academy's assessment plan describes student learning targets and prepares students for different types of assessment. In any class, students may do a performance piece and also take a multiple choice/short answer test that not only prepares them for the types of assessments they may encounter post-high school, but also builds critical thinking skills.

The Academy uses performance evaluations to set annual targets based on progress towards meeting measurable goals. These annual targets are re-evaluated each year to ensure relevance and attainability. The Academy communicates progress towards targets and goals to students and parents through multiple means including progress reports, parent-teacher conferences, teacher office hours, and informational meetings following the receipt of standardized testing results. Annual reports are generated at the end of each school year.

However, students are the primary drivers in evaluating individual performance. Through the advisory program as well as through classroom instruction, students are engaged in regular progress monitoring and in goal setting aligned with the accrual of credits. Students understand how many and which credits they need to earn to fulfill a minimum of one year's learning in one year's time and log this progress and submit to the teacher-advisor. The school uses this information to communicate progress to parents appropriately and also uses this to identify weaknesses in the curriculum or implementation of the curriculum.

The school uses numerous summative data like the SAT, PSAT and M-STEP and NWEA to provide individual information on targeting specific deficiencies as well as guiding the overall program toward the reading and critical thinking skills required to do well on state standardized tests, as well as to prepare students for college and career. Formative assessment happens daily

in any skilled teacher's classroom. Because of the highly personalized nature of the program, teachers use conversations and written student reflections to guide their understanding of student ability and learning and make adjustments to classroom instruction as they go. The essential piece behind formative assessment is the clear understanding and communication of learning goals on the part of the teacher. Teachers construct units that communicate the whys of learning what they are teaching while also describing some of the ways students could engage in the content or skill and demonstrate mastery. Through the RTI system and collaborative planning time, teachers are supported and guided in developing these units. Teachers use formative classroom data—responses to questions, short quizzes, exit cards, journals, rates of turn-in, and participation to constantly evaluate their pedagogy as well as the content in these forums and use the expertise of peers, leaders, trainers, and support staff to guide their practice.

The assessments administered at the Academy (see table below) are comprised of the required assessments (highlighted) as well as Academy created or chosen assessments. These assessments do not reflect the whole of assessments at the Academy; rather, these are the assured assessments students in these grades are required to take. The Academy also uses summative assessments, which provide a means for students to "test out" of certain units. As students enter the Academy and progress in their studies, they demonstrate mastery of these skills and "check off" the appropriate standards in the standards map. Similarly, students who do not do well on the assessments are placed in units of study to address needs.

Assessment	Grades Assessed
NWEA	7 - 11
PSAT 8/9 for grade 9: paper/pencil assessment	9
PSAT 10 for grade 10: paper/pencil assessment	10
PSAT 8/9 Math	8-9
PSAT 8/9 English	8-9
Michigan Merit Exam ("MME") (SAT w/ Essay)	11
• Reading	9-12
Writing and Language	
• Math (with calculator)	
• Math (no calculator)	
ACT WorkKeys: paper/pencil assessment	11
Workplace Documents	
Applied Math	
Graphic Literacy	
M-STEP Science Field Test	8-10
M-STEP Social Studies	8-10
Scientific Literacy—Method and Experimental Design	7-12
Math Basics—The foundations of math	7-12
Communication Skills (Speaking and Listening)	7-12

#### Transition

Students who enter the Academy are seeking a learning environment unlike a typical traditional school. The unique qualities of the Academy inherent in PBL, advisory, flexible scheduling, and

an emphasis on 21st Century Learning requires training in order to smoothly and successfully transition new students into the Academy. Through an intensive first week orientation, along with follow-up and supporting activities in advisory, new students are transitioned to this environment. Continual close mentoring through the advisory program supports these transitional activities. Similarly, when students prepare to leave, the Academy engages in a yearlong senior portfolio project that showcases the ability to apply the skills of time-management, self-advocacy, organization, and problem solving to their next work or learning environment. This will involve reflection on the student's part as well as an exit interview in which the student articulates the way that they have been learning and how to transfer and apply this learning to new situations.

#### **Advisory Check-Ins**

All students at the Academy grades 7-12 receive check-ins in their advisory class. Each check-in serves to build relationships among advisories and also serves to purposefully assess each student's current progress toward graduation, post-high school plans, career ideas or hopes, the pathway to get there, personal information, assessment results, and learning targets. Students receive check-ins from the advisor consistently through the advisory class, allowing opportunities for personally reflecting on the progress and the struggles, and celebrating the successes.

#### **Graduation Requirements**

The Academy understands the main reason for the implementation of the Michigan Merit Curriculum is to safeguard the quality of the high school education students receive and to prepare all students for success in college and career. Further, the Academy understands that the MME/SAT were adopted as measures of this quality. The Academy is committed to establishing mastery of the Michigan Merit Curriculum Standards and CCSS by using skills such as reading complex texts, drawing and defending conclusions, generating and testing hypotheses, employing analogous thinking and other critical thinking skills across the curriculum. Ultimately, the measures for meeting this goal are steadily rising scores and proficiency ranking on the MME/SAT.

The Academy closely monitors student success in course work and uses a balanced assessment system to determine mastery and maintain rigor. Although projects are central to the Academy's mission, there is always a place for more traditional assessment methods. This strategy is regarded as essential for preparing students for the many ways they are asked to manipulate and process information in college or the workplace. The Academy uses the data to direct students to specific projects, courses, or components of courses. The Academy may also design skill-based workshops for groups of students who need remediation in areas (e.g. math facts or reading comprehension). In these cases, mini-courses, using high engagement strategies from Marzano's *The Art and Science of Teaching*<sup>10</sup>, are utilized to get quick results and build students' sense of efficacy.

<sup>&</sup>lt;sup>10</sup> Marzano, R. J. (2007) *The Art and Science of Teaching. Alexandria, VA:* Association for Supervision and Curriculum Development.

# 7<sup>th</sup> - 8<sup>th</sup> Grade Academic Expectations

FlexTech has committed to a set of Academy expectations that it disseminates among parents and students. The expectations, found on the Academy's website and given to and discussed with parents and students at the start of each school year, articulate the Academy's goals of learning and include:

Key Cognitive Strategy	Students will achieve by		
Remaining Open to	Developing an openness to explore and appreciate all subject matter		
<b>Continuous Learnin</b>	g explored in courses.		
Analysis	Being able to separate and investigate the component parts of a subject in order to study and better understand the smaller parts relation in making up the whole.		
Interpretation	Evaluating, synthesizing and communicating the issues, themes and conflicts presented in all courses.		
Reasoning, Argumentation, Pro	Constructing focused, coherent, fully supported positions on a variety of topics and issues. Students will seek reasons and strive to be well informed.		
Metacognition	Reflecting on the process of learning and thinking about the work is a key component of every course. Students are expected to think about he learning process and understand how it relates to the student as the earner.		
Academic Behavior Students will achieve by			
Study Skills	Developing and adhering to assignment deadlines.		
Organization	Being able to organize a range of tasks appropriate to the assignments.		
Work Habits	Being able to work independently, collaboratively and seek assistance if needed.		
Academic Integrity	Acting honestly and ethically in the academic work.		
Persisting	Taking advantage of opportunities to demonstrate mastery.		
Managing	Employing classroom behavior that promotes a supportive learning		
impulsivity	environment for all students.		

## Academic Thinking and Skills Goals

<b>Responsible Use of</b> [	<b>Fechnology</b> Using technology responsibly and for academic purposes.
Contextual Skill and Awareness	Students will achieve by
Value of Education	Being aware of the importance of continuing post- secondary opportunities and because of this are expected to actively participate in the courses.

Respect of Others	Respecting the opinions of those whose opinions differ and to understand that people can maintain civility even when holding opposite opinions and beliefs.
Awareness of Support Systems	Being aware of support systems, including academic and career resources.

#### Michigan High School Graduation Requirements (18 Credits)

#### ENGLISH LANGUAGE ARTS (ELA) - 4 Credits

• Proficiency in State Content Standards for ELA (4 credits)

MATHEMATICS – 4 Credits

• Proficiency in State Content Standards for Mathematics (3 credits); and

• Proficiency in district approved 4th Mathematics credit options (1 credit) (Student MUST have a Math experience in their final year of high school.)

ONLINE LEARNING EXPERIENCE

• Course, Learning, or Integrated Learning Experience.

PHYSICAL EDUCATION & HEALTH - 1 Credit

• Proficiency in State Content Standards for Physical Education and Health (1 credit); or

• Proficiency with State Content Standards for Health (1/2 credit) and district approved extracurricular activities involving physical activities (1/2 credit).

#### SCIENCE – 3 Credits

• Proficiency in State Content Standards for Science (3 credits); or

• Beginning with the Class of 2015: Proficiency in some State Content Standards for Science (2 credits) and completion of a Department approved formal Career and Technical Education (CTE) program (1 credit).

#### SOCIAL STUDIES - 3 Credits

• Proficiency in State Content Standards for Social Studies (3 credits).

VISUAL, PERFORMING, AND APPLIED ARTS - 1 Credit

• Proficiency in State Content Standards for Visual, Performing, and Applied Arts (1 credit).

WORLD LANGUAGE – 2 Credits (Effective with students entering 3rd Grade in 2006) • Formal coursework or an equivalent learning experience in Grades K-12 (2 credits); or • Formal coursework or an equivalent learning experience in Grades K-12 (1 credit) and completion of a Department approved formal Career and Technical Education program or an additional visual, performing, and applied arts credit (1 credit).

#### Michigan Merit High School Graduation Requirement Overview

The Academy is in compliance with Michigan in requiring students to meet all parts of the MMC to graduate as is evidenced in the current course offerings:

Michigan Merit Curriculum	18 credits
Advisory (.5 required per year of enrollment)	.5 - 2.0 credits
Electives	.5 – 4.0 credit

#### **Total Academic Credits Required for Graduation: 20 credits**

# MICHIGAN MERIT CURRICULUM & ACADEMY REQUIRED CREDITS

Content Area	Credits	Description
English	4.0	English Language Arts 1, English Language Arts 2
		English Language Arts 3 English Language Arts 4
Mathematics	4.0	Either the integrated Math 1 and Math 2,
		or the traditional Algebra I, Geometry, Algebra II, and
		one additional math course.
Science	3.0	Biology, Physics or Chemistry, and one additional
		science credit
Social Students	3.0	.5 credit in Civics, .5 credit in Economics, U.S. History
		and Geography, and World History and Geography
Visual Arts	1.0	Visual Arts or Digital Arts
Physical Education/Health	1.0	Physical Education and Health course
Foreign Language*	2.0	Students may receive credit if they have had a similar
		learning experience in grades K-12.
Electives	.5-4.0	Courses will vary
Advisory	.5-2.0	Must pass advisory each semester

\*Can be substituted for formal coursework or an equivalent learning experience in Grades K-12 (1 credit) and completion of a department approved formal CTE program or an additional visual, performing, and applied arts credit (1 credit).

## **Program Evaluation**

The Academy evaluates the Educational Program by monitoring progress toward mission specific measures. The goals include achievement targets that are measured with standardized assessment scores, percentages of standards/competency completion, attendance data, work completion, quality of projects, feedback from community sponsors and mentors, perception data gathered from surveys of students, parents and staff, and enrollment and retention data. Ultimately, the success of the program rests upon academic achievement that translates into success in college, career, and life. The Academy endeavors to follow its students post-graduation to measure its program over the long-term.

The Academy's mission specific measures are delineated through student achievement, student progress, and post-secondary plans. Student achievement is measured as follows: 1.) All students who have been enrolled for three or more years at the Academy on average will demonstrate academic achievement in Reading, Writing and Language, and Math as measured by the SAT test each spring that is equal to or greater than the achievement targets established by College Board and 2.) The Academy will demonstrate improved academic achievement for all groups of pupils in science and social studies as measured by the M-STEP test that is equal to or greater than the growth targets established by the Michigan Department of Education (MDE).

Regarding student progress, all students will make adequate progress in core competency attainment each school year. Lastly, post-secondary plans are measured through the creation of an FTS Portfolio and presentation of a Senior Chronicle that demonstrates completion of an internship or a career study as well as successful mastery of the advisory curriculum.

The Academy gathers data to monitor progress toward these measures and establishes a reporting timeline, ideally twice per year—at the mid-point and at the end of the academic year. The Academy will share data with all stakeholders to determine areas for improvement and adjustments to the curriculum, to the instructional delivery models, to the advisory component, or to the counseling component.

Exhibit 4

# FlexTech Shepherd Curriculum Guide 2019 - 2020 Grades 7 and 8

The goal of the 7/8 curriculum at FlexTech Shepherd is to prepare students for the rigors of a college/career preparatory curriculum and develop a strong foundation for project based learning skills. Students will complete a two-year cycle of courses that use Michigan's Grade Level Content Expectations and the Michigan Academic Standards as guides and will serve as a strong foundation for high school. Because some students will enter as eighth graders and some as seventh graders, the curriculum will integrate GLCEs and HSCEs in both years. In the case of science and mathematics, students who successfully complete the two-year cycle will have met the requirement for HS Earth Science and for HS Algebra. Students who did not receive both years will still have had the necessary exposure to all content in all areas to be successful upon entering high school. In fact, Courses will be organized around themes that connect all content areas and effectively cover the content expectations for MI, reflect the skills identified in the SAT college and career readiness benchmarks and are mindful of the Common Core State Standards and goals.

The academy will also use a portfolio course to meet multiple aims: to create community among this cohort of students, to unify the studies under a thematic focus, to conduct career explorations and to practice communication and collaboration and to meet many MI technology and art expectations through the construction and presentation of the actual portfolio piece.

Year One	Year Two	9 <sup>th</sup> Grade Course
Integrated Mathematics (I)	Integrated Mathematics (II)	Geometry
Pre-Algebra	Pre-Algebra or Integrated	Algebra I
	Mathematics (I)	
English (I)	English (II)	English 9
Science One—Physics and Life	Science Two—Earth	Biology
Social Studies (I)	Social Studies (II)	World History
World Languages	World Languages or German I	German I or
		German II
Health and Physical Education	Health and Physical Education	
Portfolio Project (I)	Portfolio Project (II)	N/A

#### Mathematics

FlexTech has coordinated the 7<sup>th</sup> and 8<sup>th</sup> grade math curriculum with the Common Core State Standards, which focus on

the application of mathematics. The curriculum helps a student develop both a verbal and written explanation of problem solving strategies and solutions and the schedule supports both remediation and extensions by having standard math classes and math labs. Instructionally, teachers work to integrate math during other class times when possible and to build modeling projects within the course.

The goal is to teach students how to solve problems and analyze math problems using high level thinking skills. The focus of the program is not only accurate computation, but also an exploration of subjects and different methods of solutions. Students will learn how to solve problems in both cooperative groups and individually. Teachers will develop differentiated instruction and assignments based on student needs. The use of short, open questions to stimulate student conversation about math, at all ability levels is a key strategy where application is the focus. Students will be pre-assessed to determine prior learning and capacity to prevent repetition and duplication of instruction. Placement will be based on State and District assessments as well as math proficiency determined by math instructor. Honors level instruction and material will be offered based on individual student proficiency.

Because the Common Core has focused on making math relevant, FlexTech has embraced this model that emphasizes the practical application (relevance) of math and is focused on a conceptual understanding of math that encourages problem solving. The Common Core has identified Mathematical Practice Standards that are the hallmarks of effective mathematics instruction and has organized units of study around them. They are: Make sense of problems and persevere in solving them; Reason abstractly and quantitatively; Construct viable arguments and critique the reasoning of others; Model with mathematics; Use appropriate tools strategically; Attend to precision; Look for and make use of structure; Look for and express regularity in repeated reasoning.

The benefit of this approach is, according to the Common Core State Standards, that, "The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations."

Junior High School mathematics courses, when applicable, participate in the integrated projects with English, social studies, science and art and therefore approaches the same themes when possible, allowing for more real world connections to be made in the math classroom.

