



Making a Difference!

AGRICULTURE EDUCATION

REFLECT REPORT
2013-14

BACKGROUND INFORMATION

The agriculture program at BHS currently offers 12 different courses. The courses are: veterinary science, companion animal science, animal science, landscaping, horse science and management, FFA/youth leadership, agriculture construction, CIS/advanced animal science, home and farmstead improvement, natural resources, agribusiness management, and supervised agriculture experience. This year, we had 378 requests for an agriculture class and were able to offer 7 different classes. Along with the course offerings, students who are enrolled in a class are eligible to participate in FFA and do a Supervised Agricultural Experience (SAE). These two activities help develop students as leaders, prepare students for future careers, and introduce students to the extent of vocational agriculture.

NATIONAL STANDARDS

The guidelines for what is taught in agriculture classes comes from a variety of different places. Standards come from national Agriculture, Food, and Natural resources standards that can be found at:

https://www.ffa.org/documents/learn/FINAL_AFNR_Standards_v3_2_4_6_09.pdf

Besides these standards, classroom objects are guided by student interests, suggestions from area agriculture leaders, and the overall goal of showing students “where their stuff comes from.” Much of the content correlates to Career Development Events (CDEs) from the FFA Organization. This content can be found at:

<http://cde.ffa.umn.edu/Web/CDEbooklet.htm>

STATE AND NATIONAL TRENDS

Agriculture education is extremely important and will become even more important as the world's population increases. By 2050, the world will have more than 9 billion people, requiring more food, fuel, and fiber. In Minnesota, 1 in 5 jobs is connected to food or agriculture. It's no secret that the agriculture industry is in desperate need of highly educated individuals. In 2013, there were 43 open positions in ag education. Many of these positions are being filled by community experts or teachers with a variance. 14 schools in Minnesota were expanding their agriculture programs. Just next door, the Rockford school district has gone from no ag program in 2012-13 to one teacher in 2013-14 and they are expanding to two teachers for 2014-15. Not only are high school programs expanding, but agriculture is moving into middle school as well. This demand for more agriculture programs is being met by a shortage of qualified ag teachers.

BHM PROGRAM STRENGTHS

The ag program at BHS is a well known program. It is strongly supported by both the administration as well as the community. There is a core group of area experts that support the ag program and the Buffalo FFA chapter. Many community members are eager to volunteer and come into the classroom to share about their fields. The result is a real world experience that introduces students to both the typical "agriculture job" and those they may not have thought of as an agriculture-related job. This is evident in student surveys. Students find the animals in class, guest presentations, and hands-on activities to be the most enjoyable part of the ag program. As a result, many non-typical ag students are able to learn about the available careers in the agriculture industry.

There is also a developing group of student leaders within the ag program. The officer team within the Buffalo FFA, as well as non-officer members, work to lead their Chapter in the country's largest student led organization. These students learn about parliamentary procedure, how to run the finances of an organization, how to deal with conflict that arises and many other lessons that will benefit them in the future.

BHM PROGRAM LIMITATIONS OR CHALLENGES

One challenge that the program faces is the workload for one teacher. Teaching a large

number of preps, advising FFA, and keeping up-to-date on everything related to ag ed is a large workload. Also, scheduling is a big challenge. To be a member of FFA, students are required to be enrolled in one agriculture class each year. Often, students are not able to fit classes into their schedules to fulfill this requirement. Scheduling has also been an issue when it comes to the number of students signing up for classes. We have offered all 12 classes every year, and often classes don't meet the minimum number of students needed to fill a section. Finally, within the past 5 years, BHS has had four different ag teachers, and next year will be the fifth. The consistency within the ag classroom has been hard on students who are taking multiple ag classes or who are involved in FFA. Finally, another big challenge is the course offerings at BHS. The ag courses are very heavy in the animal area and light in the plants area. This has been brought up by community members on several occasions.

NEXT STEPS

There are several big steps for the future of the ag department. First of all, there will be a new ag teacher next year. The current teacher will be moving to the science department. This could benefit the ag program by possibly bringing more science into the ag department. There is also the possibility of having more plant-based classes and an assistant/co-FFA adviser in the future.

