Fundamental 4: Encourage and enable students to be academic entrepreneurs and risk-takers who can choose to pursue academic passions and interests beyond traditional curriculum and beyond the traditional classroom environment.

As part of the Board's annual planning calendar found in 1008P, this monitoring report focuses on Board Policy 2020, Fundamental 4, which states: “Encourage and enable students to be academic entrepreneurs and risk-takers who can choose to pursue academic passions and interests beyond traditional curriculum and beyond the traditional classroom environment.”

This report describes the work in our schools and district to meet Fundamental 4. The instructional leadership team considered the superintendent’s interpretation of Fundamental 4, which was approved by the Board on February 24, 2015. The superintendent’s interpretation is attached for reference.

This report includes both quantitative indicators from the Developmental Asset Survey and the Educational Effectiveness Survey, as well as qualitative indicators from our schools. These indicators show the school district is meeting Fundamental 4. This monitoring has occurred annually since February 2015.

QUANTITATIVE INDICATORS

Quantitative factors from the Asset Survey (administered in the spring of 2012, 2014, and 2016) and the Educational Effectiveness Survey (administered each spring) were considered and previously approved by the board for monitoring Fundamental 4. Note, the next administration of the Asset Survey will be spring, 2018.

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<tr>
<th>Developmental Asset Survey Results – given to MIHS students in alternate years</th>
<th>SY 12-13</th>
<th>SY 13-14</th>
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<td>Total number of Developmental Assets (40 possible) reported by MIHS students</td>
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<td>% of students reporting the Asset of “Youth Programs.”</td>
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<th>Educational Effectiveness Survey Results – given to student in grades 4 through 12</th>
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<td>% of students who agree, “My teacher(s) provide lessons and activities that challenge me to learn.”</td>
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<td>% of students who agree, “My teacher(s) listen to my ideas and/or concerns.”</td>
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<td>“My teacher(s) help us learn</td>
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<td>in more ways than just</td>
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<td>talking in front of the class.”</td>
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<td>% of students who agree,</td>
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<td>“Work I do in this school is</td>
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<td>% of students who agree,</td>
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The overall *Developmental Asset* number remained constant between 2011-2012 and 2015-2016. This data indicator suggests that the students continue to benefit from and receive support by the school district and surrounding community. The asset of *Youth Programs* (students who spend three or more hours per week in sports, clubs, or organizations at school and/or in community organizations) also remained high at 80%. While this does not indicate exactly how many students participate in athletics, clubs, or activities at school, it is an indication that students are involved in activities that are of interest to them and potentially they have passion around. The District looks forward to the next data set from the survey this spring (2018).

The Educational Effectiveness Survey (EES) data provides a broader student perspective, surveying students in elementary, middle, and high school. This data set reveals both areas of success in making strides towards the objectives in Fundamental 4 as well as areas to question.

**Positive Indicators**

- Consistent over four/five years
  - Data over a four or five-year period of time has largely remained constant.
  - Three-quarters of students try things even if they may fail.
  - Nearly three-quarters of students report that teachers help them learn in other ways than
Areas to Question

- Consistent over four/five years
  - Less than 60% of students report that teachers find other ways to help them learn difficult things.
  - Less than 50% of students feel that what they learn is useful and interesting.

QUALITATIVE INDICATORS

The following qualitative data provide snapshots into Fundamental 4 – Encourage and enable students to be academic entrepreneurs and risk-takers who can choose to pursue academic passions and interests beyond traditional curriculum and beyond the traditional classroom environment. The Fundamental has been divided into three themes:

  Theme 1: Academic entrepreneurs and risk-takers
  Theme 2: Pursue academic passions and interests
  Theme 3: Beyond traditional curriculum and beyond the traditional classroom environment

Several of the following exemplars, but not all, will be highlighted at the board meeting for monitoring Fundamental 4.

Theme 1: Academic entrepreneurs and risk-takers

Second Grade Marketplace - Marketplace is a simulation-based opportunity for students to apply the concepts they have learned in several subjects including social studies, writing and math. Using their understanding of producers/consumers, goods/services, supply/demand, wants/needs and raw/capital materials, Lakeridge and Island Park students decide what they could create at school that would be a success in the classroom marketplace. Using math skills such as graphing and surveying, students determine whether or not there is a demand for the products they design. They decide on an initial price for their creations, create advertisements (persuasive writing) and maintain accounting ledgers to document sales. Participants take turns being bankers as a simulated currency is exchanged in the marketplace and wages are paid to employees. Last year, teachers created debit cards for producers/consumers. Students record purchases and sales in their accounts books and calculate balances.

