

Superintendent's Corner

In the arena

DR. JOSEPH M. SAWYER
SUPERINTENDENT

I shared the following remarks with the Shrewsbury High School Class of 2019 at their graduation ceremony on May 30, 2019.

You are making SHS history tonight, as the first class to hold its graduation ceremony here, in the DCU Center arena. I was personally excited when this decision was made, as now I will be able to say that I, too, was onstage here, just like the following partial list of superstars:

Frank Sinatra (who gave the first performance in this arena, originally called the Worcester Centrum, when it opened in September 1982), Paul McCartney, Ringo Starr, Bruce Springsteen, Paul Simon, Madonna, Prince, Elton John, Billy Joel, Bob Dylan, Willie Nelson, Journey, U2, Bon Jovi, Aerosmith, Kiss, Foo Fighters, Kenny Chesney, Snoop Dogg, Britney Spears, New Kids on the Block, Guns N' Roses, Garth Brooks – and, in case you students haven't heard of any of those people, also: Ariana Grande, Maroon 5, Carrie Underwood, and, Panic! At the Disco.

That's a pretty talented group to be part of, and Graduates, after tonight, you, too, will be able to count yourselves among the greats who have graced the stage at the DCU Center! So, at least we've got that going for us...

Having grown up locally in my hometown of Clinton, I actually attended my first ever concert right here: Phil Collins during his "No Jacket Required" tour on May 12, 1985, 34 years ago when I was a junior in high school. Of course, now that I've

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“ No other investment yields as great a return as the investment in education. An educated workforce is the foundation of every community and the future of every economy. - Brad Henry ”

Students create positive change within their communities



Students are pictured on a field trip to Community Harvest Project in Grafton, MA, on May 2, 2019.

KELLY LAWLOR
ENGLISH TEACHER,
SHREWSBURY HIGH SCHOOL

In Mrs. Lawlor's English classes, 10th grade students endeavored to make a positive impact within their communities. We started the year with one ques-

tion: If you could change one thing about the world around you, what would it be? Students started off having broad, passionate conversations about social issues they cared about, such as: hunger, homelessness, global warming, climate change, animal abuse, and children's cancer, to name a few. Students felt very pow-

erless in terms of the impact they thought they could have on these global issues, but that would all change.

The idea for the "Changemaker Project" originated during a dystopian literature unit in our English class. We examined

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School Department budget: a new approach

MS. SANDRA FRYC
SCHOOL COMMITTEE CHAIR

The School Department's Fiscal Year 2020 budget process involved a shift in the dynamic and methodology used for past budgets.

The first component of the FY20 Budget was a proposed "Status Quo" budget recommendation that illustrated the financial resources necessary to bring the existing educational program and staff forward. FY20 budget drivers included existing labor contracts and non-union staff compensation, increased transportation costs, special education tuition rate increases per state regulatory authority, as well as supplies. However, the "status quo" budget was not sufficient to meet the

expectations the community has for our schools.

The second component of the budget process represents recommendations for targeted investments directly aligned with and vital to achieving the district's five-year strategic priorities and goals that were adopted in December 2017. The four strategic priorities are: Space and Resources to Support Effective Learning; Learning Environments Where Everyone's Success Matters; Enhanced Well-Being for All; and Connected Learning for a Complex World. The five-year plan creates a roadmap for the district to follow in order to achieve our educational vision and priorities in a manner that best supports our students and meets community expectations for excellent public education services and high levels of student success.

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publicly revealed that fact, I guess I should no longer use it for one of the security questions to protect my online accounts – such as the snow day announcement codes. I also can't say that my fondness for Phil Collins's music has entirely stood the test of time, nor do I still listen much to the two other bands I saw here during that period of my life: Foreigner and Van Halen (and that was the Sammy Hagar version, in case the people my age are wondering).

Over time, the kinds of concerts that I have attended here have evolved. For example, a decade or so ago I was able to score tickets to see... The Wiggles! I saw them with my oldest daughter, who's now a junior and who is here tonight somewhere – and I bet some of you were here at that concert with your parents, too (I can say there was a bit of a different vibe in the Wiggles crowd than with Van Halen). Because I married a Texan who loves country music, I've seen the Dixie Chicks and Sugarland here. And, in a little more than a week, I'll be back here to see Pentatonix, as my daughters and wife love a cappella singing. Not a musical evolution that I would have predicted for myself during my high school years, for sure. Of course, I also never thought I would actually be "on stage" here, but here I am – and, given my lack of musical aptitude, it is a good thing for all that I'm not singing.

But, as Shakespeare reminds us, "All the world's a stage," and all of you will someday be "on stage," in all types of actual or metaphorical arenas:

- performing an artistic part – or surgery;
- carrying out a military mission – or a business plan;
- making a political speech – or a critical repair;
- writing a book – or computer code;
- creating art – or a meal;
- teaching a class – or a lesson to your own children.