BACKGROUND INFORMATION

Business & Computer Technology is a rare department in that we only have courses offered at the high school. There currently are no computer or business courses in our K-8 programs. For 2014-15, we received over 1200 requests for our courses.

Computer courses have continued to grow into two computer graphics courses, three levels of computer applications and the new course next year in programming, STEM: Game It. Students also continue to also enjoy the web site development courses offered.

Content courses have also progressed including an addition to the career development with a 9th grade STEEP (Student Transition to Education and Employment Portfolio) course, an 11th grade College and Career Prep 1 course and a senior College and Career Prep 2 course. Updates have occurred in other content courses, most recently including a shift in the accounting courses to online curriculum and the integration of computer simulations into the Intro to Business and Marketing courses. We still continue to offer Personal Finance and Law and Order as one term electives as well.

Each instructor also includes either a hybrid or online option to one of their courses: Accounting, Computer Applications and Career and College Prep. Most recent advancement is the offering of Career and College Prep as a CIS course as well.

Instructors utilize Moodle as the platform for all courses including their online and hybrid courses. In addition, the courses implement other technology integration tools such as virtual simulations, document cameras, drawing tablets, quizzes and activities from Quia, online presentations using Prezi, a course management software and other Web 2.0 applications.

The department also offers two student activities including DECA (An Association of Marketing Students) and BPA (Business Professionals of America).

NATIONAL STANDARDS

The focus for standards implemented in our department are based off the National Business Educators Association. We also reference the International Society for Technology in Education standards when incorporating technology into our courses. To view our implementation, please visit [this page](#).

STATE AND NATIONAL TRENDS

Some states and many schools within MN have started to require a personal finance course in addition to the economics standards due to the growing need for financial literacy.

Missouri has also moved to require students to complete an online course as a high school graduation requirement.

Many schools have also implemented a scope and sequence for computer instruction including keyboarding in their elementary levels, beginning software applications at the middle level and advanced level courses at the high school level. Many schools in our area require courses beginning in elementary and continuing through 9th grade.

Another growing trend has been the increase in STEM courses offered. We are excited to have an offering next year to also begin introducing this into our curriculum.

BHM PROGRAM STRENGTHS

According to our student and community surveys we have much to celebrate. Students reported their satisfaction with our course to be 92%. In addition, 70% also stated the material was transferable to other situations, which is always one of our goals.

Parents also provided valuable feedback about the number of courses we currently offer and the rigor involved in them. The one course they requested we add is a programming elective. We have developed the STEM: Game It course for next year to meet this need.

Parents also reported finding value in our department.

As a department, we also feel that our diverse specialities allow us to deliver a variety of curriculum to students, of which, we pride ourselves on updating based on student survey feedback as well as state and national trends. Most recently, we added a CIS offering to meet student needs as well as current educational trends. We have also successfully advocated for up-to-date technology which has allowed us to maintain our computer labs.

BHM PROGRAM LIMITATIONS OR CHALLENGES

One of our biggest challenges is computer scope and sequence curriculum. Parents have been asking for this and stated again in our most recent survey the need for proper computer instruction at lower levels. They feel 9th grade is too late and the fact that it is an elective also needs to be evaluated.

An astounding 88% of students stated in their classroom surveys at the end of the elective Computer Applications course that they feel the course should be required and at the middle level. With computers such a huge part of our lives, we find it difficult to continue to allow students to progress K-12 without ever having any instruction on properly and effectively working with a computer.

We hope the district sees the impact computer curriculum could have on the day-to-day lives of our students and begin to required standard implementation and instruction beginning at the elementary level and continuing into the middle level so we may focus on elective advanced applications at the high school level.

The health and success of our students is also important. We want to assure students prepared for other courses such as English where 9th graders are required to produce lengthy documents. With a majority of students unable to type even 20 words per minute, we feel students are not adequately prepared. The push for more instruction at an elementary and middle school level is important so they can develop proper techniques before students are asked to utilize computer technologies and are allowed to develop habits that could be harmful to their health and well being.