Therefore, students who have had the benefit of both 7<sup>th</sup> and 8<sup>th</sup> grade at FlexTech Shepherd High School will take Geometry as ninth graders. Students who had just the one year, will take Algebra I as a ninth grader or be given the option to test out of Algebra I and proceed to Geometry as well.

Additionally, FlexTech Shepherd will continue to offer Pre-Algebra for students in grades 7, 8, and 9 who either prefer or need the more traditional approach to mathematics instruction.

Integrated Mathematics I				
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary
CCSS: 7NS.1, 7NS.2, 7NS.3, 8NS1, 8NS.2, 8EE.1, 8EE2, 8EE.3, 8EE.4 MI	<ul> <li>Apply and extend previous understandings of operations with fractions to add, subtract, multiply and divide rational numbers.</li> <li>Know that there are numbers that are not rational and approximate them by rational numbers.</li> <li>Work with radicals and integer exponents.</li> </ul>	<ul> <li>Projects</li> <li>Unit Tests</li> </ul>	Pre-Algebra text http://www.math- drills.com  http://wvde.state.wv.us/s trategybank/summarizati on.html  http://www.funmaths.co  m/worksheets/index.htm  http://www.helpingwith  math.com/resources/oth  _number_lines.htm  www.edhelper.com	<ul> <li>Rational numbers</li> <li>Irrational numbers</li> <li>Exponents</li> <li>Square root</li> <li>Cube root</li> <li>Additive inverse</li> <li>Absolute value</li> <li>Distributive property</li> <li>Radicals</li> </ul>

CCSS: 7RP.1, 7RP.2, 7RP.3, 7EE.1, 7EE.2, 7EE.3, 7EE.4, 8EE.5, 8EE.6, 8EE.7,	<ul> <li>Analyze proportional relationships and use them to solve real-world and mathematical problems.</li> <li>Use properties of operations to generate equivalent expressions.</li> <li>Solve real-life and mathematical problems using numerical and algebraic expressions and equations.</li> <li>Describe the connections between proportional relationships, lines and linear equations.</li> <li>Analyze and solve linear equations and pairs of simultaneous linear equations.</li> </ul>	<ul> <li>Projects</li> <li>Tests</li> </ul>	Pre-Algebra text http://www.math- drills.com  http://wvde.state.wv.us/s trategybank/summarizati on.html  http://www.funmaths.co  m/worksheets/index.htm  http://www.helpingwith  math.com/resources/oth  _number_lines.htm  www.edhelper.com	<ul> <li>Ratios</li> <li>Rate</li> <li>Constant of proportionality</li> <li>Proportional relationships</li> <li>Slope</li> <li>Coefficients</li> </ul>
CCSS: 7.SP.1, 7SP.2, 7SP.3, 7SP.4, 7SP.5, 7.SP.6, 7SP.7, 7SP.8	<ul> <li>Use random sampling to draw inferences about a population.</li> <li>Draw informal comparative inferences about two populations.</li> </ul>	<ul> <li>Data collection, analysis and representation project in conjunction with other core classes for end of year</li> </ul>	Pre-Algebra text <u>http://www.math-</u> <u>drills.com</u> <u>http://wvde.state.wv.us/s</u> <u>trategybank/summarizati</u> <u>on.html</u>	<ul> <li>Sample</li> <li>Population</li> <li>Mean</li> <li>Median</li> <li>Mode</li> <li>Variability</li> <li>Probability</li> <li>Events</li> <li>Inference</li> </ul>

	<ul> <li>Investigate chance processes and develop, use and evaluate probability models.</li> </ul>	portfolio presentation. • Unit test	http://www.funmaths.co m/worksheets/index.htm http://www.helpingwith math.com/resources/oth _number_lines.htm www.edhelper.com	
CCSS: 7.G.1, 7.G.2, 7.G.3, 7.G.5, 7.G.6, 8.G.1, 8.G.2, 8.G.3, 8.G.4, 8.G.5, 8.G.9	<ul> <li>Draw, construct and describe geometrical figures and describe the relationships between them.</li> <li>Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.</li> <li>Explain congruence and similarity using physical models, transparencies, or geometry software.</li> <li>Solve real-world and mathematical problems involving volume of cylinders.</li> </ul>	<ul> <li>Packaging Project</li> <li>Unit Test</li> </ul>	Google Sketch-Up	<ul> <li>Congruence</li> <li>Volume</li> <li>Area</li> </ul>

	Integ	grated Mathematics II		
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary
CCSS: N.Q.1, N.Q.2, N.Q.3, A.SSE.1, A.CED.1, A.CED.2, A.CED.3, A.CED.4	<ul> <li>Reason quantitatively and use units to solve problems.</li> <li>Interpret the structure of expressions.</li> <li>Create equations that describe numbers or relationships.</li> </ul>	<ul> <li>Projects</li> <li>Tests</li> </ul>	Pre-Algebra text         http://www.math- drills.com         http://wvde.state.wv.us/st         rategybank/summarizatio         n.html         http://www.funmaths.co         m/worksheets/index.htm         http://www.helpingwithm         ath.com/resources/oth_n         umber_lines.htm         www.edhelper.com	<ul> <li>Sequences</li> <li>Functions</li> <li>Coordinates</li> <li>Domain</li> <li>Range</li> </ul>
			<u>umber_lines.htm</u> <u>www.edhelper.com</u>	

A.REI.12, B.F.1, B.F.2, B.F.3, F.IF.1, F.IF.2, F.IF.3, 8.F.4, 8.F.5, F.IF.4, F.IF.5, F.IF.6, F.IF.7, F.IF.9, F.BF.1, F.BF.2, F.BF.3, F.LE. 1, F.LE.2, F.LE.3, F.LE.5	<ul> <li>equations and inequalities graphically.</li> <li>Define, evaluate, and compare functions.</li> <li>Understand the concept of a function and use function notation.</li> <li>Use functions to model relationships between quantities.</li> <li>interpret functions that arise in applications in terms of a context.</li> <li>Analyze functions using different representations.</li> <li>Build a function that models a relationship between two quantities.</li> <li>Build new functions from existing functions.</li> <li>Construct and compare linear, quadratic, and exponential models and solve problems.</li> <li>Interpret expressions for functions in terms of the situation they model.</li> </ul>	• Tests	http://www.math- drills.comhttp://wvde.state.wv.us/st rategybank/summarizatio n.htmlhttp://www.funmaths.co m/worksheets/index.htmhttp://www.funmaths.co m/worksheets/index.htmhttp://www.helpingwithm ath.com/resources/oth_n umber_lines.htmwww.edhelper.com	<ul> <li>Curve</li> <li>Linear relationships</li> </ul>
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CCSS: A.REI.1, A.REI.3, 8.EE.B, A. REI.5, A.REI.6,	<ul> <li>Understand solving equations as a process of reasoning and explain the reasoning.</li> <li>Solve equations and inequalities in one variable.</li> <li>Analyze and solve linear equations and pairs of simultaneous linear equations.</li> <li>Solve systems of equations.</li> </ul>	<ul> <li>Projects</li> <li>Tests</li> </ul>	Pre-Algebra text         http://www.math-         drills.com         http://wvde.state.wv.us/st         rategybank/summarizatio         n.html         http://www.funmaths.co         m/worksheets/index.htm         http://www.helpingwithm         ath.com/resources/oth_n         umber_lines.htm         www.edhelper.com	Coefficients
CCSS: S.ID.1, S.ID.2, S.ID.3, 8.SP.1, 8.SP.2, 8.SP.3, 8.SP.4, S.ID.5, S.ID.6, S.ID.7, S.ID.8, S.ID.9,	<ul> <li>Summarize, represent, and interpret data on a single count or measurement variable.</li> <li>Investigate patterns of associate in bivariate data.</li> <li>Summarize, represent, and interpret data on two categorical and quantitative variables.</li> <li>Interpret linear models.</li> </ul>	<ul> <li>Projects</li> <li>Tests</li> </ul>	Pre-Algebra text <a href="http://www.math-drills.com">http://www.math-drills.com</a> <a href="http://wvde.state.wv.us/st">http://wvde.state.wv.us/st</a> <a href="http://www.state.wv.us/st">rategybank/summarizatio</a> <a href="http://www.state.wv.us/st">n.http://wvde.state.wv.us/st</a> <a href="http://www.state.wv.us/st">rategybank/summarizatio</a>	

			http://www.helpingwithm ath.com/resources/oth_n umber_lines.htm www.edhelper.com
CCSS: G.CO.1, G.CO.2, G.CO.3, G.CO.4, G.CO.5, G.CO.6, G.CO.8, G.CO.12, G.CO.13, 8.G.6, 8.G.7, 8.G.8,	<ul> <li>Experiment with transformations in the plane.</li> <li>Understand congruence in terms of rigid motions.</li> <li>Make geometric constructions.</li> <li>Understand and apply the Pythagorean theorem.</li> </ul>	<ul> <li>Projects</li> <li>Tests</li> </ul>	Pre-Algebra text         http://www.math-         drills.com         http://wvde.state.wv.us/st         rategybank/summarizatio         n.html         http://www.funmaths.co         m/worksheets/index.htm         http://www.helpingwithm         ath.com/resources/oth_n         umber_lines.htm         www.edhelper.com
CCSS: G.GPE.4, G.GPE.5, G.GPE.7	<ul> <li>Use coordinates to prove simple geometric theorems algebraically.</li> </ul>	<ul><li> Projects</li><li> Tests</li></ul>	Pre-Algebra text       http://www.math-       drills.com

	http://wvde.state.wv.us/st rategybank/summarizatio	
	http://www.funmaths.co	
	http://www.helpingwithm	
	ath.com/resources/oth_n umber_lines.htm	
	www.edhelper.com	

Pre-Algebra				
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary
Understand real number concepts, quadratic functions. Understand solutions	<ul> <li>Identify the location of a point with a positive coordinate on the number line.</li> <li>Locate points on the number line and in the first quadrant.</li> </ul>	<ul> <li>Unit tests</li> <li>Cumulative Exams</li> </ul>	Pre-Algebra text	<ul> <li>Evaluate Solution Relation</li> <li>Algebraic expression</li> <li>Ordered pair</li> </ul>
and solve equations, simultaneous equations, and linear inequalities.Grade 8 Mathematics CEs:	<ul> <li>Work with squares and square roots of numbers.</li> <li>Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern</li> </ul>		http://www.math-drills.com	<ul> <li>Variable</li> <li>Counterexample</li> <li>Equation</li> <li>Origin</li> <li>Integers</li> <li>Equations</li> </ul>

N.ME.08.03-06, A.PR.08.06, A.FO.08.12 Solve problems: Grade 8 Mathematics CEs N.MR.)08.08-11 Understand the concept of non-linear functions using basic examples. Grade 8 Mathematics CEs: A.PR.08.01-03, A.FO.08.13	<ul> <li>identification, absolute value, primes, and greatest common factor.</li> <li>Solve routine two and three step arithmetic problems, involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average.</li> <li>Solve multi-step arithmetic problems that involve planning or converting units.</li> <li>Read tables and graphs.</li> <li>Manipulate data from tables and graphs.</li> <li>Perform straightforward word- to-symbol translations.</li> <li>Write expressions, equations, or inequalities with a single variable for common pre- algebra settings.</li> <li>Identify solutions to simple quadratic equations.</li> <li>Perform computations using information from a table or chart, and on data from tables</li> </ul>	http://wvde.state.wv.us/stra         tegybank/summarization.ht         ml         http://www.funmaths.com/         worksheets/index.htm         http://www.helpingwithmat         h.com/resources/oth_numb         er_lines.htm         www.edhelper.com	<ul> <li>Venn Diagram</li> <li>Expanded form</li> <li>Power</li> <li>Factors</li> <li>Standard form</li> <li>Prime number</li> <li>Exponent</li> <li>Least common denominator</li> <li>Common difference</li> <li>Mean median</li> <li>Terminating decimal</li> <li>Arithmetic sequence</li> <li>Ratio</li> <li>Proportion</li> <li>Percent</li> <li>Identity</li> <li>Inequality</li> <li>Null or empty set</li> <li>Direct variation</li> <li>Rate of change</li> <li>Best fit line</li> <li>Function</li> </ul>
	<ul> <li>information from a table or chart, and on data from tables and graphs.</li> <li>Use geometric formulas when all necessary information is given.</li> </ul>		<ul> <li>Best fit line</li> <li>Function</li> <li>Slope-intercept form</li> <li>System of equations</li> </ul>
Recognize, represent, and apply common formulas. Grade 8	<ul> <li>Substitute whole numbers or unknown quantities to evaluate expressions.</li> </ul>		<ul><li>Constant variation</li><li>Hypotenuse</li><li>Equilateral triangle</li></ul>

Mathematics CE's: A.FO.08.08-09 Understand and use the Pythagorean Theorem and solve problems about geometric figures. Grade 8 Mathematics CE's: G.GS.08.01-05; G.SR.08.03-05 Understand concepts of volume and surface area, and apply formulas, and apply concepts of transformation and symmetry. Grade 8 Mathematics CE's: G.SR.08.06,07,08,10	<ul> <li>Evaluate algebraic expressions by substituting integers for unknown quantities.</li> <li>Use geometric formulas when all necessary information is given.</li> <li>Compute the area and circumference of circles after identifying necessary information.</li> <li>Compute the area of triangles when whole number dimensions are given.</li> <li>Compute the area and perimeter of triangles and rectangles in simple problems.</li> <li>Use geometric formulas when all necessary information is given.</li> </ul>		<ul> <li>Obtuse triangle</li> <li>Legs</li> <li>Angle</li> <li>Isosceles triangle</li> <li>Similar triangles</li> <li>Pythagorean Theorem</li> <li>Quadratic function</li> <li>Binomial</li> <li>Degree</li> <li>Polynomial</li> <li>Cubic function</li> <li>Trinomial</li> <li>Nonlinear function</li> </ul>
Draw, explain, and justify conclusion based on data and understand probability concepts for simple and compound events.	<ul> <li>Perform single computation using information from a table or chart.</li> <li>Read tables or graphs.</li> <li>Perform computations on data from tables and graphs.</li> <li>Determine the probability of a simple event.</li> </ul>		
Grade 8 Mathematics	Compute straightforward		
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CE's: D.AN.08.01,	probabilities for common		
03,04,05,06	situations.		

## **English Language Arts**

The ELA curriculum has been designed to scale up student's fluency in English grammar, skill in reading informational texts as well as literature and with an eye toward the intensive, information rich reading that students will be expected to do at college and in the workplace. FlexTech ascribes to and follows the beliefs articulated by the designers of the Michigan Academic Standards with regard to achievement within the English Language Arts: As a natural outgrowth of meeting the charge to define college and career readiness, the Standards also lay out a vision of what it means to be a literate person in the twenty-first century. Indeed, the skills and understandings students are expected to demonstrate have wide applicability outside the classroom or workplace. Students who meet the Standards readily undertake the close, attentive reading that is at the heart of understanding and enjoying complex works of literature. They habitually perform the critical reading necessary to pick carefully through the staggering amount of information available today in print and digitally. They actively seek the wide, deep, and thoughtful engagement with high quality literary and informational texts that builds knowledge, enlarges experience, and broadens worldviews. They reflexively demonstrate the cogent reasoning and use of evidence that is essential to both private deliberation and responsible citizenship in a democratic republic.

In short, students who meet the Standards develop the skills in reading, writing, speaking, and listening that are the foundation for any creative and purposeful expression in language.

With this in mind, and with careful data analysis, the curriculum is regularly reviewed and aligned.

The English Language Arts curriculum in 7<sup>th</sup> and 8<sup>th</sup> grade is intended to begin to introduce students to the more complex texts they will encounter in high school and beyond. Specifically, students will begin to read more non-fiction texts and will begin to analyze the craft of writing as a tool to persuade, entertain, and inform.