Merchants with a Cause - Lakeridge’s Highly Capable students experience a program called Merchants with a Cause. Following a field trip to the Bill & Melinda Gates Foundation Discovery Center, students identify a local, regional, or global cause they care deeply about, and investigate related organizations. They learn about what makes an organization reputable, effective, and innovative, and select one that best meets these criteria. To raise awareness of and support the organization, students create a product that will in essence raise money for that cause. After planning a product that incorporates creativity, craftsmanship, and eco-friendly materials, students solicit feedback from classmates on prototypes to make any necessary adjustments. In addition to product design, students learn marketing techniques and produce a video infomercial educating others about their chosen cause. Visitors to the merchant fair are asked to make a
voluntary donation in order to shop for products, and all proceeds are divided and sent to the top organizations voted on by students.

**Giraffe Club** - Each year, second grade students at Lakeridge and West Mercer are asked to participate in the "Giraffe Club." The second grade teachers encourage students to learn to “stick their neck out” to help try to solve a problem or support a cause in their community. The students are exposed to biographies of famous Americans who made/make a difference as a part of the social studies curriculum. Through that learning, students then determine something that they can do to make a difference. Projects have included cleaning up garbage in a local park, collecting books or supplies for local organizations, or making money to donate to a specific cause. This year our team is coordinating with the Humane Society to come visit the classrooms as many students have expressed interest in animals and helping out at the local shelter. The students then share out their project through an oral presentation to their class.

**Online Publishing** - Elementary teachers work to empower students to take ownership in their learning and pride in what they do. Students are encouraged to show their independence and application of concepts and skills taught in class through the Seesaw app. Seesaw is a driven digital portfolio and simple parent communication tool that is used universally used in our elementary schools. Through this app, our students show what they know and explain their thinking to teachers, parents, and peers through pictures, videos, and blogs. Similar to Facebook, Seesaw is a running feed of personal student-created “pages” that highlight school work such as math problem-solving work and book reviews. Seesaw pages allow students to share and showcase their learning projects and writing pieces with a greater audience, often sharing the link with family members and friends who don't live near. It is a great forum for students not only to learn more about appropriate digital citizenship, but also to allow them to take pride in finding ways to display their growth as students and individuals. In the digital era, students are experiencing real-world collaboration and feedback by taking risks in presenting their work to a wider audience. Students enjoy the process of personalization involved in creating their Seesaw page. This project is an evolving work-in-progress, and one in which students can demonstrate perseverance and the opportunity to push themselves in ways they hadn't imagined before.

**IMS Persuasive and Argumentative Writing** - In 6th grade Language Arts, all students further develop and refine the three main modes of writing: narrative, expository and argumentative. A culminating piece for the argumentative writing unit is a letter in which students select a topic they are interested in and then select an audience they would like to convince or persuade. Students learn how to effectively research and connect facts to support their argument. They also learn how to fully explain their thoughts and connections with commentary. For many students, this is an opportunity to choose an issue they are passionate about. Most students select a controversy relevant to their lives. Does social media have positive or negative effects on teenagers? Should teens be able to play violent video games? However, some students have selected issues that were personally meaningful. For example, one student was active in youth drama and theater. When Youth Theater Northwest lost its home in 2014, this student was motivated to take action and used the skills and knowledge gained in the argumentative unit to persuade the public that Mercer Island Center for the Arts should house Youth Theater Northwest. The student was able to circulate the letter to various city council members, and eventually the letter was published in the Mercer Island Reporter. Because of the skills learned in the argumentative unit, students feel confident and encouraged to take actions outside of the classroom.
that could have real impact on their lives and the lives of others.

**IMS Band- Small Ensemble-** The Solo and Ensemble assignment provides students with a unique focus point for individual and small group performance. Many students choose to perform at the actual Eastshore Solo and Ensemble Festival which involves playing for a highly qualified adjudicator and a short meaningful lesson. Others fulfill the rubric by choosing other performance venues.

Although not everyone participates in the Festival, everyone in the music department is involved in small group performance for the class and very often in a performance outside of class.

