

Monitoring of Board Policy 2020 – Fundamental 5
May 10, 2018

Fundamental 5: Cultivate and foster thinking and process skills such as analytical and critical thinking, cross-discipline thinking, creativity, innovation, leadership, collaboration, communication, problem-solving, and information and technology literacy in curriculum design.

This represents the fifth annual full governance monitoring of Fundamental 5. On June 6, 2017, the Board revised Fundamental 5 to include the word “leadership.” Accordingly, this report incorporates indicators related to leadership. Although the report is based on the previously approved Superintendent Interpretation, it addresses the concept of leadership in anticipation of the Board’s approval of the revised Superintendent Interpretation attached to the agenda. The report highlights both qualitative and quantitative indicators of measurement, using the mixed method analysis.

QUANTITATIVE INDICATORS

Numerous quantitative factors from the Educational Effectiveness Survey (EES) were considered to highlight implementation of Fundamental 5. Significant revisions were made and additional questions were added to the survey during the 2012-13 and 2013-14 school years. Questions used as indicators were a result of the revisions and additions to Fundamental.

Three changes to the quantitative data for the 2017-2018 monitoring should be noted when interpreting the results.

- Two student EES questions were added this year to capture *leadership*.
 - Students are involved in decisions about things that affect them in this school; and
 - In class we often work with other students to solve a problem.
- The Center for Educational Effectiveness (CEE) made a significant change to the EES data calculations for the 2018 administration. (A dark line separating 16-17 and 17-18 provides a visual indicator.) Prior to the 17-18 year, CEE treated *No Responses/Not Applicable* as the missing group. These responses were calculated (percentages) on the entire N count. Until now, CEE did not have a way to show, at the item level, the number of respondents who did not answer the question.

Using a new production environment, CEE can now calculate the percentages based on those respondents who actually submitted an answer per item. This provides the data in a more authentic view of the perceptions of those who actually responded to each item rather than who participated in the survey as a whole.

Example: A teacher wants to formatively assess students on 3 digit division and report to a PLC on the effectiveness of their lessons.

- 30 students in the class
- 20 students in class on the day of the assessment (10 absent)
- 10 students meet standard on the teacher’s assessment.

Given this scenario, 10 of 20 students (50%) met that standard for division based on this assessment given that day. A calculation of 10 of 30 (entire class) would be 33%, but this is misleading because 10 students were absent and did not participate.

3. As part of a Highly Capable program review this year, perspectives from our third graders were a critical component of the inquiry. Thus, for the first time, third graders were surveyed and not just fourth and fifth graders in the elementary schools.

Additionally, data from specific components of the Danielson rubric are used as indicators to further illustrate progress in Fundamental 5.

Theme	Indicator	SY 13-14	SY 14-15	SY 15-16	SY 16-17	SY 17-18
Theme 1 – Analytical and Critical Thinking, Cross-Discipline Thinking and Problem Solving	% 3rd-5th grade students who agree that “I am good at figuring out the best solution to problems I’m facing.”	79	74	80	78	83
	% secondary students who agree that “I am good at figuring out the best solution to problems I’m facing.”	72	74	77	76	74
	% 3rd-5th grade students who agree that “I solve problems by first breaking them into smaller steps.”	73	57	64	57	64
	% secondary students who agree that “I solve problems by first breaking them into smaller steps.”	66	56	58	60	56
	% 3rd-5th grade student who agree that “When my solution to a problem is not working, I try to figure out what went wrong.”	87	81	88	86	88
	% secondary student who agree that “When my	79	78	81	80	80

	solution to a problem is not working, I try to figure out what went wrong.”					
	% elementary staff who agree that “Students are provided tasks that require higher-level thinking skills.”	64	69	73	72	91*
	% secondary staff who agree that “Students are provided tasks that require higher-level thinking skills.”	64	66	67	59	86*
	% of teachers rated proficient or distinguished in Danielson’s component 3c “Engaging Students in Learning”	89	83	93	93	NA
Theme 2 – Creativity and Innovation	% 3rd-5th grade students who agree “I try to think of many solutions when I have a problem”	82	77	84	87	86
	% secondary students who agree “I try to think of many solutions when I have a problem”	70	73	80	76	71
	% 3rd-5th grade students who agree that “I am a creative person.”	92	89	91	89	91
	% secondary students who agree that “I am a creative person.”	77	78	78	77	77
	% 3rd-5th grade students who agree that “I can come up with new ideas.”	93	86	94	89	90
	% secondary students who agree that “I can come up with new ideas.”	81	84	85	84	84
	% 3rd-5th grade students who agree that “I like to	87	81	87	84	88