It does not matter how small or large *your* arena may be, but it will matter whether you choose to take the risk to be vulnerable and get onto *your* stage so that you may share *your* talents. You need to be vulnerable to do this, because there is always the risk of failure. But there is more risk if you don't take those chances. The researcher and author Brené Brown asserts, "When we spend our lives waiting until we're perfect or bulletproof before we walk into the arena, we ultimately sacrifice relationships and opportunities that may not be recoverable, we squander our precious time, and we turn our backs on our gifts, those unique contributions that only we can

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Recognizing 2019 retirees

BARBARA MALONE
DIRECTOR OF
HUMAN RESOURCES

Nineteen staff are ending their education careers with a well-deserved retirement. In combination, they have served the students of Shrewsbury for 364 years. This total represents an average of 19.16 years of service in Shrewsbury and does not include prior educational experience in other districts. Each of these talented staff members is recognized for their commitment and dedication to the children of Shrewsbury. Listed below are the names, positions, schools, and years of service to Shrewsbury. We wish them a healthy, happy, and fun retirement.

Teachers/Professional Staff:

Karen Binder has served 15 years as an educator in Shrewsbury. She is retiring as a Seventh Grade Social Studies Teacher from Oak Middle School.

Patricia Crosson has served 31 years as an educator with 13 of those years here in Shrewsbury. She is retiring as a Family and Consumer Science Teacher from Shrewsbury High School.

Deborah Gouley has served 39 years as an educator in Shrewsbury. She is retiring as a Fifth Grade Math and Science Teacher from Sherwood Middle School.

Susan Harrington has served 35 years as an educator with 29 of those years here in Shrewsbury. She is retiring as a First Grade

Teacher from Floral Street School.

Elizabeth Hebert has served 22 years as an educator with 18 of those years here in Shrewsbury. She is retiring as a Special Education Teacher from Calvin Coolidge School.

Rita Innamorati has served 25 years as an educator in Shrewsbury. She is retiring as a Third Grade Teacher from Calvin Coolidge School.

Mary Kwiatkowski has served 39 years as an educator, with 19 of those years here in Shrewsbury. She is retiring as a Sixth Grade Math and Science Teacher from Sherwood Middle School.

Catherine LaRoche has served 34 years as an educator, with 10 of those years here in Shrewsbury. She is retiring as the Director of High School Special Education from Shrewsbury High School.

Derric Lowery has served 20 years as an educator, with 16 of those years here in Shrewsbury. He is retiring as a Science & Engineering Teacher from Shrewsbury High School.

Deborah Martel has served 21 years as an educator in Shrewsbury. She is retiring as a Second Grade Teacher from Floral Street School.

Elizabeth McGandy has served 32 years as an educator, with 12 of those years here in Shrewsbury. She is retiring as an English Language Education Teacher from Sherwood Middle School.

Beth Neiman has served 40 years in psychology with 13 of those years here in Shrewsbury. She is retiring as a School Psychologist from Shrewsbury High School.

Barbara O'Connor has served 19 years as an educator in Shrewsbury. She is retiring as a Science & Engineering Teacher from Shrewsbury High School.

Jose Schroen has served 20 years as an educator in Shrewsbury. She is retiring as a Physics and Mathematics Teacher from Shrewsbury High School.

Deborah Vigneaux has served 26 years as an educator with 9 of those years here in Shrewsbury. She is retiring as a Spanish Teacher from Shrewsbury High School.

Camille Viscomi has served 30 years as an educator with 20 of those years here in Shrewsbury. She is retiring as a First Grade Teacher from the Walter J. Patton School.

Paraprofessionals:

Hannah Mansfield has served 13 years in Shrewsbury. She is retiring as a Child Specific Aide from Sherwood Middle School.

Other Roles:

Diane Abbott has served 25 years in Shrewsbury. She is retiring as the Registrar for the district.

Tim Callahan has served 28 years in Shrewsbury. He retired in December 2018 as the Courier/Equipment & Supply Coordinator for the district.

Shrewsbury Education Foundation: providing opportunities & recognition

CHRISTINE JUETTEN
& MARY AICARDI
SEF CO-PRESIDENTS

The core mission of the Shrewsbury Education Foundation (SEF) is to raise money to fund grants that puts resources and programs directly into the classroom. Each year SEF receives grant applications from Shrewsbury Public School educators seeking funding for unique learning experiences and funding that will directly benefit students. Selected grants allow educators to expand educational experiences for students that might not be possible due to lack of funding from the School Department's operating budget.

Each year the SEF organization celebrates the recipients of the John P. Collins Awards for Excellence. This award is named for former Superintendent John P. Collins, PhD, who served for 16 years in Shrewsbury (1978-1994). Dr. Collins, who died this year, exemplified the highest standards of professionalism and a commitment to lifelong learning. The Collins award honors the exemplary efforts of those whose work brings to life the mission of the Shrewsbury Public Schools: *to provide students with the skills and knowledge for the 21st century, an appreciation of our democratic tradition and the desire to continue to learn throughout life.*

At the annual SEF Awards and

Fundraising Dinner, the organization recognizes its Community Service Award, which is granted to a town leader who goes above and beyond in delivering outstanding services to the community and to the Shrewsbury Public Schools. Past Community Service Award winners include: State Representative Hannah Kane; Mr. Ted Coghlin; Mr. Mark Murray; Mr. Thomas Kennedy; Dr. Joseph Sawyer; Ms. Beth Casavant; Mr. Daniel Morgado; the Shrewsbury High School Community Service Program; and Jim and Paula Buonomo.