Students progressively take over the role of the adult teacher. The groundwork for this assignment starts in 6th grade classes where students are divided into small groups to work out and perform age appropriate simple rounds and songs from their method books or from other class literature. Moving into 7th grade, they perform more difficult works with 2 or 3 performing the same part. In 8th grade students must perform one on a part and are actively involved in the selection of the literature. This department wide assignment requires independent rehearsals (i.e. not everything happening in class) with some coaching, internal leading of the ensemble (no teacher or external conductor), problem solving, risk taking and independent thinking. Students bring additional qualities back to the large group/class. As more active participants, their confidence has been boosted and they have a greater ability to express themselves with a wider vision of the group mission.

**MIHS Student Film Festival-** As a culminating activity for seniors in English 12 Film as Literature, students organize and host the first annual MIHS Film Festival. Students (with teacher facilitation) collaborate to propose a central question or central theme for the festival to revolve around—ideally, this central question or theme tackles social or ethical issues/hot topics relevant to the year, either at MIHS or on a national or global scale. Examples of previous projects include: a focus on Female Directors, films focusing on the African American experience, coming-of-age narratives, etc.

This year, students will work in groups, proposing films to be submitted to the festival and, through a democratic process, the films will be selected (allowing for students to “pitch” films based on their relevance to the central question, aesthetic and cultural value, etc.) These groups of students will be responsible for introducing each film at the showing and for facilitating a 20-30 minute seminar discussion after the film viewing. Students are expected to be our resident “experts” on the film and filmmaker, prepared to facilitate sometimes challenging or charged discussions, cultivating a community of critical thinking. The student discussion leaders will have a working knowledge of editing, cinematography, mise-en-scene and other film techniques, applying their learning experiences from the past two semesters in Film as Lit.

This year’s event will likely occur over the course of two evenings, showing a total of 6-8 films on campus and it will be open to students, parents, siblings, graduates, community members, as well as faculty and staff. Students will also be responsible for campus advertising of the event (through leadership, school bulletin, posters, word-of-mouth and any other promotions in the greater MI community). The organizing and facilitating of the activity is intended to give seniors a sense of ownership over a community event that promotes the fostering of empathy and social change through the art of cinema.

**MIHS Broadcast Media and Marketing Seafair Campaign-** Students in Broadcast Media and Marketing are partnering with Seafair to create a marketing campaign and to rebrand our student radio station 889 The
Bridge this summer into a radio station that “super-serves” Seattle's largest and oldest annual festival.

While this is still a bit of a secret, and a mission in progress, during the week of Seafair "889 The Bridge" will become "889 The Boom" in honor of the iconic Log Boom on Lake Washington. Listeners will hear coverage of the blue angels and hydro races, interviews with hydro drivers and pirates, and continue to play great summer music.

During second semester while the radio classes are hard at work creating the imaging, conducting the interviews, curating the music playlists etc., to transform The Bridge for this event, the marketing students will work with Seafair on ways to build awareness of a legacy Seattle event that has a rich history that many of those new to our community or who are younger are not aware of.

There will also be marketing opportunities for MIHS students as they put together sponsorship packages for local businesses that want to support the programming on KMIH at a time when it will have a much larger audience than usual.

Radio students are responsible for designing the creative programming, broadcasting from the event, conducting interviews, etc. while the marketing students promote a Seattle tradition with young, new ideas to create revenue that will help support KMIH.

**Crest Horticulture Plant Sale** - The MIHS horticulture classes, taught by Kimberly Griggs, host an annual plant sale for the community to enjoy. Students are initially tasked with deciding on a theme for the plant sale. Last year the theme was Gnomes. All students working the sale wore their own decorated gnome hats so that they could be easily identified by customers. This year’s theme is Flower Power. Students will design the community flyer and write ups for the local newspaper, as well as distribute them.

Each student decides which crop they would like to raise for the sale based off their own interests. They can choose from any flowers, herbs, and vegetables that grow well in our climate zone. For example, a student who has a passion for cats will grow cat grass and catnip. Any plants remaining after the sale will be donated to a local Humane Society. Each student is responsible for raising the plant from a seed until it is ready to be sold at the sale. Additionally, students must establish reasonable prices for their crops based on the cost of seeds, soil, and pots used to produce their crops.

The annual plant sale starts the first Saturday of May and continues for two following Saturdays. Students are expected to work a minimum of two hours on two of the Saturday sale days. On the first weekend of the sale all horticulture students are expected to attend because it coincides with the annual Crest Fest. On this weekend, students are responsible for training non-horticulture students who help with the sale. This means they must educate them on the plants’ growth requirements such as watering and light, prices of the plants, etc.