Students will also write frequently and reflect upon their writing. In conjunction with the advisory class, Junior High students will self-monitor their engagement with reading and writing and use discourse to deepen their understanding as well as begin to synthesize multiple texts for the coherent, concise and professional presentation of their own ideas. In all Junior High English courses students will improve literacy using non-fiction texts from these areas and will focus their research papers on this theme with elements from all areas. For example, students may look at environmental issues and their effect on the poor in particular.

These courses are taught in a multi-grade fashion and rotate over two years, reaching all course content expectations within those two years. Skills and tasks/assessments are differentiated and scaffolded throughout the two year cycle, continuously building student skills throughout the two years. The English courses are organized around a theme that carries into the social studies, science, math and art courses, adding relevance and allowing for cross-curricular work.

In both courses students will improve literacy using non-fiction texts from these areas and will focus their research papers on this theme with element from all areas. For example, in social justice students may look at environmental issues and their effect on the poor in particular; or, in Adversity, Conflict and Change students might study how the agricultural advances of the 16<sup>th</sup>-18<sup>th</sup> centuries made westward expansion possible and analyze the positive and negative effects of these on native and immigrant populations.

English II: Social Justice					
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary	
MI GLCEs: R.CM.06-08.02 R.NT.06-08.05 R.NT.06-07.01 R.NT.08.03 R.WS.06-08.01 R.WS.06-08.02 R.WS.06-08.07 R.NT.06.04 R.NT.07.04 R.NT.07.04 R.NT.08.04 R.WS.08.07 R.NT.06-08.02 R.CM.06-08.01 CCSS: Reading Standards for Literature, 1-6, 7,9	<ul> <li>Cite textual evidence, to determine the central theme of a literary text.</li> <li>Decode new vocabulary based on connotation and denotation and analyze how they affect the overall meaning of the text.</li> <li>Compare multiple literary texts and describe how each uses language and the elements of literature to affect the reader.</li> <li>Identify and analyze stereotypes and distortions of gender, race, socioeconomics, etc.</li> <li>Read complex texts independently and proficiently.</li> </ul>	<ul> <li>Literary Analysis—Essay on Symbolism</li> </ul>	Newspapers	<ul> <li>Metaphor</li> <li>Analogy</li> <li>Symbol</li> <li>Imagery</li> <li>Allusion</li> </ul>	
MI GLCEs: W.GN.06.02 , W.PR.06-08.04 W.PS.06-08.01	<ul> <li>Cite textual evidence that strongly supports a thesis.</li> <li>Analyze informational texts for how the author organizes and presents and argument and for the</li> </ul>	<ul> <li>Persuasive Essay on Social Issue</li> <li>Editorial</li> </ul>	Newspapers	<ul> <li>Persuasion</li> <li>Rhetoric</li> <li>Propaganda</li> <li>Ethos</li> </ul>	

W.PR.06-08.02 W.PR.06-08.04 W.PR.06-08.03 W.PR.06-08.05 CCSS: Reading Informational Texts: 1- 6, 8,9,10 Writing: 1a,b,c,d,e; 4,5	<ul> <li>validity and appropriateness of the supports for the argument.</li> <li>Read complex texts independently and proficiently.</li> <li>Write a clear, persuasive argument.</li> <li>Use the writing process of editing and redrafting to improve writing and to collaborate with peers on good writing.</li> </ul>		<ul><li>Logos</li><li>Pathos</li></ul>
MI GLCEs: W.GN.06.01 W.GN.07.01 W.GN.08.01 W.PS.06- 08.01, W.PS.06.01 <b>R.NT.06-08.05</b> <b>R.IT.06-08.04</b> <b>R.CS.06-8.01</b> <b>R.WS.06-08.02</b> <b>7</b> - analyze <b>8</b> - evaluate CCSS: Writing: 3a,b,c,d,e; 10 Vocabulary Acquisition and Use, 4a,b,c,d,e	<ul> <li>Write narratives to develop real experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</li> <li>Use narrative techniques, such as dialogue,</li> <li>pacing, description, and reflection, to develop</li> <li>Experiences, events, and/or characters.</li> <li>Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.</li> <li>Provide a conclusion that follows from and</li> <li>Reflects on the narrated experiences or events.</li> </ul>	<ul> <li>Creative/Express ive Essay on Historical person</li> <li>Poetry Presentation</li> <li>Internet, Chromebook, Khan Academy Grammar</li> </ul>	<ul> <li>Historical Fiction</li> <li>Rhyme</li> <li>Meter</li> </ul>
MI GLCEs: W.GN.07.02 W.PS.06-08.01 W.PR.06-08.02 W.PR.06-08.03 W.PR.06-08.03 W.PR.06-08.05 W.GN.07.03 W.GN.08.03	<ul> <li>Write a research report using a wide variety of resources that includes appropriate organizational patterns (e.g., position statement/supporting evidence, problem statement/solution).</li> <li>Use a collaborative process to reflect on the qualities of good writing to edit and improve essays.</li> </ul>	<ul> <li>Research Report</li> <li>Internet, Chromebook, Online presentation software</li> </ul>	<ul> <li>Citations</li> <li>Documentation</li> <li>Sources</li> <li>Plagiarism</li> </ul>

W.GN.07.02 R.NT.06-08.05 R.IT.06- 08.04 R.CS.06-8.01 CCSS Writing: 2a,b,c,d,e; 4,5,6,7,8,9 MI GLCEs: W.GR.06- 08.01, W.GR.06-08.01. W.SP.06-08.01 CCSS: Knowledge of Language 1,2,3	<ul> <li>Students will understand and use the following correctly: commas, semi-colons, end marks, apostrophes, quotation marks and italics/underlining.</li> <li>Students will understand, edit for, and explain subject/verb agreement; pronoun/antecedent agreement; appositives, infinitives and prepositional phrases.</li> <li>Students will recognize and be able to label parts of speech within a sentence.</li> </ul>	<ul> <li>Unit Tests throughout Year Mid Term Exam</li> <li>Final Exam</li> <li>Explore tests</li> </ul>	<ul> <li>Noun</li> <li>Pronoun</li> <li>Verb</li> <li>Adverb</li> <li>Adjective</li> <li>Conjunction</li> <li>Interjection</li> <li>Preposition</li> <li>Antecedent</li> <li>Subject</li> <li>Predicate</li> </ul>
MI GLCEs: S.DS.06-08.01 , S.DS.06-08.03 , S.DS.06.02, L.CN.06- 08.02, L.CN.06.01, L.CN.08.01 , L.RP.06-08.01 , L.RP.06-04 , L.RP.06-04, L.RP.08.04, L.RP.08.04, L.RP.06-07.07, L.CN.07.01 L.CN.08.01 L.RP.06-08.05 , 7, 8	<ul> <li>Determine the best way to present information.</li> <li>Write and deliver a speech to convey information.</li> </ul>	Portfolio     Presentation     Reflection Essay     Software	

L.RP.06.06		
L.RP.07-08.06		
CCSS: Standards for		
Speaking and		
Listening—		
Comprehension and		
Collaboration 1a.b.c.d,		
2,3,; Presentation of		
Knowledge and Ideas		
4,5,6.		

English I: Adversity, Conflict and Change					
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary	
MI GLCEs: R.CM.06-08.02 R.NT.06-08.05 R.NT.06-07.01 R.NT.08.03 R.WS.06-08.01 R.WS.06-08.02 R.WS.06-08.07 R.NT.06.04 R.NT.07.04 R.NT.07.04 R.NT.08.04 R.WS.08.07 R.NT.06-08.02 R.CM.06-08.01 CCSS: Reading Standards for Literature, 1-6, 7,9	<ul> <li>Cite textual evidence, to determine the central theme of a literary text.</li> <li>Decode new vocabulary based on connotation and denotation and analyze how they affect the overall meaning of the text.</li> <li>Compare multiple literary texts and describe how each uses language and the elements of literature to affect the reader.</li> <li>Identify and analyze stereotypes and distortions of gender, race, socioeconomics, etc.</li> <li>Read complex texts independently and proficiently.</li> </ul>	<ul> <li>Literary Analysis— Essay on Character</li> </ul>	Internet, Chromebook, Online presentation software	<ul> <li>Dynamic</li> <li>Static</li> <li>Point of View</li> <li>Antagonist</li> <li>Protagonist</li> <li>Narration</li> <li>Indirect and Direct Characterization</li> </ul>	

MI GLCEs: W.GN.06.02 , W.PR.06-08.04 W.PS.06-08.01 W.PR.06-08.02 W.PR.06-08.03 W.PR.06-08.03 W.PR.06-08.05 CCSS: Reading Informational Texts: 1- 6, 8,9,10 Writing: 1a,b,c,d,e; 4,5	<ul> <li>Cite textual evidence that strongly supports a thesis.</li> <li>Analyze informational texts for how the author organizes and presents and argument and for the validity and appropriateness of the supports for the argument.</li> <li>Read complex texts independently and proficiently.</li> <li>Write a clear, persuasive argument.</li> <li>Use the writing process of editing and redrafting to improve writing and to collaborate with peers on good writing.</li> </ul>	<ul> <li>Policy Evaluation</li> <li>Problem/soluti on essay</li> </ul>	Newspapers	• Persuasion
MI GLCEs: W.GN.06.01 W.GN.07.01 W.GN.08.01 W.PS.06- 08.01, W.PS.06.01 <b>R.NT.06-08.05</b> <b>R.IT.06-08.04</b> <b>R.CS.06-8.01</b> <b>R.WS.06-08.02</b> <b>7</b> - analyze <b>8</b> - evaluate CCSS: Writing: 3a,b,c,d,e; 10 Vocabulary Acquisition and Use, 4a,b,c,d,e	<ul> <li>Write narratives to develop real experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</li> <li>Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters.</li> <li>Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.</li> <li>Provide a conclusion that follows from and reflects on the narrated experiences or events</li> </ul>	<ul> <li>Creative/Expressive Essay on Historical person</li> <li>Poetry Presentation</li> </ul>	Internet, Chromebook, Online presentation software	
MI GLCEs: W.GN.07.02 W.PS.06-08.01 W.PR.06-08.02 W.PR.06-08.04	<ul> <li>Write a research report using a wide variety of resources that includes appropriate organizational patterns (e.g., position statement/supporting evidence, problem statement/solution).</li> </ul>	<ul> <li>Research Report</li> </ul>	Internet Word processing	<ul> <li>Citations</li> <li>Documentation</li> <li>Sources</li> <li>plagiarism</li> </ul>

W.PR.06-08.03 W.PR.06-08.05 W.GN.07.03 W.GN.08.03 W.GN.07.02 R.NT.06-08.05 R.IT.06-	<ul> <li>Use a collaborative process to reflect on the qualitie of good writing to edit and improve essays</li> </ul>	25
08.04 R.CS.06-8.01 CCSS Writing: 2a,b,c,d,e; 4,5,6,7,8,9		
MI GLCEs: W.GR.06- 08.01, W.GR.06-08.01. W.SP.06-08.01 CCSS: Knowledge of Language 1,2,3	<ul> <li>Students will understand and use the following correctly: commas, semi-colons, end marks, apostrophes, quotation marks and italics/underlinin</li> <li>Students will understand, edit for, and explain subject/verb agreement; pronoun/antecedent agreement; appositives, infinitives and prepositiona phrases.</li> <li>Students will recognize and be able to label parts of speech within a sentence.</li> </ul>	<ul> <li>Unit Tests throughout</li> <li>Year Mid Term Exam</li> <li>Final Exam</li> <li>Mathematical Structure</li> <li>Final Exam</li> <li>Adjective</li> <li>Conjunction</li> <li>Interjection</li> <li>Preposition</li> <li>Antecedent</li> <li>Subject</li> <li>Predicate</li> </ul>
MI GLCEs: S.DS.06-08.01 , S.DS.06-08.03 , S.DS.06.02, L.CN.06- 08.02, L.CN.06.01, L.CN.08.01 , L.RP.06-08.01 , L.RP.06.04 , L.RP.07.04, L.RP.08.04, L.RP.06-07.07, L.CN.07.01	<ul> <li>Determine the best way to present information.</li> <li>Write and deliver a speech to convey information.</li> </ul>	<ul> <li>Portfolio</li> <li>Internet, Presentation</li> <li>Chromebook, Reflection</li> <li>Dnline</li> <li>Essay</li> <li>presentation</li> <li>software</li> </ul>

L.CN.08.01		
L.RP.06-08.05 ,		
7, 8		
L.RP.06.06		
L.RP.07-08.06		
CCSS: Standards for		
Speaking and		
Listening—		
Comprehension and		
Collaboration 1a.b.c.d,		
2,3,; Presentation of		
Knowledge and Ideas		
4,5,6.		

## **Social Studies**

The Social Studies curriculum meets the requirements of the Michigan Merit Curriculum and seeks to prepare students to be active, informed and engaged citizens. The curriculum is project and research based to invite students to make connections between the past and their contemporary lives, to understand the implications of a new global economy, and to understand their place in a dynamic but shrinking globe. The goals of the Common Core State Standards are also realized as students apply literacy skills to complex, informative texts. Assessment is heavily dependent upon debate and students dialog about issues from all areas of the social studies curriculum. The goals and expectations, which are taken from the Michigan State Board of Education's Policy on Learning Expectations, are that students will be prepared to:

- Gather Information
- Understand Information
- Analyze Issues
- Draw and Justify Conclusions
- Organize and Communicate Information
- Think and Communicate Critically
- Learn and Consider Issues Collaboratively
- Learn Independently
- Create Knowledge
- Act Ethically

Additionally, the social studies courses are organized around a theme that carries into the science and English language arts courses, adding relevance and allowing for cross-curricular work. In all courses students will improve literacy using non-fiction texts from these areas and will focus their research papers on this theme with element from all areas. For example, students may look at environmental issues and their effect on the poor in particular.

The Social Studies curriculum moves in tandem with ELA, as it approaches history through particular thematic lenses. Readings in social studies will support the goals of increased content literacy, and will attempt to draw the connections between events from the past with their impact on current events. Students will use social studies content to drive their papers in their ELA classes.