In order to promote community service and build tomorrow's

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Be different, be driven, & evolve

MATTHEW BROWN
SOCIAL SCIENCES TEACHER,
SHREWSBURY HIGH SCHOOL

The following are remarks given by Mr. Brown, Social Sciences Teacher, at the Shrewsbury High School Class of 2019 Commemoration on May 28, 2019, edited for publication.

It is difficult to adequately express how humbled and grateful I am for having the opportunity to speak to you tonight. It has been an honor and pleasure to get to know many of you over the last four years.

Over the past few weeks I have spent a significant amount of time thinking about what I would like to share with you tonight to honor the amazing people you are and the amazing work you have done over your time at Shrewsbury High School and what words of wisdom I could impart as you begin to make your mark outside of Shrewsbury. As the challenge of encapsulating my genuine appreciation for this class into 10 minutes approached, I began to really question what I could possibly say or offer that would be of lasting value. I am certainly not the most gifted public speaker and no one has ever described me as dynamic. And then it hit me... the most important and valuable gift that I can give to the Class of 2019 is an attempt to answer the question that has been vexing my students and likely every student that has walked down the B300's hallway: Why doesn't Mr. Brown smile?

Before really exploring this issue in all of its complexity, there are a few basic student hypotheses I would like to address. I would like to begin by reassuring everyone that I DO possess the muscular capacity to produce a smile. Some have suggested the smiling deficiency could be because I do not like to show my teeth - and while my teeth are not perfect, they do not cause me embarrassment. Also, important to note, I am not a fundamentally unhappy person unless someone references Nicholas Cage or LeBron James. No, none of these explanations are accurate. The real reason that I have avoided smiling in class all of these years is because I have been trying to teach you three larger life lessons. I would like to share these lessons with you in the context of the three responses I use most frequently in addressing this issue. So here we go...

It is September: The halls of

Shrewsbury High are predictably busy with the rush of students emerging from their summer hibernation. There is a palpable enthusiasm that is only dampened by the humidity that lingers throughout the building, but seems to find its uncomfortable resting place on the third floor. It only takes a couple of weeks for the first instance to occur. A student raises his hand and asks, "Mr. Brown, why don't you EVER smile?" I quickly reassure the student that "EVER" is a bit of an extreme characterization, but I do often offer an explanation. I will usually refer to the timeless adage that it takes more muscles to frown than to smile (Whether this is actually myth or not - it is what I tell my students.) Confused and skeptical looks usually appear across the classroom so I continue to explain that by using more muscles to avoid smiling, I am, in effect, working-out on a near-constant basis while they are seemingly taking the easy way out by smiling so frequently. This response highlights my first piece of advice: BE DIFFERENT. Whether you find yourself in an academic setting or not, one of the most important things you can do is push yourself to take the more rigorous and ambitious path. While there will inevitably be more obstacles along the way and many reasons not to choose this direction - it is likely the one that will lead to the most rewarding outcome. This is not because it is necessarily important to be a contrarian or to draw attention to yourself, but rather it is crucial to think and act differently because this is the only way that substantive change has ever been created in the world. Being willing to work harder and to take courageous stands against injustice have a transformative impact on the world, and on you. It is my hope that the uniqueness of each of you will work to defy labels and stereotypes and make a positive difference in the world. Being different to bring about positive outcomes in yourself and the community is tremendously hard work, but it is important work and it is work that each and every one of you is capable of. So BE DIFFERENT.

It is now nearing the end December: by this time, the seniors are either beginning to relish the accumulation of snow days that they do not need to make up, or are lamenting their terrible misfortune at the hands of Mother Nature. Many students are excited about the upcoming December break and as they attempt to find out what others' plans are for the time off, many remained equally determined to find out where my smile has

gone. In the middle of a riveting discussion on the implications of Social Darwinism on European Imperialism in the context of China's Open Door Policy, one of the freshmen raises a hand and asks, "Mr. Brown, why don't you smile?" As the school year progresses, my answer regarding the proportion of muscles used for smiling and frowning seemed to become insufficient to quell the tide of questions. Undeterred, I moved on to my second most commonly used response: I calmly, and hopefully persuasively, argued that I would be doing the students a significant disservice if I fed them a constant diet of smiles. As the perplexed looks began dotting the classroom, I continued by explaining that student engagement, enjoyment and learning should not be dependent on the number of smiles they receive during a class period. Students, I argued, needed to be able to motivate themselves to work hard whether a teacher smiled incessantly or infrequently. In my response, the larger point I was hoping to make and share with you tonight is: BE DRIVEN. What I mean is that every one of you needs to maintain, cultivate and preserve that inner spark that motivates you to reach your goals. High school, college, the workforce, the military - all of these places are filled with ways to extrinsically motivate, whether in the form of money or various accolades. None of those external motivators will ever be as powerful or rewarding as those that come from within. In the classroom, I have seen countless students appreciate an "A" or praise for a job well-done, but that never seems to compare to those times when I have seen students challenge themselves to take a risk or try to accomplish a difficult task, and experience the mix of surprise and pride that fills them when they accomplish that long-elusive goal. These types of prideful moments do not stop once you leave the halls of SHS, and they will inevitably occur when you follow those passions that come from within. So BE DRIVEN.