**Theme 2: Pursue academic passions and interests**

**Elementary After School Clubs and Activities** - All four Mercer Island Elementary Schools encourage students to pursue their interests through before and after school programs that are sponsored by MISD staff, the PTA or private vendors. A wide selection of offerings include: gardening clubs, art and craft groups, chess clubs, karate, Sponge Language Programs, BOKS Fitness club, Lego, running club, rocketry, robotics, coding clubs, and many more. Additionally, music programs such as Steel Drum Band, Ukulele Club, Drum
and Mallet Club, Choir, Band, and Orchestra allow students the opportunity to select to participate in activities that expand their horizons and allow them to develop new passions.

**Elementary Musicals/Operettas/Talent Shows** - Each year, the elementary schools put on several productions and concerts to showcase their fine arts programs and allow students to develop their own talents through performances. At Lakeridge, these performances include the 5th Grade Operetta, Veteran’s Day Assembly, All School Musical, and three choir and steel drum band concerts. At Island Park the annual 5th grade play and a choral concert by each grade level throughout the year are highlights. At West Mercer, students perform for their peers displaying their musical interests through the Musical or Talent Show, the Mallet Club, and the intermediate choir. At Northwood, students explore their performance interests through the Choir and Drum and Mallet Club, as well as through the Spring Musical. Finally, all four elementary schools showcase student interests in the Fine Arts Showcase through art and musical performances by students.

**Science Fairs & Science Fun Nights** - Each of our four elementary schools partner with the PTAs to engage students in scientific inquiry and exploration, culminating in a community Science Fair or Science Fun Night. Students who engage in a science project are provided with guidelines and information about using the scientific method to ask a question and engage in an experiment in search of an answer. Student participation is voluntary and self-directed. Students are encouraged to pursue a question of interest to them, and each year the fairs display a wide range of scientific interests and topics. The science fairs/fun nights occur in the evening, and students who attend are provided with various supports that encourage them to ask clarifying questions of the presenting scientists and record the learning they gain from exploring the various scientific presentations. Outside agencies with a scientific focus—Pacific Science Center, Issaquah Salmon Hatchery, the Seattle Children’s Museum, or the Reptile Man—are often invited to participate in the evening event.

**IMS Independent Research Project (IRP)** - Pursuing academic passions and interests is what inspires students to engage in the instructional materials and make connections to the world outside the classroom. One such example in eighth grade science is the Independent Research Project (IRP). First, students generate their own investigative question related to their hobbies, interests, and curiosities. Independent Research Project topics selected by our students range from lacrosse, football, and soccer to music, art, and even other disciplines of science (chemistry, physics, aerospace, etc.) depending on student preference. Once a question has been selected, students analyze and interpret current research to create a hypothesis/claim that answers their question. Following the scientific method, students then design and conduct their own experiment, collect and analyze data, and use that data to support or refute their original claim.

Students also strive to apply their results to other real world scenarios and identify and discuss potential sources for error in their experiments. While the skills needed for this rigorous work start much before eighth grade, this is often the first time they are asked to put all the skills together into one product. In preparation, students practice these critical thinking/problem solving skills with many scaffolded lessons and labs based on earth science topics we learn throughout the year, giving them the support needed to master necessary skills. Then when ready, the IRP offers students the academic freedom to explore what matters to them while applying those skills. In the process we get to make more meaningful connections with students by learning about what is important to them and they, in turn, gain a deeper, long-lasting understanding of how science is relevant in their world.

**IMS Jazz Band Club** - From seventh grade forward, any student who participates in band or orchestra has
the opportunity to pursue jazz, playing in large and small ensembles. The jazz band experience consists of approximately two days per week of instruction and playing opportunities for students who choose to participate. The group instrumentation is configured differently than a traditional concert band or orchestra, and the musical literature is quite different as well. Swing, Bebop, Afro-Cuban, Brazilian, Funk and Rock styles are typically among the performance repertoire of the group. A central and defining feature of jazz is that of individual and group improvisation. Improvisation involves students spontaneously creating improvised melodies within the context of a formal structure and a defined harmonic process. While it is true that a student can play anything they want during their solo, experience and instruction will lead them to the conclusion that certain note choices and rhythmic patterns sound better than others. This very fact provides a never ending puzzle of trying to find melodic motifs that sound better and better as the student progresses. The problem solving and innovation that results is in effect a spiraling curriculum that provides a continual challenge for growth. A beginning student can successfully negotiate a set of chord changes to create a solo that sounds great and “fits.” A top tier professional would play a solo over the same structure that would be tremendously more complex and highly expressive. The result of this experience is inspiration for students to engage in jazz playing opportunities both in school and beyond that are limited only by imagination and initiative.