Another challenge has been to get our Personal Finance course required. We have

brought proposals forward multiple times, but unable to get the request past the high school department chair review. With 77% of parents reporting they feel the need for it to be required, we will continue to pursue this avenue.

Students enrollment has declined in the past couple years. Students report the most common reason being conflict in their schedules. The two conflicts we see most often are music students and CIS and AP students. Students in a music program are limited to 12 course sections which they must fit in any required courses which leaves them with very little room for electives. CIS students also are limited with those courses taking 2-3 of their terms as well. With the added program of AVID, we have also seen a reduction with those 10th and 11th grade requests due to their required year-long AVID course. This removes 4 elective offerings for each student each year.

As a department, we have identified another limitation as our inability to effectively cover our broad range of curriculum due to limited staff. Limited staffing has also resulted in a lack of a K-12 scope and sequence throughout the district. In addition to limited staffing, we also encounter unreliable technology services. These unreliable services often hinder our ability to effectively and efficiently deliver our curriculum, as well as student's ability to complete assigned work.

NEXT STEPS

The department will be exploring trends and options <http://10.241.0.30/contentfiltering/AuthenticatePopup.aspx> in delivery methods and resources currently available. ... Include any possible areas of exploration you know you'll be investigating.

The Business and Computer Technology Department has identified several next steps. First, we will build upon our current knowledge of local and state trends by researching Minnesota school districts with model business and computer technology programs. We will use this research to make changes that our within our control, and continue to encourage and attempt to develop a K-12 scope and sequence. Additionally, we will continue to submit course proposals for required Computer Applications and Personal Finance courses within the scope and sequence. Finally, we will use our findings to continue to modify and adjust current course offerings as we deem necessary.

BACKGROUND INFORMATION

Family and Consumer Sciences (FACS) is the comprehensive body of skills, research and knowledge that helps people make informed decisions about their well being, relationships and resources to achieve optimal quality of life. The field represents many areas, including human development, personal and family finance, housing and interior design, food science, nutrition and wellness, textiles and apparel and consumer issues. Family and Consumer Sciences has been supporting individuals and families for over 100 years.

FACS is unique--FACS provides an educational foundation that weaves together a practical understanding of all of the core academic areas. Through hands-on opportunities, students experience real life situations and learn to problem-solve.

Family and Consumer Sciences teachers have been prepared to focus their perspective to think of content as something to think with rather than simply as something to be acquired, and that the role of students as users and developers of knowledge. The problem-focused, process-oriented approach of FACS courses recognizes that:

1. Family life is significantly related to other arenas of life, such as work life and civic life.
2. FACS is relevant for all students regardless of socioeconomic status, college and career plans, or the school curriculum pursued. The ability to reason that is necessary for our complex and challenging lives and the ability to understand its complexity, do not “come naturally” as often assumed.

FACS teachers in the Buffalo-Hanover-Montrose school district continuously monitor the needs of families nationwide, in MN, and in our communities through active involvement in professional associations, teacher leader groups, and research journals. A FACS Advisory Committee of local business and community members to provide trend data and share expectations and needs in employees they hire. We have adjusted curriculum offerings to address the practical

questions affecting adolescents and families. Students in our district benefit from FACS curriculum throughout middle and high school. Most courses are one quarter-long and for 2014-15 include:

- 7th and 8th grade FACS (required)
- 8th grade elective courses - Foods 101 and Textile Discovery
- High School elective courses - Senior Strategies, Personal Financial Management, Child Development and Parenting, Creative Foods, Gourmet Foods, Hospitality Foods, and Sew Creative.
- Three high school classes have articulation agreements with St. Cloud Technical and Community College for students to earn college credit.
- FACS courses are part of the Arts Magnet program.

NATIONAL STANDARDS

National Family and Consumer Sciences standards were established in the 1990s with leadership from the National Association of State Administrators for Family and Consumer Sciences.

The national FACS standards address four processes that students need to develop:

1. Thinking (through reasoning for action);
2. Communication (through interpersonal relationships);
3. Leadership (also through interpersonal relationships); and
4. Management (through the consumer and family resources and related content standards).