Social Studies II—Social Justice					
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary	
Unit: Balance of Power: How have critical issues debated at the Constitutional Convention influenced government and policy throughout United States history? MI GLCES: 8 - U.3.3.7 8 - F1.3 8 - U3.3.1 8 - U3.3.2 8 - U3.3.3 8 - U3.3.3 8 - U3.3.4 8 - F1.2 8 - F1.2 8 - U3.3.1 8 - F1.2 8 - U3.3.4 8 - U3.3.4 8 - U3.3.4 8 - U3.3.6 8 - F.1.3 8 - U3.3.5	<ul> <li>Apply the natural rights philosophy and the social contract theory to examine the purposes of government and the meaning of a constitutional form of government.</li> <li>Examine how ideas from the Age of Enlightenment, the colonists' experiences with self- government, and the changing interactions with Great Britain resulted in the colonists' decision to declare independence.</li> <li>Analyze the reasons for the adoption and subsequent failure of the Articles of Confederation.</li> <li>Use primary and secondary sources to examine the issues debated at the Constitutional Convention and analyze how and</li> </ul>	<ul> <li>Coordinated essays with ELA</li> <li>Unit Tests</li> <li>In class projects</li> </ul>	A Brief Overview of the Supreme Court. The Supreme Court of the United States. 23 July 2008 < <u>http://www.supremecourtus.gov/about/bri</u> <u>efoverview.pdf</u> >. The Constitution and the Federal Judiciary. Understanding the Federal Courts. 23 July 2008 < <u>http://www.uscourts.gov/understand03/co</u> <u>ntent 1 0.html</u> >. Constitutional Topic: Articles of Confederation. The United States Constitution Online. 23 July 2008 < <u>http://www.usconstitution.net/consttop_a</u> <u>rti.html</u> >. The Court and Constitutional Interpretation. The Supreme Court of the United States. 9 May 2008 < <u>http://a257.g.akamaitech.net/7/257/2422/</u> <u>14mar20010800/www.supremecourtus.gov/</u> <u>about/constitutional.pdf</u> >.	<ul> <li>Articles of Confederation</li> <li>Declaration of Independence</li> <li>distribution of power</li> <li>federalism</li> <li>Federalists/Anti- Federalists</li> <li>individual rights</li> <li>limited government</li> <li>philosophical and historical origins of the Constitution</li> <li>popular sovereignty</li> <li>primary and secondary sources</li> <li>right of revolution</li> </ul>	

<ul> <li>why the Framers resolved or compromised major concerns.</li> <li>Examine the structure and functioning of the United States government under the Constitution through the principles of checks and balances, separation of powers, federalism, limited government, and popular sovereignty.</li> <li>Investigate the branches of government with particular focus on the powers, limits, structure, and function of each, students learn how the Constitution dramatically increased the powers of the central government in comparison to the Articles of Confederation.</li> <li>Examine reasons for the inclusion of the Bill of Rights by exploring the arguments of the Federalists and Anti-Federalists over ratification of the Constitution.</li> </ul>		Debates in the Federal Convention of 1787         reported by James Madison: June 18. Avalon         Project at Yale Law School. 23 July 2008 <www.yale.edu 61<="" avalon="" debates="" lawweb="" td="">         8.htm&gt;.         The Executive Branch – Presidency. Congress         for Kids. The Dirksen Center. 23 July 2008         <http: executive<="" td="" www.congressforkids.net="">         branch_president.htm&gt;.         The Federal Courts and American         Government. Understanding the Federal         Courts. 23 July 2008         <http: co<="" td="" understand03="" www.uscourts.gov="">         ntent_2_0.html&gt;.         The Great Compromise. Congress for Kids. 23         July 2008         <http: constituti<="" td="" www.congressforkids.net="">         on_greatcompromise.htm&gt;.</http:></http:></http:></www.yale.edu>	<ul> <li>rule of law</li> <li>U.S. Constitution and Bill of Rights</li> </ul>
• Explore the development of foreign policy, economic policy, politics, and early expansion that transformed the United States as a nation from the time of George Washington's inauguration to the Monroe Doctrine. Examine and evaluate the economic policies proposed by Jefferson and	<ul> <li>Unit Tests</li> <li>In class projects</li> </ul>	Binder, Frederick M., and David M. Reimers. <i>The Way We Lived: Essays and Documents in</i> <i>American Social History. Vol. 1: 1607-1877.</i> Boston: Houghton Mifflin, 1988. 140-62. <i>Constitutionality of the National Bank:</i> <i>Alexander Hamilton.</i> American Patriot Network. 23 July 2008 < <u>http://www.civil-</u> <u>liberties.com/cases/nat_bank2.html</u> >. <i>Constitutionality of the National Bank:</i>	<ul> <li>domestic policy</li> <li>federalism</li> <li>foreign policy</li> <li>growing independence of US foreign policy</li> <li>judicial review</li> <li>national economic policy</li> </ul>
	<ul> <li>why the Framers resolved or compromised major concerns.</li> <li>Examine the structure and functioning of the United States government under the Constitution through the principles of checks and balances, separation of powers, federalism, limited government, and popular sovereignty.</li> <li>Investigate the branches of government with particular focus on the powers, limits, structure, and function of each, students learn how the Constitution dramatically increased the powers of the central government in comparison to the Articles of Confederation.</li> <li>Examine reasons for the inclusion of the Bill of Rights by exploring the arguments of the Federalists and Anti-Federalists over ratification of the Constitution.</li> <li>Explore the development of foreign policy, economic policy, politics, and early expansion that transformed the United States as a nation from the time of George Washington's inauguration to the Monroe Doctrine. Examine and evaluate the economic policies proposed by Jefferson and Hamilton and explore how these</li> </ul>	<ul> <li>why the Framers resolved or compromised major concerns.</li> <li>Examine the structure and functioning of the United States government under the Constitution through the principles of checks and balances, separation of powers, federalism, limited government, and popular sovereignty.</li> <li>Investigate the branches of government with particular focus on the powers, limits, structure, and function of each, students learn how the Constitution dramatically increased the powers of the central government in comparison to the Articles of Confederation.</li> <li>Examine reasons for the inclusion of the Bill of Rights by exploring the arguments of the Federalists and Anti-Federalists over ratification of the Constitution.</li> <li>Explore the development of foreign policy, economic policy, politics, and early expansion that transformed the United States as a nation from the time of George Washington's inauguration to the Monroe Doctrine. Examine and evaluate the economic policies proposed by Jefferson and Hamilton and explore how these</li> </ul>	<ul> <li>Why the Framer's resolved or compromised major concerns.</li> <li>Examine the structure and functioning of the United States government under the Constitution through the principles of checks and balances, separation of powers, federalism, limited government, and popular sovereignty.</li> <li>Investigate the branches of government with particular focus on the powers, limits, structure, and function of each, students learn how the Constitution of each, students learn how the Constitution of the Constitution of the Bill of Rights by exploring the arguments of the Federalists and Anti-Federalists or the inclusion of the Bill of Rights by exploring the arguments of the Federalists and Anti-Federalists over ratification of the Constitution.</li> <li>Examine reasons for the inclusion of the Bill of Rights by exploring the arguments of the Federalists and Anti-Federalists and Anti-Federalists and Anti-Federalists over ratification of the Constitution.</li> <li>Explore the development of foreign policy, economic policy, politics, and early expansion that transformed the United States as a nation from the time of George Washington's inauguration to the Monroe Doctrine. Examine and evaluate the economic policies proposed by Jefferson and Hamilton and explore how these</li> </ul>

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IVIT LCES.	the vice of a clitical neutice	liberties.com/cases/nat_bank1.html>.	• political connect
8-04.1.3:	the rise of political parties.		<ul> <li>political parties</li> </ul>
8 – U4.1.3	• Assess the impact of the Marshall	Establishing Precedents: Webisode 7.	<ul> <li>transition of</li> </ul>
8 – U4.1.1:	Court on the power of federal	Freedom A History of US. PBS. 23 July 2008	political power
8 – U4.1.1:	and state governments.	< <u>http://www.pbs.org/wnet/historyofus/web</u>	<ul> <li>treaty</li> </ul>
8 – U4.1.2:	<ul> <li>Evaluate America's changing</li> </ul>	02/segment7.html>.	
8 – U4.1.3	relationship with other nations,		
	and use evidence of treaties,	"Farewell Address." Farewell Address 1796.	
	wars, and policy decisions to	Claremont Institute 23 July 2008	
	support their positions	<a href="http://www.pbs.org/georgewashington/mil">http://www.pbs.org/georgewashington/mil</a>	
	<ul> <li>Explore the tensions caused by</li> </ul>	estones/farewell address about.html	
	the constraint and balancing of	"Farewell Address." Rediscovering George	
	the separating and parameters	Washington. PBS.Org. Claremont Institute.	
	power within and among central	2002. 23 July 2008	
	and state governments and the	< <u>http://www.pbs.org/georgewashington/mil</u>	
	people, as well as those derived	estones/fareweil address read.ntml>.	
	from the competing interests of	Hakim Joy The New Nation New York	
	liberty and security in both	Oxford Press, 1999. 24-29.	
	historical and contemporary		
	times	Horizons. United States History: Beginnings.	
		Orlando: Harcourt School Publishers, 2003.	
		374-379 (or other similar textbooks).	
		Inaugural Addresses of the Presidents of the	
		United States: George Washington to George	
		W. Bush. Bartleby.com. 23 July 2008	
		< <u>http://www.bartleby.com/124/</u> >.	
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		Summary and Questions. Landmark	
		Cases.Org. Supreme Court Historical Society	
		and Street Law. 23 July 2008	
		< <u>nttp://www.iandmarkcases.org/mcculloch/</u> background1.html>	
		Dackgrounut.ntm.	
		McCulloch v. Marvland (1819): Kev Excerpts	
		from the Opinion. Landmarkcases.org.	
		Supreme Court Historical Society and Street	
		Law. 23 July 2008	

	< <u>http://www.landmarkcases.org/mcculloch/</u> opinion.html>.	
	President Elect. Presidentelect.org. 6 Jan. 2005. 23 July 2008	
	< <u>http://presidentelect.org/index.html</u> >.	
	"Whiskey Rebellion." Social Studies for Kids. 23 July 2008	
	< <u>http://www.socialstudiesforkids.com/www</u> w/us/whiskeyrebelliondef.htm>.	
	<u>Teacher Resource</u> Bergen, Paul, ed. "United States Historical Census Data Browser." 24 Mar. 1998. <i>University of Virginia Library.</i> 23 July 2008 < <u>http://fisher.lib.virginia.edu/collections/sta</u> <u>ts/histcensus/</u> >.	
	Blohm, Craig E. "Old Ironsides: America's Fighting Lady." <i>Cobblestone: The History Magazine for Young People.</i> Vol. 9. No. 1. Peterborough, NH: Cobblestone Publishing, 1988. 14-18.	
	Cababe Louise D., et al. <i>U.S. History Book 1 – Beginnings to 1876.</i> Rocky River, OH: Center for Learning, 1997. 93-105.	
	Davidson, James West, et al. <i>The American</i> <i>Nation: Teacher's Edition</i> . Upper Saddle River, NJ: Prentice Hall, 2000. 168-247, 660- 70.	
	"Effects of Taxes." MSN Encarta Online Encyclopedia. Microsoft. 2004. 23 July 2008 < <u>http://encarta.msn.com/encyclopedia_761</u> <u>573037_3/Taxation.html#endads</u> >.	
	The Evils of Necessity: A Time Line of the National Bank. American Patriot Network. 23	

			July 2008 < <u>http://www.civil-</u> liberties.com/cases/bank.html>.	
Unit: Movement of People: Public policy issues related to the movement of people into and within the United States. MI GLCEs: 8 – U4.2.1 8 – U4.2.2: 8 – U4.2.3 8 – U4.2.4 8 – U4.1.2: HS - F1.1	<ul> <li>Explore the differences in the development of the Northeast, South, and West during the antebellum period.</li> <li>Examine how industrialization, westward movement, and the rapid expansion of slavery affected Americans prior to the Civil War</li> <li>Analyze primary sources to explore the early industrial revolution with a specific emphasis on the factory system in Lowell, Massachusetts. Compare the economic development of the North and South.</li> <li>Explore the extension of democracy and Native American removal during the Age of Jackson.</li> <li>Explore how Jackson used the power of the presidency to attack the Bank of the United States and its favoritism toward the wealthy elite.</li> </ul>	<ul> <li>Unit Tests</li> <li>In class projects</li> </ul>	July 2008 < <u>http://www.civil-</u> <u>liberties.com/cases/bank.html</u> >. Andrew Jackson. From Revolution to Reconstruction. 23 July 2008 < <u>http://www.let.rug.nl/~usa/P/aj7/abo</u> <u>ut/bio/jackxx.htm</u> >. "The Conflicts Between Pioneers and Native Americans: Diary Two," and "The Pioneer Fears of Native Americans: Diary Four," "In the Words of a Native American: Diary Five." As the Wind Rocks the Wagon. AIMS Multimedia. 1993. United Streaming. 23 July 2008 < <u>http://www.unitedstreaming.com/</u> >. End of the Oregon Trail. End of the Oregon Trial Interpretive Center. 23 July 2008 < <u>http://www.endoftheoregontrail.org</u> >. <u>Gold Rush! - California's Untold Stories</u> . Oakland Museum of California. 23 July 2008 < <u>http://www.museumca.org/goldrush/</u> >. The Gold Rush. 23 July 2008 < <u>http://www.isu.edu/~trinmich/home.h</u> <u>tml</u> >.	<ul> <li>expansionism</li> <li>free vs. slaveholding states</li> <li>immigration</li> <li>industrialization</li> <li>institution of slavery</li> <li>Jacksonian Democracy</li> <li>Manifest Destiny</li> <li>Nativism</li> <li>regionalism</li> <li>removal of American Indians</li> <li>social class</li> <li>technological change</li> </ul>
	<ul> <li>elite.</li> <li>Evaluate how the Age of Jackson moved American society both toward and away from its core ideals.</li> </ul>		Growth of a Nation Part I. Animated Atlas of American History. 23 July 2008 < <u>http://www.animatedatlas.com/movie</u> 2.html>.	

	<ul> <li>Develop an argument based on evidence about the positive and negative consequences of territorial and economic expansion on American Indians, the institution of slavery, and the relations between free and slaveholding states and extrapolate how these policies influence policy today.</li> </ul>		"Introducing Andrew Jackson." America's Era of Expansion and Reform, 1817-1860: America Under Andrew Jackson, 1829-1836: The Indian Removal Act, The Nullification Crisis, The Battle of the Alamo. United Learning. 2003. 23 July 2008 < <u>http://www.unitedstreaming.com/</u> >. Living History: Living During the Industrial Revolution. United Learning. 2003. United Streaming. 23 July 2008 < <u>http://www.unitedstreaming.com/</u> >.	
Unit: Government and Social Change What role should governmental policies play in affecting social change? 8 – U4.3.1: 8 – U4.3.2: 8 – U4.3.3: 8 – U4.3.4: 8 – U4.3.5: 8 – P3.1.1: 8 – P4.2.1: 8 – P4.2.2: 8 – P4.2.3	<ul> <li>Explore the growth of reform movements and their consequences during the antebellum period.</li> <li>Examine the origin and character of a variety of reform movements including education, abolition, women's rights, and temperance.</li> <li>Assess the role of religion and democratic ideals in each reform movement.</li> <li>Analyze the contradictions between the movement for universal white male suffrage and the disenfranchisement of free African American men and all women.</li> <li>Investigate a contemporary national public policy issue and its relationship to religion and/or democratic ideals.</li> </ul>	<ul> <li>Unit Tests</li> <li>In class projects</li> </ul>	Ardent Spirits: The Origins of the American Temperance Movement. The Journal of Multi-Media History. Vol. 2, 1999. Library Company of Philadelphia. 24 July 2008 <http: jmmh="" spi<br="" vol2no1="" www.albany.edu="">rits.html&gt;. Horace Mann. University of Notre Dame. 24 July 2008 <http: mann<br="" www.nd.edu="" www7="" ~rbarger="">.html&gt;. Moral Reform, 1820-1860. Digital History. 24 July 2008 <http: database<br="" www.digitalhistory.uh.edu="">/article_display.cfm?HHID=624&gt;. Pre-Civil War Reform Websites. 24 July 2008 <http: <br="" modules="" www.digitalhistory.uh.edu="">precivilwar/links.cfm&gt;. Pre-Civil War Reform. The Gilder Lehrman Institute. 24 July 2008 <http: m<br="" teachers="" www.gilderlehrman.org="">odule6/index.html&gt;.</http:></http:></http:></http:></http:>	<ul> <li>abolition</li> <li>antebellum reformers</li> <li>compulsory public education</li> <li>democratic ideals</li> <li>reform</li> <li>religion</li> <li>temperance</li> <li>women's rights</li> </ul>

## World Language

Students have an opportunity to begin foreign language in 7<sup>th</sup> and 8<sup>th</sup> prior to high school foreign language courses. The junior high survey course aims to give students a foundation for foreign language study; introducing basic phrases in a number of languages in order to sharpen listening skills and familiarize students with the notion that thoughts can be expressed in another language. The students will move from analyzing the structure of the English language to the study of today's languages and their origins. Typically, the first semester covers English grammar, Latin and Spanish. The second semester is often followed with Italian, German, and Japanese.