IMS Electives - IMS spotlighted three of its electives to illustrate the pursuit of passions and interests. These electives capture student interest, choice, and ownership.

- Media Tech/Digital Storytelling is a hands-on filmmaking class where students produce short, original films. Movie making technology has become so intuitive and accessible that more emphasis can be placed on quality storytelling. Students are often quick to develop a vision of the movie they would like to create; the challenge is learning to use cinematic language to tell those stories in a coherent, emotionally compelling fashion. The end results are often personal narratives reflecting the lives of middle school students. Working with peers to produce these videos also provides important opportunities to develop the collaboration skills essential for virtually all creative endeavors. This is one class where students do not need to be motivated or told to get to work. They are constantly busy in the various stages of film production. The passion and interest they bring to the class is often shown in the enthusiasm they display and the quality of their final products. It’s unique to have such a workshop-based learning experience for students at this age, but it works, and they really are the ones who drive the curriculum.

- Social Justice is a new elective at IMS and has received enthusiastic feedback from its participants. Between the two trimester classes, the two classes investigate race/ethnicity, sex/gender, and sexual identity (one class) and socio-economic status, ability/disability, and mental health (the other class). The purpose of Social Justice is to examine the identity-related inequalities that exist in American society. These topics are an interconnected web that also lead to discussions of language, politics, education, housing, and more. This class is discussion based and invites reflective, courageous students who are eager to step outside of their comfort zones in order to begin to understand the experiences of others and to share their own experiences. Discussions (based on readings, lessons, guests, personal experience, audiovisual materials, etc.) occur in both small and large group settings and are frequently passionate! Students often take these ideas and questions home with them, where they inform dinntime conversations, discussions between friends, and provide a different lens through which they view everything from media to politics to personal interactions. Feedback from one student, when asked about the impact of the class: "It had a huge impact, so big that I can't even explain it in words. It opened my eyes, made me see the world as the good and bad, not just through the small tunnel I was looking through before. It changed how I see everything."

- Drama II: During the Drama II elective course, students are required to write an autodrama
monologue; that is, a monologue that is about a real-life event in their past. Students take social risks for even taking Drama, as it can be daunting to put yourself on stage in front of a group of your peers. Furthermore, this assignment requires vulnerability and introspection, which can be challenging for even the bravest of us. During 1st Trimester, an 8th grader at Islander Middle School, wrote of her experience moving to the United States from Australia. She masterfully used the techniques of voice acting, blocking, and physicality to convey her range of emotions, including a deep, aching sadness at the prospect of rarely seeing some of her friends and family, to the uneasy excitement of a new beginning, and the intimidating task of being a “new kid” on the first day of school in a completely different culture. This student had no previous acting experience, but chose to take Drama as she was interested in trying something new, and had friends in the class. Her autodrama performance was a powerful pieces of theatre. Drama allows students to be more than just another person in a class, it allows them to connect with others at a very human level in being willing to share their experiences through theatre.

IMS Clubs

- Destination Imagination - Destination Imagination is a worldwide organization that sponsors creative problem solving competitions for students from kindergarten through university. This year IMS has 10 Destination Imagination teams. Each team is made up of 5-7 students and is tasked with creatively solving one of five complex problems and a surprise Instant Challenge. The general topic areas of the complex challenges are Engineering, Scientific, Improvisation, Fine Arts, and Technical. The instant challenges fall into three categories: performance based, task based, and combined. The teams have between 4-6 minutes to work together to create a solution to the challenge and present it to the appraisers. The solution to the teams' main challenge takes several months to create. This year's scientific challenge requires the students to: research and explore the scientific concepts used in the operation of amusement park attractions, then design and build an attraction that operates live during an 8-minute presentation. Integrate this attraction into a story that features the attraction operating in an unlikely location. Ensure that the technical innovation and design of the attraction is based upon the scientific concepts used to operate the attraction. It is important to note that the team's solutions must be created entirely by the team. Any outside input, ideas, or direction could cause the team to lose points or to be disqualified completely. The adult coaches may only provide organizational and team-building support. What skills do students develop while participating in DI? Teamwork, creativity, persistence, communication, organization, presentation/improvisation, and patience with themselves and others.