The process and knowledge standards were established to “empower individuals and families across the lifespan to manage the challenges of living and working in a diverse global society.” The standards are addressed by approaching problems through real-world scenarios, asking critical thinking questions to foster reasoning, and linking academic and FACS content in teaching.

STATE AND NATIONAL TRENDS

Current trends that relate to our field:

- Overall obesity rates have plateaued but continue to be a leading health problem.
- Research is being conducted currently on how microbiomes impact the gut.

- People are not financially literate and continue to overspend and not save.
 - The make-up of families has changed. Children continue to be impacted by divorce, single family households, and poverty.
 - The important role of Family and Consumer Sciences in schools received national attention through several media outlets.
 - ★ A *Wall Street Journal* article recognized the importance of FACS and highlighted Japan, South Korea, and Finland as countries that excel in math, science, and language arts and require FACS classes from fifth grade through high school.
 - ★ The “Good Morning America” news program discussed the value of FACS knowledge and skills because parents are working and don’t have the time to teach these skills or lack these skills themselves.
- After surveying Minnesota FACS teachers, we found that consistently strong FACS programs offer classes in Personal and Family Finance, Career Exploration, Foods and Nutrition, and that FACS classes are aligned with STEM and service learning. Most of the schools require FACS in middle school, and some high schools currently require FACS classes including Personal Finance, Career Exploration and Senior Strategies (a new class we are offering as an elective in 2014-2015 school year).
- The movement toward results-oriented learning and seamless transitions from school to work and future learning.

BHM PROGRAM STRENGTHS

The Family and Consumer Sciences program at BHM schools has many strengths as reported through the parent, community, and student surveys. The BHM FACS teachers are committed to continuous improvement and are constantly evaluating and modifying activities and teaching methods to ensure student learning. Below are some examples.

1. Parent and community connections are firmly in place through regular communication and student involvement with community organizations. BCMS and BHS parent newsletters include articles regularly about what students are learning in FACS. Teachers regularly email parents to keep them current on classroom activities and student progress. Individual meetings with parents and students provide face-to-face exchange on a variety of issues.
2. We are meeting the expectations of parents and students in our district. According to parent and community surveys there is a strong correlation between what is taught in BHM FACS courses and what parents see as extremely important skills

for their children to learn. Parents stated that as a result of FACS classes their students “show greater responsibility, confidence and independence at home;” “are making healthier food choices outside of school;” “(my children) are becoming more informed individuals;” “our students bring home topics being discussed in FACS classes and these provide a catalyst for family discussions at home.”

Students state they are motivated by the real-life, hands-on, practical lessons and recognize the connection between what they are learning in class and their personal life.

3. For four years, members of the FACS Advisory Committee have made real contributions to our classrooms and thought processes. Committee members have served as classroom speakers, attended webinars and provided feedback, provided local community data, and offered their real-world perspectives on what they need in the workplace from teens and adult employees. Their perspectives on what young people lack has confirmed the relevance of what FACS classes offer students to build their personal ability to succeed in the workplace. The FACS Advisory Committee is designed to rotate membership and includes people from our local businesses and community organizations that represent all of the areas of Family and Consumer Sciences.
4. Student registration for our classes has remained high over the past several years.
5. There is strong collaboration between the middle school, high school and beyond. The secondary FACS teachers work well together to best prepare students as they transition through their education. This collaboration continues with St. Cloud Technical and Community College and the articulation of three high school FACS courses.
6. Students, parents, and community survey response strongly recognized the importance of personal finance skills and specifically expressed support for a required personal finance course taught from the personal and family perspective provided by the FACS department.
7. On a district-wide survey earlier this year, respondents reported that the most important indicator of the high quality of BHM school is our broad curriculum that serves all students. Because FACS is a broad curriculum supporting individuals and families, we do indeed serve all of our students.
8. The same district-wide survey, respondents identified service-learning as characteristic of a good school. Family and Consumer Sciences classes are ideal for providing service-learning opportunities as they fit well with the curriculum.
9. Because our curriculum is focused on preparation for successful and independent

adulthood, we contribute to our districts strong credibility rating. The BHM vocational-technical program scored highly “favorable” on the district survey..