	imagine new ways to do things.”					
	% secondary students who agree that “I like to imagine new ways to do things.”	74	74	78	74	75
	% of teachers rated proficient or distinguished in Danielson’s component 3e “Demonstrating Flexibility and Responsiveness”	94	94	93	93	NA
Theme 3 – Communication, Collaboration, and Leadership	% 3rd-5th grade students who agree that “My teacher(s) help us learn in more ways than just talking in front of class.”	88	83	85	80	89
	% secondary students who agree that “My teacher(s) help us learn in more ways than just talking in front of class.”	64	67	66	63	68
	% 3rd-5th grade students who agree “Students are involved in decisions about things that affect them in this school.”					57
	% of secondary students who agree “Students are involved in decisions about things that affect them in this school.”					38
	% 3rd-5th grade students who agree “In class we often work with other students to solve a problem.”					64
	% of secondary students who agree “In class we often work with other students to solve a problem.”					63
	% of teachers rated proficient or distinguished in	83	74	83	83	NA

	Danielson’s component 3b “Communicating Clearly and Accurately”					
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NA – Not Available - Data not yet available for current school year

The quantitative student data from the 2017-2018 EES survey used to monitor Fundamental 5 suggests that responses analyzed over time have remained consistent. Data are generally high and indicate a positive perception of thinking skills, creativity, innovation, leadership, collaboration, communication, and problem solving.

- 88% (elementary) and 80% (secondary) report they agree or strongly agree that when solutions are not working they try to figure out the problem.
- 91% of elementary students believe they are creative.
- 84 % of secondary students agree or strongly agree that they can come up with new ideas.

Through the year-end reflection process and school improvement plan development, school teams will be investigating and addressing areas of concern including:

- The traditionally low percentages of students who agree or strongly agree that they solve problems by breaking them into parts.
- The relatively low percentages related to the new questions which are indicators of leadership.
- The perception in secondary classrooms that if 68% of students believe that they learn in more ways than teacher lecture, this leaves 32% who believe this is the predominant method.

The staff question, “Students are provided tasks that require higher-level thinking skills,” showed a significant spike in 2017-2018. This score has been designated with an asterisk (*) because staff has not yet had a chance to fully explore this change. Researchers from the Center for Educational Effectiveness and the District have exchanged emails at the time of this report and continue a collaborative conversation to learn more.

QUALITATIVE INDICATORS:

The following qualitative data provide windows into Fundamental 5 – Develop 21st Century Thinking and Process Skills. Several, but not all, will be highlighted at the Board meeting on May 10, 2018.

Theme 1: Analytical and Critical Thinking, Cross-Discipline Thinking and Problem Solving

NW 21 Acres Learning Center experience: In conjunction with their science nutrition unit and social studies focus on Washington state regions and resources, fourth grade students visit 21 Acres Learning Center in Woodinville, WA. While there, the students study the agricultural heritage of our region, learn about sustainable agricultural design and technologies, and explore ways to maximize the beneficial aspects of fresh local produce and farm products. Utilizing the center's commercial kitchen, the students learn about the economics of small farms, conservation systems that support them, and how to help their families cook healthier meals. Students plan and prepare a healthy meal, review composting procedures and examine other green principles.

IP Leonardo da Vinci Artist/Scientist-in-Residence Project: Through a MISF grant, fifth grade students work with an artist/scientist-in-residence to create flying machines based on the work of Leonardo da Vinci. After a short lesson on da Vinci in which students learn about his belief that art and science go hand in hand, students make observations about nature (birds, bats, water, wind) and design miniature flying machines out of balsa wood. They sketch their ideas, determine wingspan and body (fuselage) measurements, create templates out of tissue paper (similar to sewing patterns) and build model frames. During the lesson, students collaborate, problem solve, engineer, communicate, and proudly display their works of art/science.