- Performing Arts - The IMS school play is an engaging opportunity for kids to get involved in something bigger than themselves, to be a meaningful part of a team and to see a concrete outcome directly tied to their hard work. Whether students have a passion for acting, a love of set building or scenic design, an interest in the technical aspects of creating a show, or anything else, there’s a place for them in the play! There’s a saying: “There are no small parts, only small actors,” and the message is an important one for students to hear and internalize. Everyone’s contributions matter, whether you’re the star of the show or quietly working behind the scenes. Involvement in the school play helps students learn out to work collaboratively and creatively, to roll with the punches, to plan and prepare, to take risks, and to invest in the wonderful community we create together. With auditions in December and performances at the end of April, this significant commitment results in a play that is truly a labor of love from all involved.

- IMS Robotics Club/First Lego League Challenge - Students work in groups of 2-3, to design, build, test and program autonomous robots to solve different challenges using Lego Mindstorms EV3 technology. Teams compete on a table-top playing field. It adds up to lots of fun while they learn to
apply science, technology, engineering, math concepts, teamwork, problem solving skills and creativity.

**MIHS Emerging Technologies Project**- During a unit focused on technology and sustainability, students in Julia DeBroux’s classes work in groups to imagine or research a future technology that could be used to solve an environmental problem or other biology-related issue. Students thoroughly research their chosen issue, seeking to understand the dynamics of the system(s) to which the problem is related. Students then identify or imagine a technology that could be applied to a leverage point (key flows or components of a system which have a significant effect on the system’s dynamic behavior). Each group prepares a description of their technology and presents their proposals to the class. Some recent topics explored by students are: Smog free cities; Changes in natural ranges of disease vectors as a result of global warming; the dangers of monoculture and GMOs to food quality; and ocean acidification.

**MIHS Psychology Club**- During the 2017-2018 school year, students from Jeff Randolph’s AP Psychology course expressed an interest in exploring psychological phenomenon not covered by the curriculum. Some of this extracurricular interest derived itself from their reading of non-fiction texts. One student had read *Moonwalking with Einstein*, a book by science journalist Joshua Foer. Foer followed competitors at the US Memory Championship, and learned various techniques and mnemonics to improve memory. Student Xavier Xiong was so enamored with the possibilities of the Method of Loci, that he wanted the technique taught to the class. He soon came to realize that there were many topics that he wanted more information about and that there were a number of other students who also wanted to dive deeper into the concepts than a single class period would allow; thus, the students established the MIHS Psychology Club.

Members of the club enjoy watching the show *Brain Games* during club meetings, and just as that show uses booths and unsuspecting participants to teach and learn about psychology, the psychology club members want to showcase psychology in the school through a fair in mid-March 2018. The plan is to host the fair, and in an afternoon present a mix of demonstrations, illusions, memory games, and posters detailing studies and seminal works. Additionally, the club plans to sponsor a Mental Health Month this spring focused on bringing awareness to mental illness.

**Theme 3: Beyond traditional curriculum and beyond the traditional classroom environment**

**5th Grade Outdoor Education School Experience**- During their 5th grade year, all MISD 5th grade students spend several days and nights at Islandwood Learning Center on Bainbridge Island. The educational program at Islandwood turns the outdoors into an environmental classroom. Students engage in field studies, exploring environmental stewardship and learning and teamwork, and expanding and enhancing the science learning they engage in throughout the school year.

**IMS 6th grade LORAX integrated unit**- During a two-week unit, sixth-grade students explore the topics involved in environmental issues through a study of Dr. Seuss’s book *The Lorax*. *The Lorax* is a story about destruction of the environment due to the growth of industry. The unit includes work in language arts, math, and science as students gather background information to develop land management plans that would rewrite the end of the story to be more eco-friendly. Throughout the unit they work in three different small groups to help strengthen their teamwork skills. The lessons include: reading and sharing articles of real environmental problems and how those situations were handled; understanding that different stakeholders can have different points of view based on their wants and needs; and looking at the environmental impact of various activities and choices. Students participate in a program presented by the Pacific Science Center that
explores the use of green energy and the way Washington State is exploring new sources of energy. Students travel to the Mercer Slough to become an engineer and learn about the design process and how it can be used to clean up water, restore habitats and provide healthier places to live. The project allows each group to focus and do research on the features of the management plan that interest them most - renewable energy sources, innovations in transportation, minimizing pollution or even the economics of land management. Each group develops and then shares a clear, concise presentation of their plan. This project is an opportunity for students to apply their creativity while becoming more aware of real-life problems that affect the world we live in. At the end of the school year students spend a day in Pioneer Park working to restore the parks habitat, learn about invasive species and understand the impact they have on our local eco-system.