It is now March: By this time of the year, seniors are using every ounce of their beings to get to the finish-line that is May. The rest of the student body is tirelessly hoping for a surprise Monday Holiday to break up the lengthy monotonous month. By March, my students have solidified themselves into one of two camps. Either they have resigned themselves to the fact that no joke is funny enough to make me smile in class OR they continue to have that determi-

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Budget

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The School Committee recognized that funding is not available in the FY20 budget to meet all of the identified investment needs. However, some level of funding would be needed to advance the district's important educational priorities and goals. It was clear during the budget process that the School Department would need to look beyond the operating budget and seek other sources of funding.

Another important piece of the FY20 budget process included engaging the Collins Center for Public Management at UMass-Boston to do an organizational study of the district's Central Office positions and functions. Members of the Collins Center project team interviewed district administrators, support staff, principals, and School Committee members. They also gathered information regarding comparable school districts' central office and personnel functions.

The UMass Collins Center report provided the School Department with an independent assessment of, and recommendations for, an enhanced central office organizational structure that will properly support the district's mission. The Shrewsbury Central Office Organizational Study report is available on the School Department's website.

The School Committee recognizes the burden fees and tuition costs place on families. However, fees and tuition are a critical funding source for our school district. The School Committee reviewed current school fees and tuitions and voted to make incremental increases to transportation fees and athletic fees, as well as preschool tuition in order to account for inflationary costs. These changes are expected to generate an estimated increase of \$46,000 in revenue from those sources.

There is one area where the School Committee is working to eliminate, over time, a significant tuition burden on families that is far out of step with the times. As discussed at multiple school committee meetings, public hearings, and at last year's Town Meeting, the School Committee has established a goal of providing universal access to full-day, tuition-free kindergarten when space becomes available due to the new Beal School building project. The committee strongly supports this goal and is taking the approach of stepping down the tuition rate over time, which the committee believes represents a fiscally prudent approach to responsibly weaning the district from the funding coming from full-day kindergarten tuition. This planned approach to incrementally reducing this tuition avoids the need to absorb the shift to the appropriated budget all at one time when the new Beal School opens in 2021. The tuition is being reduced by 1/3 next year, from \$3,600 to \$2,400 annually, and that will decrease estimated tuition revenue by approximately \$225,000.

School Department staff also actively sought private grants and sponsorships to supplement the school district's bud-

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make.”

Brown uses the metaphor of the “arena” because she was inspired by Theodore Roosevelt’s speech, known as *The Man in the Arena*, in which he declared that it is not those who sit on the sidelines and criticize others, but only those who take the risks and make the efforts to use their talents for important reasons, who are true successes. Roosevelt famously said:

It is not the critic who counts; not the man who points out how the strong man stumbles, or where the doer of deeds could have done them better.

The credit belongs to the man who is actually in the arena, whose face is marred by dust and sweat and blood; who strives valiantly; who errs, who comes short again and again, because there is no effort without error and shortcoming;

but who does actually strive to do the deeds; who knows great enthusiasms, the great devotions; who spends himself in a worthy cause;

who at the best knows in the end the triumph of high achievement, and who at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who neither know victory nor defeat.

So, tonight in *this* arena, as you not only cross this physical stage, but also into a new stage of your lives, I ask that you consider Brown’s and Roosevelt’s challenge: that you dare to live lives where you strive to be your best selves in your own arenas, whatever they may be – and to share your talents, however imperfectly, in service to a greater good.

On behalf of everyone in the Shrewsbury Public Schools, congratulations and best wishes.

Shrewsbury School Journal

The non-profit Shrewsbury School Journal is published three times a year and reaches every household in the diverse and growing town of Shrewsbury. It is published by the central office of the Shrewsbury Public Schools with the help and expertise of many individuals. The mission of the Shrewsbury School Journal is to provide an accurate source of information about our school system and the town in which we live. We hope to foster a community of continuous learners.

Dr. Joseph M. Sawyer
Superintendent

Elizabeth McCollum
Project Coordinator

Cristina Luther
Designer

Introducing the new Oak Middle School Design Lab

MICHELLE BISCOTTI &
KATHLEEN KEOHANE
COORDINATORS OF
DEVELOPMENT AND
VOLUNTEER ACTIVITIES

The old “tech ed” space has been transformed!