BHM PROGRAM LIMITATIONS OR CHALLENGES

1. As student enrollment increases over the next five years in the middle and high schools and societal issues appear, FACS curriculum will need to keep pace with changing needs of students and families.
2. The 9-week length of classes pose a challenge to teach to all the possible standards to provide in-depth knowledge and learning.
3. No high school FACS classes are currently required for graduation from BHM schools.
4. Technology in the hands of our students is limited. Access to computer labs can be difficult to schedule and is challenging for students to be on the same website at the same time.
5. Limited staffing for the consistently high number of student requests for FACS courses.
6. FACS foods lab at BCMS is outdated and crowded.
7. Newer versions of teaching tools are available and can be expensive.
8. Budget.

NEXT STEPS

Based on trend data, survey feedback, and Advisory Committee discussions the Family and Consumer Sciences teachers in Buffalo-Hanover-Montrose district suggest these considerations:

1. In addition to the current required 7th and 8th grade FACS courses, create a 6th grade FACS course aligned with the elementary STEM curriculum standards. This would provide a comprehensive FACS experience throughout middle school that aligns with the high school FACS classes.
2. Incorporate STEM concepts into FACS classes such as:
 - S**cience = Food Science; Food Safety and Sanitation.
 - T**echnology = Continue incorporating technology into all classes.
 - E**ngineering = Emphasize the conceptual and cognitive thinking involved in constructing a sewing project.
 - M**ath = Foods classes and construction projects.
3. Continue in the Arts Magnet program and incorporate an Arts Magnet focus with STEM standards, which is “**STEAM**” - Science, Technology, Engineering, Art, and Math.

4. Pursue a required Personal Finance course for every graduate.
5. Examine alignment of FACS curriculum between middle and high school and assign standards to courses that ensures a smooth transition for students.
6. Explore development of a comprehensive FACS class in middle school as an introduction to the high school courses.
7. Align human sexuality and nutrition curriculum currently between FACS and Health.
8. Research and identify best practices for Family and Consumer Sciences teaching and learning.
9. Explore options for addressing major health issues.
10. Investigate the National Restaurant Association high school culinary curriculum called "ProStart." This program would allow students to compete in state and national culinary competitions.
11. Investigate incorporating "fiber art" into the Sew Creative course.
12. Investigate the availability of "Advanced Placement" or "College in the Schools" college courses that match with FACS offerings to provide students with state and university college credit.
13. Investigate additional service-learning opportunities for our students.
14. Investigate grant opportunities to assist with purchase of classroom technology for students.
15. Continue to work with high school counselors to schedule FACS classes to ensures availability to students.
16. Continue to ask for feedback from students and parents as a part of student assignments and end-of-term evaluations.

Thanks you for your support of Family and Consumer Sciences in Buffalo-Hanover-Montrose schools.

Amanda Hastings
FACS Educator
BCMS

Julie Mundahl
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BHS and BCMS

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SOURCES:

National Family and Consumer Sciences Standards <http://www.nasafacs.org/process-framework.html>

American Association of Family and Consumer Sciences, Newsletter - Fall, 2013

www.frac.org - Food Research Action Center

Good Morning America Debate, CBS Television Oct. 2, 2013

“Bring Back Home Ec,” Boston Globe Oct. 13, 2013

“Who Says Home Ec. Isn’t a Core Class?” Wall Street Journal, Oct. 1, 2013

“Major Trends in Family and Consumer Sciences,” Family and Consumer Sciences: A Chapter of the Curriculum Handbook (ASCD Curriculum Handbook, A Resource for Curriculum Administrators), by Janet Johnson and Julie Laster, 2001

BACKGROUND INFORMATION

At BCMS our required 7th & 8th grade courses have transitioned from a traditional manufacturing class to an engineering based course which emphasizes the informed design process, with opportunities for problems solving and critical thinking. In our elective offerings we still offer two traditional manufacturing courses.