World Language					
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary	
STRAND 1: COMMUNICATION Communicate in World Languages: Interpersonal 1.1 Interpretive 1.2 Presentational 1.3	<ul> <li>Students engage in conversations, provide and obtain information, express feelings and emotions and exchange opinions.</li> <li>Students understand and interpret written and spoken language on a variety of topics.</li> <li>Students present information, concepts, and ideas to an audience of listeners on a variety of topics.</li> </ul>	<ul> <li>Skits for all odd chapters</li> <li>Presentation project for all even chapters</li> <li>Written expression exams every four chapters</li> <li>Reading comprehensio n tasks at end</li> </ul>	Textbook Realia Public Media Students' own info & interests	<ul> <li>Characteristics</li> <li>Family &amp; Home</li> <li>School</li> <li>Traveling</li> <li>Clothing</li> <li>Passtimes &amp; Sports</li> <li>Health &amp; Medicine</li> <li>Camping</li> <li>Entertainment &amp; Media</li> </ul>	

STRAND 2: CULTURE Gain Knowledge and Understanding of Other Cultures: Practices and Perspectives 2.1 Products and Perspectives 2.2	<ul> <li>Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied.</li> <li>Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied.</li> </ul>	<ul> <li>of each chapter</li> <li>Skits for all odd chapters</li> <li>Presentation project for all even chapters</li> <li>Written expression exams every four chapters</li> <li>Reading comprehensio n tasks at end of each chapter</li> </ul>	Textbook Realia Public Media Students' own info & interests	<ul> <li>Characteristics</li> <li>Family &amp; Home</li> <li>School</li> <li>Traveling</li> <li>Clothing</li> <li>Passtimes &amp; Sports</li> <li>Health &amp; Medicine</li> <li>Camping</li> <li>Entertainment &amp; Media</li> </ul>
STRAND 3: CONNECTIONS Connect with Other Disciplines and Acquire Information Knowledge 3.1 Point of View 3.2	<ul> <li>Students reinforce and further their knowledge of other disciplines through the world language.</li> </ul>	<ul> <li>Cross- curricular reading and discussion at end of each chapter</li> </ul>	Textbook Realia Public Media Students' own info & interests	<ul> <li>Characteristics</li> <li>Family &amp; Home</li> <li>School</li> <li>Traveling</li> <li>Clothing</li> <li>Passtimes &amp; Sports</li> <li>Health &amp; Medicine</li> <li>Camping</li> <li>Entertainment &amp; Media</li> </ul>
STRAND 4: COMPARISONS Develop Insight into the Nature of Language and	<ul> <li>Students demonstrate understanding of the nature of language through comparisons of the language studied</li> <li>Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.</li> </ul>	<ul> <li>Presentation project for all even chapters</li> <li>Written expression</li> </ul>	Textbook Realia Public Media Students' own info	<ul> <li>Characteristics</li> <li>Family &amp; Home</li> <li>School</li> <li>Traveling</li> <li>Clothing</li> </ul>

Culture Comparing Languages 4.1 Comparing Cultures 4.2		<ul> <li>exams events</li> <li>four chapter</li> <li>Reading</li> <li>compreheed</li> <li>n tasks at</li> <li>of each</li> <li>chapter</li> </ul>	ery & ters interests ensio end	<ul> <li>Passtimes &amp; Sports</li> <li>Health &amp; Medicine</li> <li>Camping</li> <li>Entertainment &amp; Media</li> </ul>
STRAND 5: COMMUNITIES Participate in Multilingual Communities at Home and Around the World Use of Language 5.1 Personal Enrichment 5.2	<ul> <li>Students use the language both within and beyond the school setting.</li> <li>Students show evidence of becoming life-long learners by using the language for personal enjoyment and enrichment.</li> </ul>	<ul> <li>Connection with study personal interests</li> </ul>	on Textbook ents' Realia info & Public Media Students' own info & interests	<ul> <li>Characteristics</li> <li>Family &amp; Home</li> <li>School</li> <li>Traveling</li> <li>Clothing</li> <li>Pastimes &amp; Sports</li> <li>Health &amp; Medicine</li> <li>Camping</li> <li>Entertainment &amp; Media</li> </ul>

## Science

All the science courses are designed to meet the expectations of the Michigan Grade Level Content Expectations for 7<sup>th</sup> and 8th grade Curriculum as well as integrate standards from the Next Generation Science Standards Careful analysis standardized test items and test results drive the focus on data interpretation, study summary analysis and scientific methodology and application; thinking skills that are highly applicable to all areas of school and life.

Students focus on not only scientific concepts but also what it means to think like a scientist and use scientific processes and reasoning. The junior high courses cycle students through two courses—the first of which focuses on the Grade Level Content Expectations for Grade Seven from Physical Science and Life Science, and a second course that covers the High School Content Expectations for Earth Science. Students who complete both seventh and eighth grade will not only be securely grounded in the processes of scientific inquiry but will also earn high school credit for Earth Science. It is the goal of FlexTech Shepherd to approach science in depth rather than breadth and will use these two crucial years to establish the critical thinking that is the hallmark of effective scientists. Students will understand how scientists draw conclusions; will understand when evidence is valid and reliable, and when definite conclusions cannot be drawn. These skills are those that will most serve students in high school, on the SAT exam, in college and in life in all areas of decision-making. Junior high science courses, when applicable, participate in the integrated projects with English, social studies, mathematics and art and therefore approaches the same themes when possible, allowing for more real world connections to be made in the science classroom.

	Earth			
Benchmarks/Cours e Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructiona I Resources	Vocabulary
MI Earth Science HSCE's addressed: E1.1B E1.2A E1.2B E1.2C E1.2E E1.2g E1.2j E1.2k E2.1B E2.1C E2 E2.3c E2.3d E3.3B	<ul> <li>Evaluate the uncertainties or validity of scientific conclusions using an understanding of sources of measurement error, the challenges of controlling variables, accuracy of data analysis, logic of argument, logic of experimental design, and/or the dependence on underlying assumptions.</li> <li>Critique whether or not specific questions can be answered through scientific investigations.</li> <li>Identify and critique arguments about personal or societal issues based on scientific concept by accessing information from multiple sources. Evaluate the scientific accuracy and significance of the information.</li> <li>Evaluate the future career and occupational prospects of science fields.</li> <li>Identify scientific tradeoffs in design decisions and choose among alternative solutions.</li> <li>Apply science principles or scientific data to anticipate effects of technological design decisions.</li> </ul>	<ul> <li>Unit Tests</li> <li>Cumulative Exams</li> <li>Projects</li> </ul>	Internet, Chromebook, <u>https://www.ns</u> <u>f.gov/news/clas</u> <u>sroom/earth-</u> <u>environ.jsp</u> <u>https://geol</u> <u>ogy.com/te</u> <u>acher/</u>	<ul> <li>biogeochemical cycles</li> <li>biosphere</li> <li>climatology</li> <li>earth science</li> <li>earth system science</li> <li>fluid earth</li> <li>geology</li> <li>hydrogeology</li> <li>meteorology</li> <li>solid earth</li> <li>watershed</li> </ul>

	<ul> <li>Analyze the interactions between the major systems (geosphere, atmosphere, hydrosphere, biosphere) that make up the Earth.</li> <li>Explain, using specific examples, how a change in one system affects other Earth systems.</li> <li>Explain how carbon exists in different forms such as limestone (rock), carbon dioxide (gas), carbonic acid (water), and animals (life) within Earth systems and how those forms can be beneficial or harmful to humans.</li> <li>Explain how carbon moves through the Earth system.</li> <li>Explain how carbon moves through the Earth system (including the geosphere) and how it may benefit (e.g., improve soils for agriculture) or harm (e.g., act as a pollutant) society.</li> <li>Explain why tectonic plates move using the concept of heat flowing through mantle convection, coupled with the cooling and sinking of aging ocean plates that rought for the provide the provid</li></ul>			
Explain how the transference and transformation of energy drive weather and climatic processes on Earth? MI Earth Science HSCE's addressed: E1.1A E1.1C E1.1D E1.1E E1.1h	<ul> <li>Generate new questions that can be investigated in the laboratory or field.</li> <li>Conduct scientific investigations using appropriate tools and techniques (e.g., selecting an instrument that measures the desired quantity—length, volume, weight, time interval, temperature—with the appropriate level of precision).</li> <li>Identify patterns in data and relate them to theoretical models.</li> <li>Describe a reason for a given conclusion using evidence from an investigation.</li> <li>Design and conduct a systematic scientific investigation that tests a hypothesis. Draw</li> </ul>	<ul> <li>Unit Tests</li> <li>Cumulative Exams</li> <li>Projects</li> </ul>	Internet, Chromebook, <u>https://www.ns</u> <u>f.gov/news/clas</u> <u>sroom/earth- environ.jsp</u> <u>https://geol</u> <u>ogy.com/te</u> <u>acher/</u>	<ul> <li>climate</li> <li>global winds</li> <li>greenhouse effect</li> <li>heat transfer</li> <li>ocean currents</li> <li>solar radiation</li> <li>weather</li> <li>weather fronts</li> </ul>

		1		
E4.2A	conclusions from data presented in charts or			
E4.2B	tables.			
E4.2c	• Describe the major causes for the ocean's surface			
E4.2d	and deep water currents, including the prevailing			
E4.2e	winds, the Coriolis effect, unequal heating of the			
E4.2f	Earth, changes in water temperature and salinity in			
E5.4A	high latitudes, and basin shape.			
	• Explain how the interactions between the oceans			
	and the atmosphere influence global and regional			
	climate. Include the major concepts of heat			
	transfer by ocean currents, thermohaline			
	circulation, boundary currents, evaporation,			
	precipitation, climatic zones, and the ocean as a			
	major CO2 reservoir.			
	• Explain the dynamics (including ocean-atmosphere			
	interactions) of the El Nino-Southern Oscillation			
	(ENSO) and its effect on continental climates.			
	• Identify factors affecting seawater density and			
	salinity and describe how density affects oceanic			
	layering and currents.			
	• Explain the differences between maritime and			
	continental climates with regard to oceanic			
	currents.			
	• Explain how the Coriolis effect controls oceanic			
	circulation.			
	• Explain the natural mechanism of the greenhouse			
	effect including comparisons of the major			
	greenhouse gases (water vapor, carbon dioxide.			
	methane, nitrous oxide, and ozone).			
Explain how models	• Evaluate the uncertainties or validity of scientific	Unit Tests	Internet,	Biogeochemical
that depict the	conclusions using an understanding of sources of	<ul> <li>Cumulative</li> </ul>	Chromebook.	cycles
movement of	measurement error, the challenges of controlling	Exams	https://www.ns	Climate models
matter in	variables, accuracy of data analysis. logic of	<ul> <li>Projects</li> </ul>	f.gov/news/clas	Climatic trends
biogeochemical	, , ,	<b>,</b>	sroom/earth-	
0	1			

cycles help	argument logic of experimental design and/or the	environ isn
scientists research	dependence on underlying assumptions	https://geology
questions in the	<ul> <li>Identify natterns in data and relate them to</li> </ul>	com/teacher/
fluid Earth MI Earth	theoretical models.	
Science HSCE's	<ul> <li>Describe a reason for a given conclusion using</li> </ul>	
addressed:	evidence from an investigation.	
E1.1B	<ul> <li>Based on empirical evidence, explain and critique</li> </ul>	
E1.1D	the reasoning used to draw a scientific conclusion	
E1.1E	or explanation.	
E1.1g	• Distinguish between scientific explanations that are	
E1.1i	regarded as current scientific consensus and the	
E1.2A	emerging questions that active researchers	
E1.2B	investigate.	
E1.2C	• Critique whether or not specific questions can be	
E1.2D	answered through scientific investigations.	
E1.2f	Identify and critique arguments about personal or	
E1.2g	societal issues based on scientific evidence.	
E1.2h	• Develop an understanding of a scientific concept by	
E1.2i	accessing information from multiple sources.	
E1.2j	Evaluate the scientific accuracy and significance of	
E1.2k	the information.	
E2.1A	• Evaluate scientific explanations in a peer review	
E2.1B	process or discussion format.	
E2.1C	<ul> <li>Critique solutions to problems, given criteria and</li> </ul>	
E2.2e	scientific constraints.	
E2.3A	<ul> <li>Identify scientific tradeoffs in design decisions and</li> </ul>	
E2.3d	choose among alternative solutions.	
E5.4A	<ul> <li>Describe the distinctions between scientific</li> </ul>	
E5.4B	theories, laws, hypotheses, and observations.	
E5.4C	<ul> <li>Explain the progression of ideas and explanations</li> </ul>	
E5.4D	that lead to science theories that are part of the	
E5.4e	current scientific consensus or core knowledge.	
E5.4f	<ul> <li>Apply science principles or scientific data to</li> </ul>	
E5.4g	anticipate effects of technological design decisions.	

<ul> <li>Analyze how science and society interact from a</li> </ul>		
historical, political, economic, or social perspective.		
<ul> <li>Explain why the Earth is essentially a closed system</li> </ul>		
in terms of matter.		
<ul> <li>Analyze the interactions between the major</li> </ul>		
systems (geosphere, atmosphere, hydrosphere,		
biosphere) that make up the Earth.		
• Explain, using specific examples, how a change in		
one system affects other Earth systems.		
• Explain how energy changes form through Earth		
systems.		
• Explain how carbon exists in different forms such as		
limestone (rock), carbon dioxide (gas), carbonic		
acid (water), and animals (life within Earth systems		
and how those forms can be beneficial or harmful		
to humans.		
• Explain how carbon moves through the Earth		
system (including the geosphere) and how it may		
benefit (e.g., improve soils for agriculture) or harm		
(e.g., act as a pollutant) society.		
• Explain the natural mechanism of the greenhouse		
effect including comparisons of the major		
greenhouse gases (water vapor, carbon dioxide		
methane nitrous oxide and ozone)		
<ul> <li>Describe natural mechanisms that could result in</li> </ul>		
significant changes in climate (e.g. major volcanic		
eruntions changes in sunlight received by the		
Earth meteorite impacts)		
<ul> <li>Analyze the empirical relationship between the</li> </ul>		
emission of carbon dioxide atmospheric carbon		
dioxide levels and the average global temperature		
over the past 150 years		
<ul> <li>Based on evidence of observable changes in recent</li> </ul>		
<ul> <li>based on evidence of observable changes infecent history and climate change models, evident the</li> </ul>		
mistory and chinate change models, explain the		

	<ul> <li>consequences of warmer oceans (including the results of increased evaporation, shoreline and estuarine impacts, oceanic algae growth, and coral bleaching) and changing climatic zones (including the adaptive capacity of the biosphere).</li> <li>Based on evidence from historical climate research (e.g., fossils, varves, ice core data) and climate change models, explain how the current melting of polar ice caps can impact the climate system.</li> <li>Describe geological evidence that implies climates were significantly colder at times in the geologic record (e.g., geomorphology, striations, and fossils).</li> <li>Compare and contrast the heat trapping mechanisms of the major greenhouse gases resulting from emissions (carbon dioxide, methane, nitrous oxide, fluorocarbons) as well as their abundance and heat trapping capacity.</li> </ul>			
Explain how scientific research help societies manage resources and risks to human health and safety? MI Earth Science HSCE's addressed: E1.1A E1.1B E1.1C E1.1D E1.1E E1.1F	<ul> <li>Generate new questions that can be investigated in the laboratory or field.</li> <li>Evaluate the uncertainties or validity of scientific conclusions using an understanding of sources of measurement error, the challenges of controlling variables, accuracy of data analysis, logic of argument, logic of experimental design, and/or the dependence on underlying assumptions.</li> <li>Conduct scientific investigations using appropriate tools and techniques (e.g., selecting an instrument that measures the desired quantity—length, volume, weight, time interval, temperature—with the appropriate level of precision).</li> </ul>	<ul> <li>Unit Tests</li> <li>Cumulative Exams</li> <li>Projects</li> </ul>	Internet, Chromebook, <u>https://www.ns</u> <u>f.gov/news/clas</u> <u>sroom/earth-</u> <u>environ.jsp</u> <u>https://geology.</u> <u>com/teacher/</u>	<ul> <li>Biogeochemical Cycles</li> <li>Ground Water</li> <li>Land Use</li> <li>Surface Water</li> <li>Sustainability</li> <li>Water Cycle</li> <li>Water Quality</li> <li>Water Quantity</li> </ul>

E1.1g	<ul> <li>Identify patterns in data and relate them to</li> </ul>
E1.1h	theoretical models.
E1.1i	<ul> <li>Describe a reason for a given conclusion using</li> </ul>
F1.2B	evidence from an investigation.
F1.2C	<ul> <li>Predict what would happen if the variables.</li> </ul>
F1.2D	methods, or timing of an investigation were
E1.2f	changed.
E2.3b	<ul> <li>Based on empirical evidence, explain and critique</li> </ul>
E2.3c	the reasoning used to draw a scientific conclusion
E4.1A	or explanation.
E4.1B	<ul> <li>Design and conduct a systematic scientific</li> </ul>
E4.1C	investigation that tests a hypothesis. Draw
-	conclusions from data presented in charts or
	tables.
	<ul> <li>Distinguish between scientific explanations that are</li> </ul>
	regarded as current scientific consensus and the
	emerging questions that active researchers
	investigate.
	<ul> <li>Identify and critique arguments about personal or</li> </ul>
	societal issues based on scientific evidence.
	<ul> <li>Develop an understanding of a scientific concept by</li> </ul>
	accessing information from multiple sources.
	Evaluate the scientific accuracy and significance of
	the information.
	Evaluate scientific explanations in a peer review
	process or discussion format.
	Critique solutions to problems, given criteria and
	scientific constraints.
	Explain why small amounts of some chemical forms
	may be beneficial for life but are poisonous in large
	quantities (e.g., dead zone in the Gulf of Mexico,
	Lake Nyos in Africa, fluoride in drinking water).
	Explain how the nitrogen cycle is part of the Earth
	system.