During the summer of 2018, Mr. Jeremy Mularella was asked to fill the role of the next Technology Education, or “tech ed” teacher, after the retirement of longtime teacher, Mr. Allen Beer. Mr. Mularella, a former science teacher on the 8 Gold team at Oak Middle School, envisioned “a school makerspace that is eventually open to all students and staff (not just the students in [the] class) to tinker, design, and create cool stuff.” He also recognized the shift in how engineering is taught in schools, from designing the same product (like a bridge or egg drop basket) to teams working creatively and critically through the design process. However, the current space lacked the adequate tools and supplies to create such an environment, so he appealed to the School Department for funding. Because the Shrewsbury Public Schools Colonial Fund was created to “invest in the development of new ideas and innovation in our schools,” Colonial Fund dollars were used to purchase a new vinyl cutter, MakeDo construction tools, a portable storage system or “makerspace on wheels,” and seven Ryze Tech Tello mini drones (plus batteries and charging hub).



Students (left to right) Anya Pyro and Vira Riabova are pictured with the first student-designed clock created on the laser cutter in the new Oak Middle School Design Lab.

So, what is this equipment being used for? The vinyl cutter “will help students with the 2D design of their new products. Students can etch and cut a variety of materials, like different fabrics, leather, and paper products, depending on the new product they are trying to create.” The MakeDo construction tools help cut and shape materials such as cardboard, used in the prototype phase of creating a new product. The portable storage system helps keep small tools organized, and is a



Student Julia Okuda is shown designing a drone frame using Tinkercad in the Oak Middle School Design Lab.

“makerspace on wheels” for the school. “Teachers can sign out the storage system and use the materials and tools it contains for projects they are doing in class.”

And the drones – aren’t they just toys? No! Today, these unmanned aerial robotic devices (UAVs) are tackling everything from disease control to vacuuming up ocean waste to delivering pizza, and more. Increasingly, drones are being called upon to go where a human cannot, like in search and rescue efforts and providing a bird’s eye view for sporting events, real estate and agriculture. Drone technology has significant potential to impact a growing number of industries in the coming years and Mr. Mularella’s class gives students a short introduction on how drones work and the potential for using them in their daily lives. In the new Design Lab, students program their drone to complete an indoor obstacle course, using block coding. Students also learn the fundamentals of flight and how Newton’s Laws can be applied. (Was learning this much fun when we were kids??)

At the beginning of the school year, Mr. Mularella’s vision was “to expose students to new developing technology such as coding and 2D and 3D digital manufacturing using tools like the vinyl cutters, laser cutters, and 3D printers.” With the existing equipment, and even the new purchases, he was not quite able to accomplish his goals. Mr. Mularella needed additional machinery and engineering bits that he thought would be necessary for his 7th and 8th grade students to be challenged and engaged in his classroom. With

a clear vision for the potential of the new Design Lab, a fundraiser was specifically created to help purchase the new equipment.

Last fall, we were fortunate to have the generosity of the Shrewsbury Public Schools Foundation (also known as “The Garden Party”) who challenged us to raise \$6,500 to match their own \$6,500 donation, which could be given to the new Design Lab. Within a few weeks, we had raised the full \$15,000 that was requested and Mr. Mularella was able to purchase a laser cutter, two 3D printers with supplies, LittleBits Pro Library of engineering parts, invention kits and power drills.

Once the new equipment was ordered and installed, the sky was the limit as to what the new Design Lab could offer to its students and to the broader school community. Teachers could bring their classes down to use the equipment, or check out tools to be used in their own classrooms. Some students designed wooden clocks with LightBurn software and had them etched out with the new laser cutter. Other students created iPhone cases using 3D modeling software and printed them out on 3D printers. Mr. Mularella found patterns for drone parts on the internet and printed them on the 3D printer. The parts were then snapped together, a battery was added and they were ready to be flown!

Such cool ideas needed to be shared, and because none of this would have been possible without the Colonial Fund donors, we invited our donors to

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The Careers Research Project

LISA DALY
MIDDLE SCHOOL
ENGLISH LANGUAGE ARTS
CURRICULUM COORDINATOR

I learned about somebody who has their own business. I got to learn about the struggles of being her own boss and not always having a team. - Kiira Maloney, 7 Red Team

It's different when you get to talk to someone and ask them questions about what you want to know. You really get to know how it's different from what you read about. - Xi Huang Zou, 7 Red Team

On Thursday, May 9th, Oak Middle School welcomed over 30 professionals from across the community to speak with 300 seventh-grade students about their jobs. They represented 32 different career fields: from FBI agents, to biomedical engineers, to artists, to food truck owners. It was *Career Day* for students on 7 Gold, Red, and Blue, which was one part of their three-week *Careers Research Project*. Seventh-grade English Language Arts teachers Sinead Meaney, Gabriella Beliveau, and Karley Newton worked together on the project this year, creating the largest Career Day event yet. The teachers cited two elements of the research project that made it so engaging for students: choice, and Career Day. Career Day provided students with the opportunity to get information from a primary source - adults who are in the profession they are interested in pursuing.

The project embeds grade-level research skills, and relates to the district's strategic priority, *Connected learning for a complex world*, and specifically to the district goals *to integrate project-based learning experiences*, and *to provide opportunities that help students develop independence after graduation*, including exposure to career choices.