At the high school all Technology Education (Tech Ed) classes are elective based. All but one of our classes are single term offerings. We choose to do this to give students the most flexibility to fit a Tech Ed class into their schedules. We offer traditional classes such as woodworking and metals to high tech classes such as three dimensional computer aided drafting (3D CAD) and video production. We have been affiliated with St. Cloud State since 2006 offering a College in the Schools class. We have seen change and growth at the high school. In 2005, we opened our new expanded areas... a traditional metals shop, which is also used to teach an auto maintenance class and an all girls auto maintenance class. That same year we also opened our own computer lab, where we teach an Introduction to CAD class along with two 3D CAD classes (one being a mechanical class, the other being an architectural class).

NATIONAL STANDARDS

International Technology Education Association (ITEA) has standards for technology literacy for grades K-12. Our technology education program grades 7-12 address 18 of the 20 benchmarks set by ITEA. The two benchmarks that aren't addressed within our program are the benchmarks of medical and agricultural. Not all benchmarks are fully met but parts are introduced to the students.

STATE AND NATIONAL TRENDS

Current trends that relate to our field...

Project Lead The Way (PLTW): Project Lead The Way is the nation's leading provider of science, technology, engineering, and math (STEM) programs. Through world-class K-12 curriculum, high-quality teacher professional development, and outstanding partnerships, PLTW is helping students develop the skills needed to succeed in the global economy.

Game:it: was developed by teachers for teachers. It is a full 18 week course that offers terrific flexibility for your school. It can be taught as a stand-alone elective, as part of a CTE program (along with our GAME:IT Advanced and Mobile App:IT courses), as a supplement to math or physics classes or even as an after school or summer learning program.

STEM: The central mission of the STEM Education Coalition is to inform federal and state policymakers on the critical role that science, technology, engineering, and mathematics (STEM) education plays in U.S. competitiveness and future economic prosperity

Autodesk Design Academy 2014: Autodesk® Design Academy provides educators with the software and learning resources to prepare secondary school students for college and rewarding careers in architecture, engineering, and design. Featuring Autodesk's widely used 2D and 3D design and engineering software, the suite supports creativity and the teaching of critical thinking and problem-solving skills. The software's design, visualization, and simulation capabilities enable students to easily move between 2D and 3D design environments, and fully experience their creative ideas digitally. With its alignment to the Autodesk® Digital STEAM Workshop, the suite offers the right toolset to engage students in science, technology, engineering, art, and math.

STREAM: Science, Technology, Reading and Writing, Engineering, Art and Math. The goal of STREAM is to increase student achievement in science, reading and writing through the use of science literacy integration and student-centered technology.

BHM PROGRAM STRENGTHS

The Technology Education program in BHM schools has many strengths. We offer a broad based technology education curriculum ranging from traditional to “high tech.” From our results in our parent, community, and student surveys the community as a whole is happy with the job we have done in the past and are happy where we are leading their children today and into tomorrow. As a 7-12 Technology Education department, we are committed to the continuous improvement process and want to strengthen our curriculum to better serve our students tomorrow. Some examples follow...

- Great blend of traditional technologies and “high tech” technologies
- Modern and trending Project Lead the Way curriculum.
- Industry level 3D modeling software.
- Opportunities for problem solving and critical thinking.
- Utilizing the STEM concept with-in class activities/assignments.
- New up-to-date computer lab at the high school
- Most current CAD softwares in the CAD computer lab
- Maintained our FTEs even as graduation requirements have increased
- Students of all future plans have participated in a Tech Ed class
- 100% of surveyed students were satisfied or very satisfied with their tech ed experience
- Students enjoyed the hands-on experience they encountered in Tech Ed classes

BHM PROGRAM LIMITATIONS OR CHALLENGES

As well as we have done as a Technology Education department, we still encounter limitations and challenges in the following areas...

- Difficulty teaching many standards with 9 weeks of class every year.
- Collaboration between High School and Middle School courses
- Technology Education classes are elective, students must be interested in subject area.
- The cost of modern technology equipment and the training needed to operate them.
- At the High School, direct competition for junior and senior students with WTC (Wright Technical Center)
- Perception that Tech Ed classes are “easy or slacker” classes

- People within the school system persuaded students NOT to take Tech ed. classes

NEXT STEPS

As we move forward as a department, we have concentrated our efforts in the following areas to try and improve our program within the district...