LR Integrated Enrichment: Using MISF and PTA grants, Lakeridge offers students a variety of enriching opportunities that require creatively problem-solving, thinking critically about themselves and the world around them, and integrating skills and learning. Several Artists-in-Residence teach kids to think creatively and critically across multiple disciplines. The Toymaker, Rick Hartman, taught our first and fourth grade students how to create spectacular toys from around the world while learning about science, math, history, art and invention. Our Green Team leads recycling, composting, gardening and Earth Day events that ask students to use science and social science learning and skills to save our planet. Our PTA sponsors an annual Science Fair that gives additional awards for science projects and presentations that integrate Math and/or Environmental learning into their work.

LR Merchants with a Cause: All 3rd, 4th and 5th grade Highly Capable program classrooms spent two months preparing for our annual "Merchants for a Cause" event. Students started the project with a visit to the Bill and Melinda Gates Foundation Discovery Center to experience how the Gates Foundation works with partners to develop innovative solutions that can affect change locally and globally, and then generated ideas for how students can make a difference to causes they care about. The project culminated in an event at which students sold goods they had invented, created and/or prepared to parents, community and other students, donating 100% of their profits to their chosen cause, the International Justice Mission.

Elementary Interdisciplinary Unit: This interdisciplinary unit allows students to claim ownership of concepts in science. Fifth grade teachers at Northwood have students produce

videos to teach and learn about the solar system and flight. Each child is responsible for a particular idea (for example: Saturn, gravity, or thrust). The students create a video about that idea utilizing a green screen, complete with learning goals for their fellow classmates. Students vet each other's videos to check for accuracy and then present their final project to their home class and another class.

This interdisciplinary unit encompassed the following:

- Using technology (the big buy-in for students)
- Reading for information, both print and online
- Online researching of current science sources
- Creating a storyboard to sequence the video
- Writing (and public speaking) a script
- Creating a video using green screen technology
- Using alternative assessment techniques, including the video product and a jointly prepared summative assessment where students author the questions

Elementary- Providing Rigor Through Questioning and Task Development: Teachers have continued to apply their learning about the Hess Rigor Matrix and other tools for questioning. The purpose is to strategically build questions at different levels of complexity and rigor, pushing students' thinking not only about key ideas in a text, but also about an author's craft and the structure of a text, and how they affect meaning. In the subsequent professional development for the K-2 and 3-5 *Mondo* English Language Arts (ELA) implementations, teachers engaged in learning and collaboration about ways to use leveled texts with students. Part of that work included considerations of rigor, and how the task surrounding a text can be altered to boost the cognitive demand in one group, while presenting a less demanding task for another group that needs more scaffolded support. Teachers have also applied these concepts of rigor to their work in writing, math, and other content area instructional planning.

WM Robotics: This non-competitive club participates in challenges similar to those used by FLL (First Lego League) but without the cost and time constraints of FLL competition. Student teams build robots and compete against one another during the annual Science Fair in April. This Science Fair competition serves as both a recruiting tool and as a competition venue. The club meets once a week throughout the year with 25 4th and 5th grade students participating this year.

IMS Computer Programming: All IMS students have multiple opportunities to utilize critical thinking and problem solving strategies through experiences involving computer programming. All 6th grade students are introduced to programming in two of their classes. In their science classes the students experience a series of lessons around basic coding using the LegoEducation Mindstorms curriculum. This unit culminates with an independent project where students model a “real world” working machine. In the 6th grade tech block classes, the students learn coding using a variety of platforms: Scratch, Swift Playgrounds, and Code.org. The 6th grade students

also learn basic computer software skills and explore concepts of digital citizenship and cybersafety in the required trimester TechBlock course.

Students in 7th and 8th grade explore computer programming in our Video Game Programming elective. For the 2017/18 school year, IMS is once again offering the Introduction to Programming elective which is a trimester long class in which the students learn animation and interactive web page programming using JavaScript, HTML, and CSS. Since the introduction of this class in the fall of 2016, the female enrollment in the programming class has increased. Beginning in the fall of 2018, IMS will offer an intermediate programming class as a follow-up elective to the introductory class or as a direct enrollment class for students who already have basic level coding experience. In this class students will continue to work with the code behind the web pages they see every day. In addition to the languages from the introductory class, students will add PHP to their repertoire in the intermediate class. IMS has participated in Code.org's Day of Code for the last several years.