Students began their research with exploration, where they considered what kind of career fields they would be interested in pursuing. As a part of their exploration, students used a technology-based program called *Career Cruising*, which takes input about a student's interests, strengths, and preferences, and suggests a list of careers that might be appealing for them. Once a career field was chosen, students researched what a typical day in this field might look like, what kind of training or education is necessary, and what kind of salary they might earn.

Students consulted a variety of sources, but noted that *Career Day* was the most valuable part of the research process for them. Riley Flynn, a student from 7 Gold who is interested in a career in veterinary medicine, said, "I heard real life stories, like about animal emergencies as a part of the job." Lily Hobbs, also from 7 Gold, who is interested in carpentry, explained, "I learned that apprenticeship is really important ... to learn from somebody's guidance." After they gathered information on their career, all students wrote a report on their findings, which required them to synthesize their information and organize it in a logical way.

As an added level of authenticity, students on the 7 Gold team took the process one step further and participated in an *Interview Day*, which provided them with an opportunity to use their understanding in a real-world context - a job interview. Students participated in a group inter-

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Professionals from a variety of career fields are shown speaking about their jobs with seventh-grade students at Career Day on May 9th.

Positive change

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the community within the novel *Unwind* by Neil Shusterman. We saw the protagonist, Connor Lassiter, creating much needed change within his own society, so we began brainstorming where we could also make a positive impact. We continued the year looking at social justice with the reading of *To Kill A Mockingbird* by Harper Lee examining racial inequality. Then, we went into more depth learning the story of a young girl surviving war and genocide in Cambodia in the memoir *First They Killed My Father* by Loung Ung. These stories of struggle and survival shaped our view of the world around us and increased our empathy for others within it.

This integrated, project-based learning experience required students to create complex, high-quality work for an authentic audience, meeting an important District Strategic Goal of "con-

nected learning in a complex world." Students were tasked to utilize their critical thinking, communication, creativity, and collaboration skills in order to help make a positive impact within their community. After choosing a focus topic, students researched the problem and made observations about the impact it has on our local community. Then, students brainstormed ways to solve the problem in collaboration with their peers. Next, students reached out to experts, school administrators, other school clubs, and community partners. In the end, students were able to impact their communities in a myriad of ways from raising awareness with a social justice campaign, volunteering in the community to reduce a problem, or fundraising to donate supplies for their cause.

In order to enhance the learning experience for students, I collaborated with Denise Satterfield, Shrewsbury High School (SHS) math teacher and coordi-

nator for the community service learning advisory board, and Emily Bredberg, SHS library media specialist. We worked together to initiate two different learning opportunities. The first was an in-school field trip where we invited experts from various community organizations to come to our school in order to partner with our students. Each expert worked one on one with groups of students to help improve their understanding of their topic and brainstorm ways to enhance their own projects. The second learning experience for students was an out-of-school field trip to The Community Harvest Project in North Grafton, Massachusetts, where students volunteered their time to plant vegetables that will eventually be harvested and donated to the Worcester County Food Bank.

We are beyond thankful for these community partnerships and the educational opportunities they

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Budget

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get. Grants and sponsorship funds support the district and its educational vision in ways that would not be possible within the appropriated budget.

This year the district was fortunate to receive several competitive grants:

- A \$50,000 grant through the Executive Office of Education, Mass STEM Hub, and Project Lead the Way for startup costs for a biomedical science class at Shrewsbury High School, as well as an additional \$20,000 for computer science coursework
- Two grants related to mental health that will address key strategic priorities in the coming years are:

- A \$1 million grant which will be paid at the rate of \$100,000 per year over ten years through the Department of Public Health. These funds will be primarily focused on providing mental and behavioral health counseling at Sherwood Middle School

- A \$100,000 grant which will be paid at the rate of \$10,000 this year and \$90,000 next year from the MA Department of Elementary and Secondary Education which will be primarily focused on providing mental and behavioral health counseling at the elementary level

- The district has entered into a five-year partnership with Shrewsbury Federal Credit Union to sponsor the Colonial Connections Program that will align with the district's strategic priority and goals around "Connected Learning for a Complex World." This sponsorship includes \$400,000 of funding that will support the purchase of a van to provide transportation for students to access learning experiences outside of the school; funds for various activities, speakers, and/or materials that support career awareness and "real world" learning; and the initial funding for an Assistant Superintendent for Community Partnerships & Well-Being.

The manner and complexity of providing educational services to meet the varying needs of today's students means that our school district must periodically assess its educational practices and organizational structure. The new Assistant Superintendent for Community Partnerships & Well-Being position was identified as a needed additional leadership role at the district level in order to assist with oversight of important district strategic goals, with a focus on community partnerships, social-emotional learning, resource development, and the general well-being of students and staff. This position will also assume some of the current direct reports to the Superintendent, which was one of the key recommendations in the Collins Center organizational study report. The investment in district-level administrative leadership was fully vetted by the School Committee during the budget process including consideration of the need for the position, affordability and sustainability.