E2.4A	Describe the distinctions between scientific
E2.4B	theories, laws, hypotheses, and observations.
E2.4c	Explain the progression of ideas and explanations
E2.4d	that lead to science theories that are part of the
	current scientific consensus or core knowledge.
	Apply science principles or scientific data to
	anticipate effects of technological design decisions.
	Analyze how science and society interact from a
	historical, political, economic, or social perspective.
	<ul> <li>Identify differences in the origin and use of</li> </ul>
	renewable (e.g., solar, wind, water, biomass) and
	nonrenewable (e.g., fossil fuels, nuclear [U-235])
	sources of energy.
	• Explain how energy changes form through Earth
	systems.
	• Explain how elements exist in different compounds
	and states as they move from one reservoir to
	another.
	Describe renewable and nonrenewable sources of
	energy for human consumption (electricity, fuels),
	compare their effects on the environment, and
	include overall costs and benefits.
	• Explain how the impact of human activities on the
	environment (e.g., deforestation, air pollution,
	coral reef destruction) can be understood through
	the analysis of interactions between the four Earth
	systems.
	Explain ozone depletion in the stratosphere and
	methods to slow human activities to reduce ozone
	depletion.
	Describe the life cycle of a product, including the
	resources, production, packaging, transportation,
	disposal, and pollution.

Explain how	<ul> <li>Identify patterns in data and relate them to</li> </ul>	Unit Tests	Internet,	<ul> <li>Asthenosphere</li> </ul>
scientific models	theoretical models.	<ul> <li>Cumulative</li> </ul>	Chromebook,	<ul> <li>Continental</li> </ul>
used to explain and	• Distinguish between scientific explanations that are	Exams	https://www.ns	crust
predict Earth	regarded as current scientific consensus and the	<ul> <li>Projects</li> </ul>	f.gov/news/clas	<ul> <li>Convection</li> </ul>
phenomena? MI	emerging questions that active researchers		sroom/earth-	<ul> <li>Crust</li> </ul>
Earth Science	investigate.		environ.jsp	<ul> <li>Earthquakes</li> </ul>
HSCE's addressed:	Critique whether or not specific questions can be		https://geol	<ul> <li>Inner core</li> </ul>
E1.1D	answered through scientific investigations.		ogy.com/te	<ul> <li>Lithosphere</li> </ul>
E1.1i	• Develop an understanding of a scientific concept by		<u>acher/</u>	<ul> <li>Lower mantle</li> </ul>
E1.2A	accessing information from multiple sources.			<ul> <li>Magnetic field</li> </ul>
E1.2C	Evaluate the scientific accuracy and significance of			<ul> <li>Mantle</li> </ul>
E1.2i	the information.			Convection
E2.2C	• Explain the progression of ideas and explanations			Oceanic crust
E3.2A	that lead to science theories that are part of the			Outer core
E3.2B	current scientific consensus or core knowledge.			Seismic waves
E3.2C	• Describe natural processes in which heat transfer in			<ul> <li>Upper mantle</li> </ul>
E3.2d	the Earth occurs by conduction, convection, and			
E3.1A	radiation.			
	• Describe the interior of the Earth (in terms of crust,			
	mantle, and inner and outer cores) and where the			
	magnetic field of the Earth is generated.			
	• Explain how scientists infer that the Earth has			
	internal layers with discernable properties using			
	patterns of primary (P) and secondary (S) seismic			
	wave arrivals			
	• Describe the differences between oceanic and			
	continental crust (including density, age			
	composition).			
	• Explain the uncertainties associated with models of			
	the interior of the Earth and how these models are			
	validated.			
	<ul> <li>Discriminate between igneous, metamorphic, and</li> </ul>			
	sedimentary rocks and describe the processes that			
	change one kind of rock into another			
	change one kind of rock into another.			

Explain how	<ul> <li>Identify patterns in data and relate them to</li> </ul>	Unit Tests	Internet,	Continental
scientific models	theoretical models	<ul> <li>Cumulative</li> </ul>	Chromeboo	collision
built and used to	Describe a reason for a given conclusion using	Exams	k,	<ul> <li>Crust</li> </ul>
explain and predict	evidence from an investigation.	<ul> <li>Projects</li> </ul>	https://ww	<ul> <li>Driving force</li> </ul>
phenomena of the	Based on empirical evidence, explain and critique		<u>w.nsf.gov/n</u>	<ul> <li>Earthquakes</li> </ul>
solid Earth?	the reasoning used to draw a scientific conclusion		ews/classro	<ul> <li>Lithosphere</li> </ul>
<b>MI Earth Science</b>	or explanation.		om/earth-	<ul> <li>Mid-ocean</li> </ul>
HSCE's addressed:	• Distinguish between scientific explanations that are		environ.jsp	ridges
E3.4e	regarded as current scientific consensus and the		https://geol	<ul> <li>Mountain</li> </ul>
E3.4d	emerging questions that active researchers		ogy.com/te	ranges
E3.4C	investigate.		acher/	Oceanic plates
E3.4B	• Evaluate the future career and occupational			Plate tectonics
E3.4A	prospects of science fields.			theory
E3.3d	Describe the distinctions between scientific			Sea floor
E3.3B	theories, laws, hypotheses, and observations.			spreading
E3.3A	• Explain the progression of ideas and explanations			<ul> <li>Subduction</li> </ul>
E3.1d	that lead to science theories that are part of the			zones
E3.1c	current scientific consensus or core knowledge.			Transform
E3.1B	Analyze the interactions between the major			faults
E3.1A	systems (geosphere, atmosphere, hydrosphere,			<ul> <li>Volcanoes</li> </ul>
E2.1C	biosphere) that make up the Earth.			
E2.1B	• Explain, using specific examples, how a change in			
E1.2i	one system affects other Earth systems.			
E1.2h	• Discriminate between igneous, metamorphic, and			
E1.2E	sedimentary rocks and describe the processes that			
E1.1i	change one kind of rock into another.			
E1.1g	• Explain the relationship between the rock cycle and			
E1.1E	plate tectonics theory in regard to the origins of			
E1.1D	igneous, sedimentary, and metamorphic rocks.			
	• Explain how the size and shape of grains in a			
	sedimentary rock indicate the environment of			
	formation (including climate) and deposition.			

	<ul> <li>Explain how the crystal sizes of igneous rocks indicate the rate of cooling and whether the rock is extrusive or intrusive.</li> <li>Explain how plate tectonics accounts for the features and processes (sea floor spreading, midocean ridges, subduction zones, earthquakes and volcanoes, mountain ranges) that occur on or near the Earth's surface.</li> <li>Explain why tectonic plates move using the concept of heat flowing through mantle convection, coupled with the cooling and sinking of aging ocean plates that results from their increased density.</li> <li>Distinguish plate boundaries by the pattern of depth and magnitude of earthquakes and volcanoes to locate and determine the types of plate boundaries.</li> <li>Describe how the sizes of earthquakes and volcanic eruptions on humans.</li> <li>Explain how the chemical composition of magmas relates to plate tectonics and affects the geometry, structure, and explosivity of volcanoes.</li> </ul>			
	<ul> <li>structure, and explosivity of volcanoes.</li> <li>Explain how volcanoes change the atmosphere, hydrosphere, and other Earth systems.</li> </ul>			
Explain how an understanding of natural processes enable scientists to discern sequences of events and rates of change? MI	<ul> <li>Evaluate the uncertainties or validity of scientific conclusions using an understanding of sources of measurement error, the challenges of controlling variables, accuracy of data analysis, logic of argument, logic of experimental design, and/or the dependence on underlying assumptions.</li> </ul>	<ul> <li>Unit Tests</li> <li>Cumulative Exams</li> <li>Projects</li> </ul>	Internet, Chromeboo k, <u>https://ww</u> <u>w.nsf.gov/n</u> <u>ews/classro</u>	<ul> <li>Absolute Age Dating</li> <li>Index Fossils</li> <li>Relative Age Dating</li> <li>Relative Motion</li> </ul>

Earth Science	• Distinguish between scientific explanations that are		om/earth-	Stratigraphic
HSCE's addressed:	regarded as current scientific consensus and the		environ.isp	Principles
F1.1B	emerging questions that active researchers		https://geol	
F1.1i	investigate		ogy.com/te	
F3.3C	<ul> <li>Describe the motion history of geologic features</li> </ul>		acher/	
F5 3B	(e.g. nlates Hawaii) using equations relating rate			
E5.30	time and distance			
E5.30	<ul> <li>Explain the process of radioactive decay and</li> </ul>			
E5.30	explain how radioactive elements are used to date			
E5.3C	the rocks that contain them			
E5.3g	<ul> <li>Polate major events in the history of the Earth to</li> </ul>			
LJ.Jg	the geologic time scale, including formation of the			
	Earth formation of an ovygon atmosphere, rise of			
	life Crotaceous Tertian (K T) and Dermian			
	avtinctions, and Disistosona isa ago			
	<ul> <li>Describe how index fossils can be used to</li> </ul>			
	Describe now index rossils can be used to			
	Determine the engravimete and of a semple when			
	• Determine the approximate age of a sample, when			
	given the half-life of a radioactive substance (in			
	graph or tabular form) along with the ratio of			
	daughter to parent substances present in the			
	sample.			
	• Explain why C-14 can be used to date a 40,000 year			
	old tree but U-Pb cannot.			
	<ul> <li>Identify a sequence of geologic events using</li> </ul>			
	relative-age dating principles.			
Explain how ideas	<ul> <li>Identify patterns in data and relate them to</li> </ul>	Unit Tests	Internet,	Big Bang
in modern physics	theoretical models.	<ul> <li>Cumulative</li> </ul>	Chromeboo	Theory
provide tools to	Based on empirical evidence, explain and critique	Exams	k,	Cosmic
study Earth and the	the reasoning used to draw a scientific conclusion	<ul> <li>Projects</li> </ul>	https://ww	background
universe? MI Earth	or explanation.		w.nsf.gov/n	radiation
Science HSCE's	<ul> <li>Distinguish between scientific explanations that</li> </ul>		ews/classro	<ul> <li>Cosmological</li> </ul>
addressed:	are regarded as current scientific consensus and		om/earth-	red shift
E1.1D			environ.jsp	<ul> <li>Doppler shift</li> </ul>

E5.3A E5.1d E5.1c E5.1b E5.1A E1.2k E1.2i E1.2h E1.2h E1.2C E1.2A E1.1i E1.1g	<ul> <li>the emerging questions that active researchers investigate.</li> <li>Critique whether or not specific questions can be answered through scientific investigations.</li> <li>Develop an understanding of a scientific concept by accessing information from multiple sources. Evaluate the scientific accuracy and significance of the information.</li> <li>Describe the distinctions between scientific theories, laws, hypotheses, and observations.</li> <li>Explain the progression of ideas and explanations that lead to science theories that are part of the current scientific consensus or core knowledge</li> <li>Analyze how science and society interact from a historical, political, economic, or social perspective.</li> <li>Describe the Desition and motion of our solar system in our galaxy and the overall scale, structure, and age of the universe.</li> <li>Explain how observations of the cosmic background radiation have helped determine the age of the universe.</li> <li>Differentiate between the cosmological and Doppler red shift.</li> </ul>		https://geol ogy.com/te acher/	<ul> <li>History of astronomy</li> <li>Milky Way Galaxy</li> <li>Origin of our solar system</li> </ul>
	<ul> <li>Differentiate between the cosmological and Doppler red shift.</li> </ul>			
	• Explain how the solar system formed from a nebula of dust and gas in a spiral arm of the Milky Way Galaxy about 4.6 Ga (billion years ago).			
Explain how	• Evaluate the uncertainties or validity of scientific	Unit Tests	Internet,	<ul> <li>Gravity</li> </ul>
indirect measures,	conclusions using an understanding of sources of	<ul> <li>Cumulative</li> </ul>	Chromeboo	Hertzsprung-
inference and	measurement error, the challenges of controlling	Exams	k,	Russell (H-R)
modeling used to	variables, accuracy of data analysis, logic of	<ul> <li>Projects</li> </ul>	https://ww	diagram
study an evolving	argument, logic of experimental design, and/or the		w.nst.gov/n	<ul> <li>Nuclear fusion</li> </ul>
solar system, galaxy	dependence on underlying assumptions.		<u>ews/classro</u>	

and universe? MI	Identify patterns in data and relate them to	om/earth-	Stellar
Farth Science	theoretical models	environ isp	
	<ul> <li>Pased on ompirical ovidence, ovalain and critique</li> </ul>	<u>environ.jsp</u>	
E1 1D	• Based off empirical evidence, explain and childre	<u>intips.//geoi</u>	<ul> <li>Solar activity</li> <li>Transformation</li> </ul>
	ar explanation	ogy.com/te	• ITalisionnation
	Distinguish between scientific evaluations that are	<u>acher/</u>	Of Elements
E1.1g	<ul> <li>Distinguish between scientific explanations that are recorded as surrent essentific explanations that are</li> </ul>		
E1.11	regarded as current scientific consensus and the		
E1.2C	emerging questions that active researchers		
E5.2A	investigate.		
E5.2B	• Develop an understanding of a scientific concept by		
E5.2C	accessing information from multiple sources.		
E5.2D	Evaluate the scientific accuracy and significance of		
E5.2e	the information.		
E5.2f	<ul> <li>Identify patterns in solar activities (sunspot cycle,</li> </ul>		
E5.2g	solar flares, solar wind).		
E5.2h	<ul> <li>Relate events on the Sun to phenomena such as</li> </ul>		
	auroras, disruption of radio and satellite		
	communications, and power disturbances.		
	<ul> <li>Describe how nuclear fusion produces energy in</li> </ul>		
	the Sun.		
	• Describe how nuclear fusion and other processes in		
	stars have led to the formation of all the other		
	chemical elements.		
	• Explain how the Hertzsprung-Russell (H-R) diagram		
	can be used to deduce other parameters (distance).		
	• Explain how you can infer the temperature, life		
	span, and mass of a star from its color. Use the H-R		
	diagram to explain the life cycle of stars.		
	• Explain how the balance between fusion and		
	gravity controls the evolution of a star		
	(equilibrium).		
	Compare the evolution paths of low, moderate and		
	high mass stars using the H-R diagram.		