IMS Sources of Strength Curriculum: In the month of March, the Sources of Strength peer leaders (under the supervision of Jayna Dash and Harry Brown) were trained to do presentations in 7th grade Science classes, around the topic of Depression and Suicide Prevention. For weeks leading up to the classroom lessons, peer leaders worked together to fine tune the script and make it very "real" for their audience. They used their creativity and initiative to learn about depression and gain confidence in speaking about it's warning signs and some helpful tips for helping a friend in need. Eventually, these students paired up and taught lessons for their peers, with the support of a Counselor. These peer leaders showed initiative by volunteering to present in the classrooms and manage the workload from the classes they missed as a result. They also used leadership skills to teach classes comprised of their peers. As a result of their involvement in the Sources of Strength club, these peer leaders were able to confidently engage with their peers, in a discussion about a real-world problem, which is very real and common among adolescents.

Bed of Nails: When teaching about pressure, MIHS chemistry teacher, Shannon Sue, wowed students when he taught them how to mathematically determine why it is not painful to lie down on something that would otherwise cut you. Sue presented students with a "bed of nails" and had students measure their body area and foot area with a partner. They then completed calculations to determine how and why they could lay on a bed of nails without being harmed. Students were fascinated to learn the science behind a trick often see on television without explanation!

History of Yoga Project: MIHS Yoga students complete a cross-discipline research project that places yoga in a historical context. In small groups students determine the impact that yoga has had on many cultures throughout time (BCE-present). Students then present the history of yoga

to their peers to reach a greater understanding of the long-standing impact of yoga and the cultural influences that are present in today's yoga experiences.

Art Blogging: MIHS art classes are not just about creating art, they incorporate many cross-discipline skills that allow students to reflect, analyze, and interpret artwork using evidence-based writing. For nearly every project in Chantel Torrey's art courses, students write blog entries about art in the world. Students incorporate math, science, and social studies as they describe, analyze, and discuss what they see in small group discussions and then students individually complete journal entries via an online blog to analyze real-world art and design challenges.

Theme 2: Creativity and Innovation

K-12 Destination Imagination: This extracurricular program takes place after school for interested students at elementary, middle, and high school levels. The purpose of the program is to "inspire and equip students to become the next generation of innovators and leaders." The program presents students with a challenge to tackle over several weeks. With support from coaches, students learn to imagine and innovate solutions to their challenges. They work collaboratively with their teams to create, develop, and practice a solution to the challenge. Following that they compete in a local tournament, and, if successful, advance through tournament levels to the Global Finals. This year, 22 teams took part in the Regional Tournament. Twelve of these teams moved on to the state competition. Three of the teams (one middle level, and two high school) will move on to the Global Finals.

Elementary Museum of Flight: Fifth graders travel to the Museum of Flight to participate in a simulation of space travel to Mars. Students must problem-solve their way to the red planet by accomplishing specific missions. This activity includes prior classroom preparation in which students are divided into teams focused on Communications, Data, Navigation, Medical, Probe, and Life Support. Incorporating problem solving, decision making, communication, writing, math, and reading comprehension skills, students create a mission plan that is tested for effectiveness during the simulation.

Elementary Science Center: Fifth graders at West Mercer were part of the "early adopters" for the new Science curriculum, TCI. Rather than the Museum of Flight experience the other 5th graders participated in, this year the West Mercer fifth graders spent a day at the Science Center participating in a trio of activities. The first one was heavily weighted to critical thinking and problem solving (the STEM side of science) with engineering at the center of their task. The tinker lab at the science center is geared to actively engage this age level in engineering a solution to a problem without giving the solution, letting students puzzle, collaborate and work through materials to solve a problem generated by the science center teachers. The second

activity was a trip to the planets of their choice and engaged the students in thinking and experiencing the solar system in ways they could not have experienced in the classroom (but could in a planetarium). Questions were encouraged and in response to the questions and concepts being taught the teacher could generate travel through the solar system as well as dive into particular areas of interest and study. An introduction to the solar system, NGSS standards around understanding the position of the moon, sun and stars in our solar system and curiosity about the way all of these bodies are governed by gravity was met and encouraged by the staff. The third activity was a planet projection of the earth in the open science exhibit area and a discussion of what tectonic plates might cause and look like on the earth with an orthographic projection of the same in real time in front of the students. New concepts about Earth's systems and how they interact were presented and interactions between students and staff through questions and answers were encouraged.