**MIHS ESS Students Attend National Geological Society of America Meeting**- On October 23, 2017 students enrolled in Earth and Space Science (also offered as Geology 100 through EWU), were able to attend the national Geological Society of America (GSA) meeting at the Seattle Convention Center, with the help of funding through a PTSA/MISF grant. This was a one-time opportunity to see a science convention in action, since the national convention has a different host city each year.

The GSA meeting attracts geologists from all over the world to present their research and to connect with other scientists. Students were able to wander the Exhibition Hall, where hundreds of universities, companies, and research organizations had booths with information and demonstrations. Exhibitors included the American Association for Environmental and Engineering Geologists, Association of Women Geoscientists, American Meteorological Society, IKON Mining and Exploration, NASA, The FOSSIL Project, US Geological Survey, and many universities around the world that offer earth science programs. Students also had the opportunity to visit a poster session, where current research by scientists was displayed and discussed.

The visit gave the students an important and exciting glimpse at up-to-the-minute activities in the field. Each student had their own unique experience, since they were not led around as a group, but were allowed to visit those booths that interested them the most. Their feedback was outstanding. Students appreciated the exposure to real-world geologists and earth science organizations.

**MIHS Orchestra Performances in Multiple Communities**- Mercer Island High School Orchestra Students embraced Fundamental 4 by sharing their talent and musical passion in the wider community. The Symphonic and Philharmonic Orchestras performed at Retirement Centers and Montessori Schools during the Orchestra Trip Cycle: Year 1 - Disneyland; Year 2 - Vancouver B.C.; Year 3 – Mercer Island. In Vancouver B.C. and Southern California, they were anticipated and welcomed guests at local retirement centers, performing for both the general guests and residents in the Alzheimer’s units. Students did not just perform, they engaged the audience with conversation and “selfies!” During the Mercer Island rotation, students performed at Aljoya, Island House, Covenant Shores and the Mercer Island Montessori School. As smaller ensembles, the Chamber Orchestra gave regular performances at the Women’s University Club in Seattle and the Open Window School. Even smaller groups (2-4 members) shared their talents at the Island Retirement Centers and the Chamber of Commerce. Additionally, all orchestra students performed an annual small ensemble in the community.

Students individually chose to participate in the Seattle Music Partners where they volunteered at elementary schools in the Seattle Central District teaching (guided) private lessons and providing a stable platform for students who don’t have much stability in their lives. The new Tri M Music Club – music students who want
to provide musician community settings – was spearheaded by orchestra student Minje Park.

**Urban Plunge (MIHS)**- Urban Plunge in an experiential learning weekend for seniors, coordinated by teacher Dino Annest, that includes a service lesson (3-5 hours on a preceding Saturday) including topics like economic disparity, distribution of tax dollars in economically challenged communities, services provided by non-profits, rights and opportunities for immigrants and those who are mentally challenged, service opportunities for college and beyond, and the ethics of being a free and responsible citizen in 21st Century America.

Students spend approximately 28 hours on the streets of Capitol Hill in Seattle being among those who are living and struggling on the streets. The students are clear about the fact that they are not homeless, but a large part of the experience is the tedium that comes from having nothing to do and nowhere to go that is your own.

On Saturday of the Urban Plunge, students serve as part of the workforce for Central Lutheran's Lunch on Capitol Hill, St. Mary's Food Bank, the Lifelong AIDS Alliance, and several other service organizations in Seattle. Students keep a journal in which they respond to several questions about the **What? So what? and Now What?** of the weekend. They are also charged with holding at least one conversation with someone outside of their socio-economic-demographic (age) group. The conversations and experiences are shared each night and at the conclusion of the weekend in a group discussion with all participants.

In the 18 years that Annest has led this event, 90%+ of attendees have stated that the weekend was of great value and without question worth their time, especially as they prepare to leave the island for college.