At the annual Town Meeting held on May 20, 2018, an FY20 School De-

CONTINUED, see page 7

Foundation

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leaders, SEF created the *Shrewsbury Education Foundation Scholarship* that provides a one-time award of \$1,000 to a graduating Shrewsbury High School senior with a strong community service background who participated in at least 200 hours of volunteer work during their four years in high school. This year’s scholarship winner was Nicole Erickson.

As the SEF organization looks to the future, it plans to create a new competitive grant category that will provide funding for school-wide initiatives which align with the Shrewsbury School District’s strategic goals and priorities that will benefit all students.

SEF is an all-volunteer organization that raises money to fund grants which put resources and programs directly into the classroom. We are proud to partner with the Shrewsbury Public Schools and to provide funding for engaging and enriching programs to support students.

If you would like to learn more about SEF, please review our website at: SEFgrants.org

Oak Design Lab

CONTINUED from page 4

see and experience firsthand the excitement and enthusiasm they had generated with their donations. On May 31st, donors, parents, teachers, School Committee members and Shrewsbury Public School staff all came to experience what the students get to experience every day in class and be “engineer for a day”. Tasks like those given to Design Lab students were set out for donors and attendees to try on their own. The laser cutter etched designs, the 3D printers printed out drone frames, handmade drones were flown outside and attendees even became engineers as they created circuits to turn on a light or make a buzzer, using the LittleBits Pro library of engineering parts.

As one parent told us, “Having been an Engineer for 35 years I could not have been more impressed with what we saw today. The staff and students not only gave us the tour but allowed us to try the different tasks laid out on tables. I was also given the opportunity to fly a drone.”

To see more of the fun activities held at the Design Lab Open House, please watch a short video created by Liz Poplawski from Shrewsbury Media Connection, <https://youtu.be/JaFdJKi-jBIk>. For more photos of the exciting projects that the Design Lab students are working on, follow their facebook page <https://www.facebook.com/oms-designlab/> or their Twitter account, @omsdesignlab.

The Colonial Fund relies on contributions from our parents and our community to continue to fund innovative programs like the new Design Lab. To donate, please go to <https://schools.shrewsburyma.gov/future/donate-now>. Please follow the Colonial Fund on twitter at @SPSInnovates and on facebook at <https://www.facebook.com/SP-SColonialFund/>. Thank you for your support!

Positive change

CONTINUED from page 5

have afforded our students. We also could not have been this successful in reaching our goals if it weren’t for the grant we received at the start of the year thanks to the Shrewsbury Education Foundation. We hope that the impact of this service learning project on our students and the greater school community is far-reaching and long-lasting.

Here is the overall breakdown of what students were able to accomplish over the course of this school year:

- Students planted a total number of 2,792 plants consisting of collard greens, kale, leek, and lettuce plants at the Community Harvest Project Farm which will produce approximately 18,064 total food servings for families within Worcester County.
- Students donated 12 backpacks filled with school supplies to two incredible organizations: School One Wheels and Kylee’s Kare Kits for Kidz. The total donation came to an estimated value of \$457.60.

- Students also sold bracelets earning \$150.00 in proceeds to donate to the Worcester Animal Rescue League.
- Students put 20 craft kits together to donate to the pediatric department of UMass Memorial Children’s Medical Center.
- Students participated in town clean up day on April 6th.
- Students worked with lawmakers, asking them to pass science-based and equitable climate policy for #YouthLobbyDay with Our Climate. They also wrote letters to legislators and painted tiles for a larger mural creation.
- Students walked for Lowell General Hospital Team Walk for Cancer Care, Walk MS Worcester, and The Walk for Hunger.
- Students created curriculum and curated content around LGBTQ education.
- Students raised awareness and provided resources to deal with natural disasters.
- Students created a library display on inclusion to inform on the refugee and immigrant crisis.

These selected self-reflection quotes from students about the “Changemaker Project” sum up the impact of their learning:

- “It is important to do work other than just writing essays and reading books and it has been a great opportunity to give back to my community.”
- “The changemaker project teaches how to get involved and what you can do to help make a difference.”
- “It is a great way to give back to the community and explore the different problems in society and solutions to them.”
- “I think students should continue doing this in the future because it provides students the opportunity to learn valuable lessons about the importance of helping others.”
- “It is a way to benefit the community and no harm can be done by trying to make a change for the better!”
- “I think students should continue working on the Changemaker project next year, to create positive change, and to have the experience of working on a long-term project. This project is valuable for time management, project-making skills, and group work.”