Physical Science						
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary		
Understand the nature of science and demonstrate an ability to practice scientific reasoning by applying it to the design, execution, and evaluation of scientific investigations of force and motion. MI GLCEs addressed: P1.1A; P1.2k; P1.2A; P1.2B; P1.2D; P1.2h; P1.2i;	<ul> <li>critique whether specific questions can be answered through scientific investigation</li> <li>demonstrate the proper use of tools and techniques used for measurement in scientific investigations</li> <li>use a guided inquiry process to investigate forces and motion.</li> <li>review the steps in the scientific method and analyze the steps in given examples.</li> <li>TLW analyze the pulley investigation using the processes of cause and effect, comparing and contrasting, and</li> </ul>	<ul> <li>Unit Tests</li> <li>Cumulative Exams</li> </ul>	Internet, Chromebooks	<ul> <li>Dependent variable</li> <li>Experimental group</li> <li>Experimental research</li> <li>Field research</li> <li>Graduated cylinder</li> <li>Independent variable</li> <li>Inference</li> <li>sample</li> </ul>		

P1.1A; P1.1B; P1.1C; P1.1D; P1.1E; P1.1h; P1.2D; P1.1B; P1.1C; P1.1D; P1.1E; P1.1f; P1.1g; P1.2C; P1.2D; P1.2E; P1.2f; P1.2g; P1.2j; Measure, calculate.	observing and inferring to reach conclusions.	Unit test	http://webhw.u	• Average
measure, calculate, graph, and analyze the motion of an object (position, speed, and velocity) as a function of time. MI GLCEs addressed: P2.1A; P2.1C; P2.1D; P2.2A; P2.2C; P2.1C; P2.1g; P2.2A; P2.2B; P2.2e; P2.1A; P2.1B; P2.1C; P2.1D; P2.1E; P2.1F; P2.1h; P2.2f;	<ul> <li>apply the speed (rate), distance, time formula to solve problems related to speed and velocity</li> <li>collaboratively measure time and speed and calculate the accelerations of an object rolling down inclined planes of various slopes.</li> <li>describe and classify various motions in a plane as one-dimensional, two-dimensional, circular, or periodic, and represent linear and circular motion on a graph and through motion diagrams</li> </ul>	<ul> <li>Car demonstration/ lab</li> </ul>	http://webnw.u nca.edu/dotnet/ example1.aspx Introduction to (uniform) motion (as a teacher resource) One dimensional motion http://hyperphy sics.phy- astr.gsu.edu/hba se/mot.html	<ul> <li>Average acceleratio n</li> <li>Average speed</li> <li>Average velocity</li> <li>Circular motion</li> <li>Constant acceleratio n</li> <li>Curved path</li> <li>Displacem ent</li> <li>Elapsed time</li> <li>Frame of reference</li> </ul>

			http://www.rudi	Linear
			montsofwisdom c	motion
				Motion
			om/default.htm	
				diagram
				Newton
				(N)
				• Periodic
				motion
				• Rte
				Reference
				line
				<ul> <li>Relative</li> </ul>
				motion
				<ul> <li>Rotation</li> </ul>
				• Strobe
				picture
				Turning
				• Two-
				dimension
				al path
				<ul> <li>Velocity</li> </ul>
				(v)
Explain that objects		<ul> <li>Unit</li> </ul>	http://www.pbs.	Action/reac
interact according to	• identify the forces acting between objects	Tests	org/wgbh/buildi	tion force
the basic forces in	in "direct contact" or at a distance.		ngbig/lab/forces	<ul> <li>Action/reac</li> </ul>
nature, as described by	• identify the magnitude and direction of	<ul> <li>Cumula</li> </ul>	.html is an	tion pair
Newton's Laws, and	everyday forces.	tive	interactive site	<ul> <li>Driect</li> </ul>
predict the change in	• compare work done in different situations.	Exams	that shows	contact
the motion of an object	• calculate the net force acting on an object.		specific forces	<ul> <li>Earth-</li> </ul>
when acted upon by	• solve problems involving force, mass, and	<ul> <li>Projects</li> </ul>	and their	Moon
those forces.	acceleration in linear motion (Newton's		interactions.	interaction
	Second Law).			<ul> <li>Electromag</li> </ul>
P1.1C; P1.1E; P3.1A;	• identify the action and reaction force from			e Liccitoning
P3.6B;	examples of forces in everyday situations.			

P1.1D; P1.1f; P3.1d; P3.2A; P3.6C; P1.1B; P1.1C; P1.1D; P3.2B; P1.1f; P3.2C; P3.4A; P3.4B; P1.1C; P1.1f; P3.4C; P1.1A; P1.1C; P1.1E; P2.1F; P3.3A; P1.1A; P1.1E; P1.1f; P2.1F; P2.2D; P3.4D; P3.6A;	<ul> <li>identify the force(s) acting on objects moving with uniform circular motion and explain that uniform circular motion involves acceleration without a change in speed.</li> <li>compare and contrast Newton's Laws of Motion</li> </ul>		http://www.pbs. org/wgbh/buildi ngbig/index.htm l shows real-life applications related to engineering and architecture. AIMS <i>Machine</i> <i>Shop</i> , 2007, http://wwws.ai msedu.org/aims_ store/Machine- Shop-p-886.html http://www.glen brook.k12.il.us/g bssci/phys/mme dia/	<ul> <li>Interaction force</li> <li>Linear motion</li> <li>Magnitude</li> <li>Nuclear force</li> <li>Orbital motion</li> <li>Strong nuclear force</li> <li>Tension</li> <li>Uniform circular motion</li> <li>Weak nuclear force</li> </ul>
Identify and explain forms of energy and their transformations. P4.1B; P4.3A; P1.1E; P4.3B; P4.3C; P4.1A; P4.2A; P4.10A; P4.10B; P4.2B; P4.2C; P4.2D; P4.12A; P4.12B; 1.2B; P1.2C; P1.2D; P4.12C	<ul> <li>identify the forms of energy in given situations and explain instances of energy transfer by objects in everyday activities</li> <li>describe the transformation between potential and kinetic energy in simple mechanical systems and explain why all mechanical systems require an external energy source to maintain their motion</li> <li>account for and represent energy transfer and transformation in complex processes (interactions) and use transfer diagrams to account for and represent energy into and out of systems</li> <li>name devices that transform specific types of energy into other types</li> </ul>	<ul> <li>Unit test</li> <li>Labs</li> </ul>	Energy Transformation for Downhill Skiing Energy Transformation on a Roller Coaster Energy Transformation	<ul> <li>Dry cell</li> <li>Generator</li> <li>Law of Conversatio n of Energy</li> <li>Mechanical advantage</li> <li>Nuclear fission</li> <li>Transfer diagram</li> </ul>
	<ul> <li>discuss the three processes of nuclear reactions and how these changes represent a transformation of energy, describe peaceful technological applications of nuclear fission and radioactive decay, and describe possible problems caused by exposure to prolonged radioactive decay</li> <li>explain how stars, including the Sun, produce huge amounts of energy through nuclear fusion</li> <li>reflect on the processes of science and their social implications by investigating nuclear vs coal energy use or nuclear vs wind energy uses and the energy transformations involved</li> </ul>		for a Pendulum Conservation of Energy <u>http://apps1.eere</u> <u>.energy.gov/educ</u> <u>ation/lessonplans</u> <u>/</u> <u>Energy</u> <u>production</u> <u>http://www.lbl.go</u> <u>v/abc/index.html</u> <u>http://rredc.nrel.</u> <u>gov/solar/old_dat</u> <u>a/nsrdb/redbook/</u> <u>atlas/</u>	
--	---	---	--	--
Predict how electric force varies between charged objects, explain the movement of electrical charges, and identify the common parts and types of circuits. MI GLCEs addressed: P1.1f; P3.7A; P3.7B; P4.10C; P4.10D;	<ul> <li>predict how the electric force between charged objects varies when the distance between them and/or the magnitude of charges change and explain the process by which an object can acquire a static charge</li> <li>identify complete circuits, open circuits, and short circuits and explain the reasons for the classification</li> <li>discriminate between voltage, resistance, and current as they apply to an electric circuit</li> <li>investigate the relationship between electricity and magnetism by constructing an electromagnet, demonstrate multiple transformations of energy to create</li> </ul>	<ul> <li>Unit test</li> <li>Labs</li> </ul>	http://hyperphy sics.phy- astr.gsu.edu/Hba se/electric/ohml aw.html http://www.glen brook.k12.il.us/g bssci/Phys/Class /circuits/u9l3c.h tml	<ul> <li>amperes</li> <li>complete circuit</li> <li>current flow</li> <li>electrical switch</li> <li>electrocution</li> <li>electron flow</li> <li>grounding</li> <li>incomplete circuit</li> <li>insulator</li> <li>potential difference</li> </ul>

Euplain the properties	electromagnetic force, and determine the strength of the magnet	e Unit Toot	http://atrooming	<ul> <li>power</li> <li>series circuit</li> <li>simple circuit</li> <li>solar energy</li> <li>volt</li> <li>voltage</li> </ul>
of mechanical and electromagnetic waves and predict their behavior when interacting with various media. MI GLCEs addressed: P4.1B; P4.4A; P4.4B; P4.4C; P4.5A; P4.5B; P4.1B; P4.5C; P4.5D; P4.5E; P4.6A; P4.6B; P4.6C; P4.6D; P4.8B; P4.1B; P4.8A; P4.9A; P4.9B; P4.9C; P4.5A; P4.6A;	<ul> <li>explain properties and energy transfer of mechanical waves</li> <li>explain properties of sound waves and their interaction with various surfaces</li> <li>identify the different regions on the electromagnetic spectrum and compare them in terms of wavelength, frequency, and energy and explain why electromagnetic waves can travel through space but sound waves cannot</li> <li>explain how various materials reflect, absorb, or transmit light in different ways</li> <li>compare and contrast mechanical and electromagnetic waves</li> </ul>	• Labs	http://www.geo. mtu.edu/UPSeis /waves.html http://streaming .discoveryeducat ion.com/ The doppler effect and sonic booms	<ul> <li>Colors of the spectrum</li> <li>Compression waves</li> <li>Concave</li> <li>Diffraction</li> <li>Diffraction grating</li> <li>Direct ray</li> <li>Echo</li> <li>Emission</li> <li>Gamma rays</li> <li>Hertz</li> <li>Indirect ray</li> <li>Interference</li> <li>Merters per second</li> <li>Micrometers</li> <li>Microwave</li> <li>Origin</li> <li>Rism</li> <li>Radiant heat</li> <li>Scattering</li> <li>Shock wave</li> <li>Sonic boom</li> <li>Ultrasound</li> <li>Ultraviolet radiation</li> </ul>

	Velocity	
	Visible light	
	Wave velocit:	ty

### Health and Physical Education

Students at FlexTech can earn partial credit through Intersession each year and/or in combination with participation in sports. Additionally, some students choose to earn partial credit for the course as a whole by working individually with the PE instructor on an independent study basis. In any case, the basic expectations for PE are followed and the spirit and intent of the aims of physical education are maintained. The Intersession courses provide students with experience in target games, striking and fielding games, and net/wall games. Health is taught at the Junior High using modules form the MI Model Health Curriculum with the certified Health teacher.

Health and Physical Education				
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary
Nutrition and Physical Activity/Personal Health and Wellness Health Standards: 1.1- 1.12; 5.1-5.11 PE Standards: M.OP.07/08.01-05; K.FB.07/08.01; K.PA.07/08.01; K.HR.07/08.02-08; K.AN.07/08.01-02; K.PS.)7/08.01-02; K.RP.07/08.01-02; K.SB.08.01; K.ID.07/08.01- 03: K.FE.08.01:	<ul> <li>demonstrate competency in motor skills and movement patterns needed to perform a variety of physical activities.</li> <li>demonstrate understanding of movement concepts, principles, strategies, and tactics as they apply to learning and performance of physical activities.</li> <li>participate regularly in lifelong physical activity.</li> <li>achieve a health-enhancing level of physical fitness.</li> </ul>	<ul> <li>Personal Fitness and Nutrition plan that sets goals, monitors progress, adjusts behavior, and reflects on the qualities necessary to achieve fitness as well as the student's feelings about themselves as</li> </ul>	Michigan Model Health Curriculum Resources Internet Park and gym facilities	<ul> <li>Calories</li> <li>Carbohydrates</li> <li>Protein</li> <li>Fat</li> <li>Body fat index</li> <li>Healthy weight</li> <li>Body image</li> <li>Cardio/strength training</li> <li>Balanced diet</li> <li>Target heart rate</li> </ul>

A.PE.07/08.01; A.PA.08.01; A.HR.07/08.02-08; A.AN.07/08.01; A.AN.07/08.04; B.FB.07/08.01; B.PS.07/08.01-02; B.RP.07/08.01-02; B.SB.07/08.01; B.ID.07/08.01-03; B.FE.07/08.01	<ul> <li>value physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.</li> </ul>	they embark on the path to fitness.		
Alcohol, Tobacco and Other Drugs Health Standards: 2.1-2.11	<ul> <li>Analyze effects of alcohol, tobacco and other drugs on the individual and the society; describe ways to access help if needed, know how to recognize problems behaviors with these; understand and analyze media influences and practice refusal strategies and alternate ways of meeting needs.</li> </ul>	<ul> <li>Project Term PSA Presentation to dissuade adolescents from using substances.</li> </ul>	Internet	varied
PE Standards: M.MC.07/08.01; M.MS.07/08.04-06; M.OP.07/07.01-05; M.Tg.08.01-02; M.IG.07/08.01-02; M.NG.07/08.01-02; M.SG.07/08.01; K.MC.07/08.01; K.MC.07/08.15; K.MS.07/08.05; K.OP.07/08.01,03-07;	<ul> <li>Understand and explain the rules of some games.</li> <li>Participate in organizing and playing a group sport.</li> <li>Demonstrate good sportsmanship and healthy competition.</li> </ul>	<ul> <li>Students will organize and participate in three group sport activities (either a target, striking/fielding, invasion or a net game) and will take turns playing,</li> </ul>	Playing facility Equipment needs based on students selection of sport.	• varied

K.TG.07/08.01-02; K.IG.07/08.01-02; K.NG.07/08.01-02; K.SG.07/08.01 Safety, Social and Emotional Health Health Standards: 3.1- 3.13; 4.1-4.12, 4.15-17.	<ul> <li>Explain and describe the aspects of healthy relationships and effective communication.</li> <li>Evaluate dangerous or stressful situations; explain how and from whom to seek help when needed.</li> <li>Identify criteria when outside help is needed.</li> </ul>	<ul> <li>coaching and officiating.</li> <li>Students will participate in developing a peer conflict resolution panel; and practice and model effective communication through the use of student constructed protocols.</li> <li>Participate in</li> </ul>	Advisory	<ul> <li>Passive</li> <li>Aggressive</li> <li>Assertive</li> <li>Community Resources</li> </ul>
		role-playing.		
HIV, STI's, and Sexuality Education. Health:	<ul> <li>Students will understand and explain how STI's and HIV are and are not transmitted.</li> </ul>	<ul> <li>Reports on the prevalence of STI's and HIV and the effects—short and long term.</li> </ul>	Internet, word processor	• varied

### **Portfolio Project**

Students in Junior High will meet daily in an advisory class. This class will be responsible for the production of a portfolio that will be both a culminating celebration of learning but also meet many of the Art, Technology and Communication standards. The course will integrate goals of high school preparedness and goal setting and focus on civil discourse and using collaboration to improve work quality. The course will be

sensitive to this particular age group in both embracing their youth and in raising expectations for mature behavior with regard to impulse control, persistence and sustained attention to a task.

The portfolio will require a formal presentation and will include elements from all course work, centered on the key findings of a research report that will include data collection, and the graphic representation of this data in a multi-media technologically proficient format. Students will learn to collaborate and share ideas with peers and will frequently reflect on their progress in the course of advisory. Students will conduct a less formal presentation for their mid-term, "working up" to the formal end-of-year presentation for parents, faculty and peers.