7th Grade Legacy Project: 7th grade students were challenged to develop their own passions by finding a way to impact a community and/or culture to which they are connected through problem solving into their passion with the potential of beginning their life's legacy. The topics explored this year varied widely: redesigning racing swimsuits and eliminating chlorine off-gassing in competitive pools, innovative cooling systems for technology (interviewed NASA), ethnomusicology as a new curriculum piece for richer history curriculums (interviewed UW ethnomusicologist), STA train issues for Mercer Island (interviewed local expert on transportation planning), creating sports facilities for a friend's village in China, and an interview with a mayor for a student who one day wants to be President. Students were expected to become deeply familiar with the details of the issue so that solutions were founded on accurate, detailed understanding. For additional understanding, students conducted interviews with an expert on the chosen topic. When it came time to develop a solution, students were challenged to synthesize their own ideas with other solutions proposed by published writers and thinkers building a larger plausible paradigm for their outside-the-box solutions. This project provided students with opportunity to apply skills developed side-by-side in Language Arts and Social Studies (and for many, skills from Science and Math as well). Students were challenged to consider their own roles thus defining their legacy. Actual products ranged from published websites, prototypes, visions that were long term outcomes, community campaigns, and initiatives to government leaders, innovative designs or big ideas for prototype development. If possible, students are encouraged to take next steps towards implementation of their visions.

6th Grade Language Arts/Social Studies: For their Unit Project on Ancient Greece, students were given a wide choice of creative ways to express their understanding about good citizenship: an illustrated children's book, an original art piece, an original illustrated poem, a good citizenship medal, brochure, or a board or card game. They also had a written piece that could be woven into their visual product or a stand-alone paragraph or two. They had to show how Greek ideals about citizenship have influenced us today and how these ideals have been expressed

in people (Teresa Shook, MLK) and/or movements (#NeverAgain, #MeToo, #BlackLivesMatter) in our society today.

IMS Band: 7th grade band students participate in a daily “call and response” brass specific warm-up. This is followed by improvisation activities, including improvising short melodies with appropriate stylistic norms and harmonic processes. These activities give students the facility and vocabulary to be able to improvise their own melodies. Students are also using Media Album in Schoology. In small groups, students perform improvised melodies while their partners record them. The examples are then uploaded to the Media Album so the students can share their innovation and creativity.

MIHS Science Olympiad: Students from the MIHS Science Club recently participated in the WA State Science Olympiad Competition in Spokane. During the Olympiad, students were challenged in several areas of science and events range from building events such as hovercrafts, helicopters, and Rube Goldberg machines to lab-based events such as forensics, material science, and chemistry experiments. Competitors must analyze, problem-solve, troubleshoot, and employ creative and innovative ideas every step of the way. MIHS Science Club members placed in five different events:

Anatomy and Physiology - 4th Place Zach Leung and Hannah Lebow

Interrogating the Brain - 4th place Marissa Garrido and Aleksandra Kogalovski

Optics - 3rd place Minje Park and Leonard Jung

Dynamic Planet - 3rd place Ben Molina and Thomas Horton-King

Mission Possible - 4th place Kelly Shi and Thomas Horton-King

Biology Brain Experiments: MIHS Biology students select a question or topic of inquiry related to brain function and then they research and develop a hypothesis for the function. Students then design an experiment to test their hypothesis, collect and analyze their data, and then present their conclusions in a formal report and presentation for the Biology Symposium that is attended by parents and community members. This project allows students to pursue an area of interest related to brain functionality and then leverage their creative and innovative ideas to design their own study and present their findings.

Developing a Business Plan in MIHS’ Business, Communications and Technology Class:

The Business Plan Unit that 9th grade students in John Stafford’s Bus/Tech class completed was roughly six weeks in duration and was the largest single project of the year. Students were responsible for designing merchandise and creating a plan for selling the merchandise through their "fictitious" restaurant. The final plan (roughly 25 pages in length) was comprised of six sections: (1) Product Design; (2) Business Strategy; (3) Financial Projections; (4) Organization Chart; (5) Marketing Plan; and (6) Logistics Plan. The students used four software platforms to complete their work -- Adobe Illustrator or Sketchbook to conduct product design (of t-shirts and

other apparel); SmartDraw or Organimi to create organization charts; Excel to create pro forma financial statements; and PowerPoint to create presentations. The final component of the assignment was for each student to create a 15-minute, 15 slide PowerPoint presentation to a student "Board of Directors."