- BCMS is exploring options for adding a 6th grade elective to connect with the students with elementary STEM experience, as well as having students doing model building to incorporate some of the traditional aspects that are missing.
- Continue to try to persuade students and the community that Tech Ed. is a vital element to an all-round academic education in the 21st century and beyond
- Check into the paperwork that is required to become a MTEA Technology Education Program of the year
- Starting in the 2014-15 school year, evaluate the success of the AutoDesk Academy in the CAD (Computer Aided Drafting) classes at the high school
- Start pursuing the need to allow more Tech Ed. classes to “fill” the Arts portion of the graduation requirement

The department will continue exploring trends and options in delivery methods and resources that are currently available or will be available in the future. As technology progresses we will do whatever is feasible to adapt our curriculum to meet the demands of our students in an ever changing technological world. This will include elements of new equipment, potential new courses or course modifications, and new teaching strategies.

BACKGROUND INFORMATION

Grade 6 Technology is a required 9 week quarter class that all sixth graders complete in their first year of middle school. The four main targets of the class are that students will be able to Create, Communicate, Critically Think and Collaborate in their current world and to prepare them to be positive digital citizens.

In order to meet those targets, instruction focuses on keyboarding skills, digital citizenship responsibilities, website evaluation and internet research strategies. Students demonstrate learning by producing collaborative and creative projects and showcasing them on a class website.

NATIONAL STANDARDS

The focus of this course is based on the [Standards from ISTE](#) (International Society for Technology in Education).

Student ISTE Standard Headings

1. Creativity and Innovation
2. Communication and Collaboration
3. Research and information fluency
4. Critical thinking, problem solving, and decision making
5. Digital citizenship
6. Technology operations and concepts

STATE AND NATIONAL TRENDS

Link to National [ISTE trends](#)

The trends we observed in our visits to other districts:

Mound Westonka

- *one to one device (Chromebooks) provided to all students, able to take home, incredible amount of instruction occurring in school on the device (online textbooks...)
- *uniform device - consistency

Edina

- * “Bring your own” device in action! District collaboration with Best Buy to provide devices (Chromebooks primarily) to students at a greatly reduced price
- * students are strongly encouraged to bring their own device and the school has devices for those who don’t have their own.
- * large amount of instruction occurring on a wide variety of devices: laptops, ipads, tablets
- *emphasis on “platform neutral” instruction
- *implementing K-12 district wide ePortfolios

BHM PROGRAM STRENGTHS

Strengths:

- * One-to-one Chromebooks in the classroom for daily student use
- * Google Apps allows for consistent student access at school and home, transferable skills for entire school career
- * Two instructors allows for collaboration, consistent instruction and common assessments

Staff, students and parents were surveyed regarding the course.

- *Student Survey: Approximately 85% of students reported confidence in being prepared to use the skills they learned in the course after completing the class (i.e. keyboarding, Google Apps, research strategies, digital citizenship)
- *Parent Survey: 82% of parents reported that their child’s confidence with the use of technology had increased after completing this course
- *Teacher Survey: 83% of sixth grade teachers reported that they observed the students applying what they learned in the course

BHM PROGRAM LIMITATIONS OR CHALLENGES

Limitations:

- * reliable internet service (is being addressed hopefully solved soon :)
- * students come from elementary school with a diverse background in technology instruction/skills
- * quarter class (9 weeks) short time frame

Staff, students and parents were surveyed regarding the course:

- * Student survey: Approximately 50% of students reported feeling confident in being able to troubleshoot technical computer issues
- * Parent survey: 18% of parents reported a lack of familiarity with their child's experience in the course
- * Teacher survey: Teachers reported wishing that the students could all take the course first quarter in order to be prepared to apply computer skills throughout the sixth grade year

NEXT STEPS

Our next steps will be to continue to research national and local trends in technology education. We will continue to update and keep the course relevant to BHM students. Collaboration with middle school teachers will ensure that students are obtaining the digital literacy skills they need for learning.