Portfolio Project				
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary
Marking Period One: The EDP	<ul> <li>Describe potential careers that match their current interests.</li> <li>Explain the type of education necessary to achieve success in those careers.</li> </ul>	<ul> <li>Mini-biography with future goals.</li> </ul>	Xello	
Marking Period Two: Beginning a Portfolio Art Standards Addressed: ART.I.VA.M.1 ART.I.VA.M.2 ART.I.VA.M.3 ART.II.VA.M.1 ART.II.VA.M.2 MET Standards:: 6-8.TC.1, 6-8.TC.2, 6- 8.TC.5, 6-8.TC.6, 6-8.TC.8, 6-8.TC.9	<ul> <li>Use technology and art to develop a plan to create a visually and information rich electronic portfolio for future presentation.</li> </ul>	<ul> <li>Student designed rubrics for portfolios.</li> </ul>	Internet, Chromebook, Past Projects	
Marking Period Three/Mid-Term: Portfolio Presentation One	<ul> <li>Synthesize content from the four core areas for a presentation to their peers and faculty.</li> </ul>	<ul> <li>Portfolio</li> <li>Presentation</li> <li>One</li> </ul>	Internet, Chromebook, Past Projects	

ELA CCSS: Standards for		•	Reflection of		
Speaking and Listening—			their own		
Comprehension and			presentation,		
Collaboration 1a.b.c.d,			and feedback		
2,3,; Presentation of			for peers in		
Knowledge and Ideas			appropriate		
4,5,6. MI GLCEs:			fashion.		
S.DS.06-08.01 ,					
S.DS.06-08.03 ,					
S.DS.06.02, L.CN.06-08.02,					
L.CN.06.01,					
L.CN.08.01 ,					
L.RP.06-08.01 ,					
L.RP.06.04 ,					
L.RP.07.04,					
L.RP.08.04,					
L.RP.06-07.07,					
L.CN.07.01					
L.CN.08.01					
L.RP.06-08.05 ,					
7, 8					
L.RP.06.06					
L.RP.07-08.06					
Marking Period Four:	Propose a research project	•	Project	Internet, Chromebook,	
Project Presentation	for the final presentation.		Template	Past Projects	
Marking Period Six: project	<ul> <li>Present a full project for</li> </ul>	•	Project	Internet, Chromebook,	
Presentations—	peers, faculty and parents.		presentation	Past Projects	
Art Standards:					
ART.I.VA.M.4					
ART.II.VA.M.6 .					
MET Standards: 6-8.Cl.1.,					
6-8CI.2, 6-8.RI.1, 6-8.RI.2,					
6-8.RI.3, 6-8.RI.4, 6-8.CT.1,					

6-8.CT.2, 6-8.CT.3, 6-		
8.DC.1, 6-8.DC.4, 6-8.DC.5		
ELA Standards: ELA CCSS:		
Standards for Speaking		
and Listening—		
Comprehension and		
Collaboration 1a.b.c.d,		
2,3,; Presentation of		
Knowledge and Ideas		
4,5,6. MI GLCEs:		
S.DS.06-08.01 ,		
S.DS.06-08.03 ,		
S.DS.06.02, L.CN.06-08.02,		
L.CN.06.01,		
L.CN.08.01 ,		
L.RP.06-08.01 ,		
L.RP.06.04 ,		
L.RP.07.04,		
L.RP.08.04,		
L.RP.06-07.07,		
L.CN.07.01		
L.CN.08.01		
L.RP.06-08.05 ,		
7,8		
L.RP.06.06		
L.RP.07-08.06		

#### ARTS

In the Junior High program, art is an elective course that often is integrated into the thematic cross-curricular projects with the core content classes. Students work in a variety of media, focusing on the process of making art, preparing them for advanced studies in high school.

ART				
Benchmarks/Course Content Expectations	Student Outcomes: The student will be able to	Assessment Tasks	Instructional Resources	Vocabulary
PERFORM Standard 1 Apply skills and knowledge to perform in the arts. ART.T.I.6.1-3 ART.T.I.6.1-3 ART.T.I.8.1-3 CREATE Standard 2 Apply skills and knowledge to create in the arts. ART.T.II.6.1-4 ART.T.II.6.1-4 ART.T.II.8.1-4 ART.T.II.8.1-4 ANALYZE Standard 3 Analyze, describe, and evaluate works of art. ART.T.III.6.1-7 ART.T.III.6.1-7 ART.T.III.8.1-8 ANALYZE IN	<ul> <li>reinterpret traditional ideas in new ways</li> <li>explain my artistic process and relate it to my work</li> <li>develop an idea for an artwork around a given theme</li> <li>use a variety of sources and brainstorming methods for inspiration</li> <li>work flexibly when creating an artwork, thinking about my choices and making necessary changes along the way</li> <li>develop multiple solutions when visually problem solving and choose the solution that best meets my ideas/needs</li> <li>solve a given problem with a visual solution</li> </ul>	<ul> <li>One of:</li> <li>Collage</li> <li>Drawing</li> <li>Pencil</li> <li>Charcoal</li> <li>Painting</li> <li>Tempera</li> <li>Clay</li> <li>Pinch building</li> <li>Coil Building</li> <li>Mixed Media</li> <li>(introduction)</li> <li>Media of choice</li> <li>(theme unit)</li> <li>Photoshop</li> <li>Printing</li> <li>Poster</li> <li>Type as design</li> <li>Pictographs</li> <li>Logos</li> <li>Logos</li> <li>Logotypes Tshirts</li> <li>Illustrator/Vector</li> <li>Drawing</li> <li>Calendar</li> <li>CD cover</li> </ul>	Art21 Art Museums/ Institutions (MOMA, MET, DIA, MOCAD) Technique videos/tutorials	<ul> <li>Idea</li> <li>generation/developme nt</li> <li>Pushing ideas past the</li> <li>conventional/easy</li> <li>Work/effort</li> <li>Concept/ideas in work</li> <li>Act of thinking about work</li> <li>Process that goes into</li> <li>making work Artistic</li> <li>Process</li> <li>Skill development</li> <li>Skill execution Expression of</li> <li>idea, emotion Work/effort</li> <li>in</li> <li>developing skill Act of</li> <li>making/doing/particip ating</li> <li>in work</li> <li>Using structures Process of</li> <li>exhibiting/displaying</li> </ul>
CONTEXT		Critique		Reflection

	• collaborate with others	Reflection	Analysis
Standard 4	to develop ideas, work	• Artist Statement	• Justification
Understand,	through the creative	Animation	• Critique
analyze, and describe	process and present	• Digital drawing	Critical Thinking
the arts in their	work		Evaluating
historical, social, and	• effectively and		• own and other's work
cultural contexts.	purposefully use the		Metacognition
ART.T.IV.6.1-5	artistic process to create		Question
ART.T.IV.7.1-5	an artwork		• own and other's work
ART.T.IV.8.1-5	(brainstorm/research,		• Art history
ANALYZE AND	idea development,		• Contemporary art
MAKE	execution, revision,		• Art movements
CONNECTIONS	presentation) explain		• Technique based
Standard 5	how		vocabulary
Recognize,	• choose and justify the		
analyze, and describe	best techniques for my		
connections among	work to convey my		
the arts; between the	desired meaning and		
arts and other	aesthetics		
disciplines; between	• execute a collage with		
the arts and everyday	skill/technical		
life.	proficiency		
ART.T.V.6.1-3	• put substantial effort		
ART.T.V.7.1-3	into improving my		
ART.T.V.8.1-3	technical skills		
	• use color theory to		
	create visual meaning		
	• make a work that		
	conveys a big idea (i.e.		
	identity)		
	• work on a project until		
	its look, feel and		
	message are complete		
	(excellence)		
	• execute a pencil		
	drawing with skill		

• create an artwork that is
well thought out and
developed
• (expand)use color
theory to create
conceptual meaning
• create a work that
others can understand
my meaning from my
choices
• execute a charcoal
drawing with skill
• execute a mixed media
work with skill
• execute a ceramic piece
with skill
• create an accurate
observational
• drawing
• execute a tempera
painting with skill
• display my work in a
professional manner
• create an
abstract/nonrepresentati
onal drawing
• create an artwork that
uses Elements of Art
• effectively to create
conceptual meaning
• create an artwork that
uses Elements of Art
effectively to create
visual meaning
• create an artwork that
uses Principles of Art

<ul> <li>effectively to create</li> </ul>		
conceptual meaning		
• create an artwork that		
uses Principles		
effectively to create		
visual meaning		
• create an artwork that		
uses identifiable		
techniques effectively		
to create		
<ul> <li>conceptual meaning</li> </ul>		
• create an artwork that		
uses identifiable		
techniques effectively		
to create visual		
meening		
• create an artwork that		
• create an artwork that		
affectively to greate		
effectively to create		
conceptual meaning		
• create an artwork that		
uses identifiable media		
effectively to create		
visual meaning		
• express an		
understandable emotion		
through my work		
<ul> <li>express an</li> </ul>		
understandable		
thought/idea through		
my work		
• put substantial effort		
into developing my		
• observational drawing		
skills		

• create a dynamic
composition
• work to continually
improve my skills
• explain and justify my
personal definition of
art
• reflect upon my
personal growth as an
artist and thinker
• analyze the
effectiveness of an
artwork's composition
• describe the different
conceptual qualities of
an artwork in detail
describe and interpret
the visual and
conceptual meaning
created by different
Elements of Art
describe and interpret
the visual and
conceptual meaning
created by different
media
• describe and interpret
the visual and
conceptual meaning
created by different
technique
• compare different
artworks
• reflect about my work
and process through a
variety of ways

( ··· ···		
(critique, written		
reflection, small group		
conversations, etc.)		
• describe and analyze		
my aesthetic, technical		
and conceptual choices		
in detail through a		
variety of ways		
(critique, written		
reflection, small group		
conversations, etc.)		
• write an artist statement		
that explains my		
artwork and process in		
detail (both		
• visual and conceptual		
meaning)		
• use my and others		
reflections to improve		
• my artwork		
• evaluate my		
artwork/ideas after		
hearing others input		
<ul> <li>respectfully provide</li> </ul>		
valuable reflection and		
feedback on others		
work in a variety of		
ways (critique written		
reflection small group		
conversations etc.)		
• define identify and		
explain the purpose of		
the Flements of Art		
<ul> <li>define identify and</li> </ul>		
explain the purpose of		
the Dringinles of Art		
the Principles of Art		

• define, identify and	
explain the purpose of	
specific art vocabulary	
relating to different	
mediums, techniques	
and general use	
• define, identify and	
explain the purpose of	
different media	
• define, identify and	
explain the purpose of	
different techniques	
• use my new knowledge	
to develop my work	
further	
• compare and analyze	
the connections	
between different forms	
of the arts	
• compare and analyze	
the connections	
between art and our	
lives (social, historical,	
cultural)	
• understand how art fits	
into our and others	
society	
• explain and analyze	
how technology has	
affected the arts	
• describe and explain	
the purpose of a variety	
of art careers	
• explain and analyze the	
importance of specific	
artworks, artists and	

movements on the		
world (socially,		
historically and		
culturally)		
• describe and anal	yze	
the function of ar	in	
different social,		
historical and cult	ural	
contexts		
• describe and anal	yze	
the relationships of	of	
specific artworks	to its	
audience/user and	/or	
location		

Exhibit 5

# APPLICATION AND ENROLLMENT OF STUDENTS

## **Enrollment Limits**

The Academy will offer eighth through twelfth grade. The maximum enrollment shall be building capacity of 240 students. The Academy Board of Directors will annually determine enrollment figures prior to its application and enrollment figures prior to its application and enrollment period.

## **Requirements**

Section 504 of the Code provides that public school academies shall not charge tuition and shall not discriminate in its pupil admissions policies or practices on the basis of intellectual or athletic ability, measures of achievement or aptitude, status as a student with a disability, or any other basis that would be illegal if used by a Michigan school district.

- Academy enrollment shall be open to all individuals who reside in Michigan. Except for a foreign exchange student who is not a United States citizen, a public school academy shall not enroll a pupil who is not a Michigan resident.
- Academy admissions may be limited to pupils within a particular age range/grade level or on any other basis that would be legal if used by a Michigan school district.
- The Academy Board shall provide enrollment priority to currently enrolled pupils and newly enrolled siblings of currently enrolled pupils, children of Board members, and children of staff members.
- The Academy shall allow any pupil who was enrolled in the Academy in the immediately preceding academic year to re-enroll in the Academy unless the appropriate grade is not offered.
- No student may be denied participation in the application process due to lack of student records.
- If the Academy receives more applications for enrollment than there are spaces available, pupils shall be selected for enrollment through a random selection drawing.

## **Application Process**

- The application period shall be a minimum of two weeks in duration, with evening and/or weekend times available.
- The Academy shall accept applications all year. If openings occur during the academic year, student shall be enrolled. If openings do not exist, applicants shall be placed on the official waiting list. The waiting list shall cease to exist at the beginning of the next application period.

- In the event there are openings in the class for which students have applied, students shall be admitted according to the official waiting list. The position on the waiting list shall be determined by the random selection drawing. If there is no waiting list, students shall be admitted on a first-come, first-served basis.
- The Academy may neither close the application period nor hold a random selection drawing for unauthorized grades prior to receipt of approval from Bay Mills Community College.

#### Legal Notice or Advertisement

- The Academy shall provide legal notice or advertisement of the application and enrollment process in a local newspaper of general circulation.
- At a minimum, the legal notice or advertisement must include:
  - A. The process and/or location(s) for requesting and submitting applications.
  - B. The beginning date and the ending date of the application period.
  - C. The date, time, and place the random selection drawing(s) will be held, if needed.
- The legal notice or advertisement of the application period shall be designed to inform individuals that are most likely to be interested in attending the Academy.
- The Academy, being an equal opportunity educational institution, shall be committed to good-faith affirmative action efforts to seek out, create and serve a diverse student body.

#### **Re-enrolling Students**

- The Academy shall notify parents or guardians of all enrolled students of the deadline for notifying the Academy that they wish to re-enroll their child.
- If the Academy Board has a sibling preference policy, the re-enrollment notice must also request that the parent or guardian indicate whether a sibling(s) seeks to enroll for the upcoming academic year.
- An enrolled student who does not re-enroll by the specified date can only apply to the Academy during the application period for new students.
- An applicant on the waiting list at the time a new application period begins must reapply as a new student.
- After collecting the parent or guardian responses, the Academy must determine the following:
  - A. The number of students who have re-enrolled per grade or grouping level.
  - B. The number of siblings seeking admission for the upcoming academic year per grade.

- C. If space is unavailable, the Academy must develop a waiting list for siblings of reenrolled students.
- D. The number of spaces remaining, per grade, after enrollment of current students and siblings.

#### **Random Selection Drawing**

A random selection drawing is required if the number of applications exceeds the number of available spaces. Prior to the application period, the Academy shall:

- Establish written procedures for conducting a random selection drawing.
- Establish the maximum number of spaces available per grade or age grouping level.
- Establish the date, time, place and person to conduct the random selection drawing.
- Notify The Center of both the application period and the date of the random selection drawing, if needed. The Center may have a representative on-site to monitor the random selection drawing process.

The Academy shall use a credible, impartial "third party" who is not employed by, under contract with, a member of the Board of, or otherwise affiliated with the Academy to conduct the random selection drawing. Further, the Academy shall:

- Conduct the random selection drawing in a manner that is open to parents, community members and members of the public who want to observe the process.
- Use numbers, letters, or another system that guarantees fairness and does not give an advantage to any applicant.

The Academy shall notify applicants not chosen in the random selection drawing that they were not selected and that their name has been placed on the Academy's official waiting list for openings that may occur during the academic year. Students shall appear on the official waiting list in the order they were selected in the random selection drawing. Exhibit 6

## SECTION 7h: AGE OR GRADE RANGE OF PUPILS

The Academy will enroll students in eighth through twelfth grade. The Academy may add grades with the prior written approval of the Charter Schools Office Director or the College Board.

Students of the Academy will be children who have reached the age of five (5) as set forth in MCL 380.1147.

\* If a child is not 5 years of age on the specified enrollment eligibility date but will be 5 years of age not later than December 1 of a school year, the parent or legal guardian of that child may enroll the child in kindergarten for that school year if the parent or legal guardian notifies the school in a timely manner.