Theme 3: Communication, Collaboration and Leadership

Math Talk and Student Leaders in K-5 Mathematics Instruction: Math Talk is a research-based structure used in every classroom to support students in developing their ability to share their strategies for problem solving, describe and justify their thinking, and engage in student-to-student discourse about mathematics. In Math Talk, teachers provide a routine in which students solve mathematics problems, individually, in partners, or in small groups, and share their solutions and solution strategies with the class. Other students listen, ask clarifying questions, and provide feedback, with scaffolding and support from the teacher as needed. Teachers can capitalize on errors and creative solution paths to address misconceptions and enhance everyone's learning. Alongside Math Talk, classrooms use Student Leaders, another core structure in Math Expressions, to support student thinking and learning in mathematics. After initial routines have been established, teachers release the leadership of various aspects of the instructional block to Student Leaders. They may lead Math Talk, Quick Practice, or other activities as they engage in math learning. As Student Leaders grow in their skills, teachers are able to step back more and allow mathematical discourse to occur between students as they engage in problem solving and mathematical thinking. We intend to provide on-going coaching and supports for our teachers to help them increase the strategic use of these structures to support better mathematical discourse.

Elementary *Being a Writer* Curriculum: The instructional strategies and practices in the *Being a Writer* develop students' oral and written communication and collaboration skills. The architecture of lessons includes a social or collaborative element where students are encouraged to discuss with a partner their ideas about writing or the lesson target of the day. Students work collaboratively with writing partners to help one another develop a text or to analyze and revise a collaborative text. Students develop their oral and written communication skills while thinking critically about the craft and structure of writing.

LR Student Voice and Leadership Clubs and Councils: Student voice and leadership is a vital component of the Lakeridge community. Through a variety of student clubs and councils including Student Council, Principal's Cafeteria Council, Safety Patrol Leadership Team, Green Team and Garden Club, students give input and initiate school-wide fundraisers for causes, advise school administration on concerns and solutions in the cafeteria and playground, ensure safety before and after school, and oversee our composting, recycling and green efforts schoolwide. Our Garden Club will be hosting a "Day in the Garden" for every grade level and

will donate baskets of fresh vegetables to the Mercer Island Food Bank. All of these efforts are student initiated and led with staff and parents taking a backseat supporting role only.

Elementary Mondo's Bookshop Common Core Curriculum: The instructional practices and methodologies that are contained within *Mondo's Bookshop Common Core* have aided in students becoming better collaborators and communicators both with other students and teachers. The whole group reading sessions include Read-Alouds and Shared Reading. Read-Alouds are intended to allow students to develop and practice their listening skills, as they listen to a text, answer questions, and discuss meaning. Shared Reading allows students to have the text visible, but still encourages thoughtful discourse that involves deep analytical thinking through text-dependent questions. Students are asked to turn and talk with their peers as well as share with the whole class their thinking. The oral language component of *Mondo's Bookshop Common Core* assesses and fosters oral language in students. Oral language is an important aspect of learning to read, as it impacts both reading comprehension and writing composition. Throughout the entirety of the program, one can see connections to speaking and listening that the Common Core demands. Ultimately, this encourages the use of strong academic language whenever students are discussing texts.

Island Park Peer Buddies and Recess Mentors: Island Park's PLP teacher has collaborated with the school counselor and associate principal to provide a peer buddy program that connects 4th/5th grade students with students with disabilities to support positive peer interactions and enhance the opportunities for socializing during recess. Our twenty-eight (28) 4th/5th grade peer buddies have become ambassadors for students in our PLP program by thinking about how to involve them in physical activity and games during recess. Peer buddies are supported by PLP staff who help both the Recess Buddies and students with disabilities to continue to develop skills and have successful interactions.

Recess mentors are also 4th and 5th graders (typically in groups of three or four) who assist the recess staff in mediating recess conflicts among younger students. Each recess, rotating teams of fourth and fifth grades support students at recess by looking for instances of potential disagreement and conflict. They intervene and offer a variety of conflict-resolution strategies where appropriate. The intermediate elementary students received Second Step problem solving training so they were equipped to offer advice and strategies to students at recess. The school counselor and associate principal support further development of intervention strategies by meeting monthly with recess mentors and reviewing playground issues and situations they are seeing at recess. Recess mentors are offered support by brainstorming possible approaches, strategies, and solutions that might prevent or solve the conflict. The Second Step problem solving strategy is also reviewed at these monthly meetings.

6th-12th Schoology: IMS is completing the seventh year (since 2011) of all classes utilizing Schoology as an interface between the classroom and home, an online extension of the classroom. MIHS is finishing its third year of full school implementation, extending the use of the platform at the secondary level through grade 12. Schoology is similar to Facebook in its layout, usability, and two-way communication and collaboration opportunities. However, it is different from Facebook in that it is a closed community. Educators are thrilled with the way students use Schoology for communication and collaboration. When a student has a question they can post it to a classroom wall and both the students and the teacher can respond and dialogue about that question. Parents/guardians of students in grades 6-12 were emailed parent Schoology accounts for access to their child's activity. Schoology allows teachers to schedule the assignments for the classes in one place for students and parent to see upcoming tasks, assignments, and assessments. Teachers can also upload documents and use Schoology for online discussions and assessments. Our teachers have found incredible ways to connect Schoology with the 1:1 iPad implementation. The Schoology app on the iPads allow students to submit work from a variety of productivity apps (OneDrive, Google Drive, Notability, iMovie, etc.). Some teachers are also integrating the Learning Tools Interoperability (LTI) apps such as Turnitin, Nearpod, PlayPosit, and Voicethread into their Schoology pages, which allows students to login to these third-party tools from within the Schoology site. Schoology is a great tool for online learning, communication, collaboration, and increased student access to curriculum and supplemental content in grades 6-12.

IMS Leadership class: The IMS leadership class is a year-long course for students interested in enhancing their leadership skills. Students in this class play a key role in creating spirit days, Wednesday Morning Live, appreciation projects, friendly Fridays, and much more. In this course students learn how to be a more effective leader, work in groups, and take your dreams for IMS and make them a reality. Leadership is open to 7th and 8th graders. ASB officers must take this elective all year.

Building Communication Skills (Adult Transition Program & MIHS Compass Program): Students in the ATP Program and the Compass Program at MIHS practice communication and collaboration skills in preparation for their interactions post-high school. Noreen Bucknum, a Speech and Language Pathologist, delivers weekly communication instruction with Compass teacher Jeniffer Blaser to students while focusing on important things like non-verbal communication, how our values influence our communication, and how our communication influences our relationships. Students learn about important aspects of communication and are able to practice honing their skills in a small group setting while receiving feedback. In the Adult Transition Program led by Karin Shelton, students take their communication skills to the next level by applying what they've learned in social skills classes to the real world. Students practice navigating the public transportation system, planning group outings, and participating in group outings. Students learn to travel to Bellevue Square and other popular local destinations

independently, participate in leisure activities in a small group setting such as a picnic at the park, and learn how to prepare for, travel to/from, and work at job sites in areas of interest. Students take turns planning and leading weekly events for their peers. Following each event, students reflect on their successes and challenges, practice any skills that need more mastery, and devise an action plan for the next community event.

MIHS Journalism Program: The MIHS journalism program tries to create a classroom culture modeled on a newsroom. As such, they put a premium on speaking and listening skills, collaboration, critical thinking, and problem-solving. Within this culture they: i) Conduct weekly editorial meetings to address group dynamics, production issues, and ongoing/future projects; ii) Meet at least twice weekly to brainstorm stories that the news team will cover for both the print and online versions of the paper, identifying news that will matter to their readership; iii) Utilize group editing exercises after publication of the print edition to address issues with writing, design, and copy accuracy. From these exercises, the group decides what goals they will set for the next print edition to address these critiques (all meetings are led by the editors and mediated by the adviser); and iv) Expect that the editors and senior staff writers will train beginning journalists in newsroom systems (workflow, submission process, digital file storage, etc.) and appropriate technology (InDesign, Google, Docs, Word Press); and they take time to celebrate their individual and collective successes.

Lunchtime Library Learning: This year during lunches Information and Technology Specialist John Stafford has offered a number of seminars for students to learn about timely and relevant topics. Since students opt to give up their lunch period to attend these sessions, Stafford submitted a grant to be able to offer free lunch to attendees. Topics have ranged from plagiarism, to citation styles, to dealing with fake news. Sessions have been well attended with a minimum of 80 students per topic up to 126 students who were interested in learning about fake news. Stafford covered a variety of topics regarding the rise of fake news including: how technology has allowed everyone to be an author/publisher of information; the geopolitics of fake news; fake news typology; and the moral and ethical toll the emergence of “fake news” is having around the world. In addition to outlining some of the challenges of fake news, Stafford also presented students with potential solutions and action steps to address the infiltration of fake news such as: the need for a vision; asking the right questions; and tips for identifying fake news.

Theme 4: Information and Technology Literacy in Curriculum Design

K-12 Digital Citizenship: In acknowledging both best practices and federal mandates, MISD provides direct instruction annually for all students K-12 about Digital Citizenship. At the elementary level, topics range from safe websites and simple passwords for young students to protection of personal information, online safety and an introduction to cyber-bully prevention for older students. These lessons are extended in middle school with overarching themes related

to online safety, cyberbullying, intellectual property, and leaving a positive digital footprint. New in 2018, our Information Literacy Specialist and Technology TOSAs partnered together to teach a Digital Citizenship lesson to our 7th and 8th graders reviewing best practices, and engaging in a dialogue with the students about how the overarching themes of online safety, cyberbullying, intellectual property, and leaving a positive digital footprint, play out with the actual technology they interact with, and online sites they are using for school, social interactions, entertainment, and productivity. In 9th through 12th grades, these concepts grow in complexity and depth covering social media, etiquette, digital footprint and online presence as well as advanced search techniques and critical thinking for online research. These topics are most often embedded in classroom discussion integrated into the curriculum and student projects. In addition, school-wide activities are delivered periodically throughout the year via the Bridges advisory program.

K – 2nd Grade iPads: Students in our K-2 classrooms have access to a set of eight (8) iPads in each room. This allows for teachers to conduct a hands-on small group lesson or rotate students through independent stations by table groups or ability levels. Teachers also have the option to borrow from a neighboring class to acquire 16 iPads for a 1:2 model or borrow from all classes in that grade level for a 1:1 model when appropriate. All available apps in the separate K, 1 and 2 app catalogs have been aligned to the Common Core and are screened for content and age appropriateness. Students have access to supplemental subscription apps to support both Math and ELA standards through individualization. RAZkids (K-1st) and myON (2nd) offer this personalization through leveled online reading material with embedded quizzes and activities. Front Row offers math check-ins through adaptive practice, benchmark tests, targeted quizzes and fact practice along with word study, decodables, sight words and article reading/quizzes to support ELA standards. Students and teachers also use the subscription app Seesaw to create digital portfolios of work from all content areas to be shared throughout the year with parents.

3rd – 5th Grade 1-1 iPads: All Mercer Island 3rd, 4th and 5th grade classrooms participate in a 1:1 iPad program. With a dedicated iPad for each student, teachers are able to engage their classes on a new level. Particularly powerful is the ability for students to have instant timely access to online research, personalized subscription tools, and productivity/creativity tools. Students have access to Apple, Microsoft, and/or Google Productivity suites for word processing, slideshows, and spreadsheets. 4th and 5th grade students commonly take advantage of OneDrive and/or Google Drive to extend their learning and productivity time beyond the school day as they complete projects at home. Students also extend their learning at home and at school through personalized practice in key subscription tools: Front Row, myOn, and SeeSaw. Front Row supports students with adaptive practice in Math Common Core Standards, as well as leveled articles and word study options to support CCS in Reading. The myOn subscription enriches students' reading with thousands of leveled books with an emphasis on engaging nonfiction and Lexile check-ins. SeeSaw empowers students to share their work with an authentic audience of families and peers, pursue goals in fluency, and maintain a portfolio of

learning, as well as practice building skills in the positive and balanced use of social media in a secure environment. Beyond these powerful tools, students become critical consumers of information, learning to analyze web sources and maximize reliable databases such as World Book Online, Cuturegrams, and BrainPop. Some innovative ways that elementary students are leveraging iPads in innovative ways to promote learning include: iMovie for book trailers, NearPod virtual field trips, Book Creator publishing, greenscreen movies, infographics with Pic Collage, and other targeted apps to enhance the content.

6th – 12th Grade 1-1 iPads: With a focus on personalized learning from the MISD 20/20 vision, the 1:1 iPad initiative continues at the secondary level. All students in grades 6-12 are provided an iPad they can use during school and at home, to enhance their learning. For students, the iPad not only provides them an organizational tool, but it also opens up new opportunities for students to personalize their own learning and explore topics of their own interest outside of class time. Having the common, versatile, digital tool of the iPad has allowed teachers to be more flexible in allowing students to choose the format to demonstrate their understanding. Teachers in 6th – 12th grade benefit from the accessibility of information and the formative data they gathered from learning activities to help them better respond to the needs of their students.