Be different

CONTINUED from page 3

nation to uncover the mystery. Those who fit into this latter group, I notice, begin to focus on my lanyard and school ID. Then, inevitably, someone asks if I am smiling on my school ID photo. While the fear of my cover being blown was initially a concern, the frequency of the inquiry has helped that fade. In my response, I explain that after multiple tries to smile, the photographers simply gave up and offered to photoshop my smile for the ID picture. While I may wish the photoshop portion of my response to be true; unfortunately it is not, but what is fundamentally true here is that for my students, that photo ID is not authentically who I am. So this brings us to the final lesson: EVOLVE. I do not mean this in a strictly academic way, but rather in the sense that we must not remain static. As much as we would all like to think, the pictures we take never sufficiently capture who we are - they capture a part of us, but never our entirety. We can never be wholly defined by the images we post on Instagram accounts (Finstas or Rinstas - I realize that these are probably outdated terms by now but oh well). It is only when we start to piece together all of these pictures of our life that we get a greater sense of who we truly are. Just like the random smile

I was able to produce for the photographers on picture day, your high school experience is only one of those pictures and one that will not define you going forward. You not only have an opportunity to redefine yourself, but I think you have an obligation to defy expectations and add layers to your identity for the rest of your lives. For some, you have spent the last four years reaching for that coveted college acceptance. And for others, you may have been simply trying to endure and persevere to get to this Thursday. Regardless of what approach got you to this point, you now must begin the necessary work of defining yourself and resisting the onslaught of attempts by outside forces to define you. So EVOLVE.

By now I am sure some of you think that I have spent the last 10 minutes explaining how I spend my time lying to students about facial expressions, but I hope the larger point is clear. Each and every one of us in this room tonight is so much more complex than the clothes we wear on our bodies or the feelings we display on our faces. While you will inevitably face obstacles in the next stage of your life, please fight with every ounce of your being to not let them distract you from the very important work of DEFINING SUCCESS on your own terms. Identifying what we value in life is some-

thing that requires us to take the risk to Be Different, to remain Driven by that inner spark, and allow ourselves to grow, mature and Evolve. Throughout life there will always be people and systems who will try to quantify your life and tell you what success is. Whether it is translating your learning into numbers, your success into dollars, or your happiness into square footage (or number of smiles per hour), none of these can adequately capture those important moments of which we are most proud. No number can represent that feeling when you figured out a difficult concept, when you received that college acceptance letter, or the pride you will feel when you walk across the stage to accept your diploma. I implore each and everyone of you to spend the next phase of your life chasing those moments that cannot be measured and those that fit YOUR definition of success.

So while I may not have given any of you the answer you were looking for regarding my smile, I want you to truly know that thinking about how far you will go and how many great things you will accomplish in this lifetime - That, that is what makes me smile!

Thank you and best of luck Class of 2019!

Teaching with trout

JOHN BROCKI &
ZACHARY TASHJIAN
*SCIENCE & ENGINEERING
TEACHERS*
DAVE HRUSKOCI
*DIRECTOR OF SCIENCE
& ENGINEERING*
*WITH CONTRIBUTIONS FROM
CAROLYN LYNCH
& NORA CRAFT
STUDENTS*
SHREWSBURY HIGH SCHOOL

On a cold, rainy, first day of April Vacation, a handful of Shrewsbury High School (SHS) students woke early, not to race down to the warm Florida beaches, but to gather on a quiet, unassuming edge of the Assabet River. A curious fisherman waded towards the students, unaware that he was witnessing the culmination of a seven-month scientific endeavor.

This year was SHS’s first participation in the “Teaching with Trout” program offered by MassWildlife. The program is designed to connect students to their local environment, teach about water quality and health, and introduce conservation concepts. Students are asked to raise trout from eggs to fingerlings and then release them into State-approved waterways.

Back in October, Mr. Brocki, advisor to the Marine Biology club, received the necessary training and equipment to raise the trout. Marine Biology member and senior Carolyn Lynch was excited, but nervous, “Before this experience, the only fish I had ever raised was a Betta. As this was such a big deal for the Marine Biology Club, I wanted to do everything I could to help.”

By December, the equipment was in place and the state hatchery delivered approximately 200 brook trout eggs to SHS, each about the size of the “o” in this text. Extreme care was required in the early stages as these brook trout are sentinel species, they serve as an indicator for ecosystem health due to their quite

narrow tolerance limits for water quality. As such, these fish required a pristine tank with strict temperature and nutrient levels. To mimic their natural habitat, students had to set the tank’s temperature to 42°F over school breaks (thereby slowing metabolism and growth) and 54°F otherwise. Students were also responsible for monitoring nutrient loads (ammonia, nitrites, and nitrates) in the tank and performing semi-weekly water changes while introducing bacterial cultures to mimic the natural nitrogen cycle. As Lynch recalls, “there was so much that went into this I think we all felt a little apprehensive about how well we were going to do. Like most new things, they’re challenging at first and then with practice, you get better at it. My friend, Nora Craft, and I would stay after school every other Friday for our turn with the trout. By testing the pH, Ammonia, temperature, Nitrate and Nitrite, we were able to see what was going on that week with the trout and what we needed to do differently to get those levels back to normal.” Nora Craft, also a Marine Biology club member and senior, echoed Lynch’s comments, “I learned a lot from this experience and I enjoyed caring for the fish up until their release.”

The students’ careful attention to detail eventually paid off. The eggs hatched in January, were free-swimming by February, on feed through March, and about an inch in length by April. As Lynch recalls, “A few weeks after the trout had hatched, the biggest challenge we faced was trying to get them to eat. There was a massive visual difference between the trout that were strong, swimming fast and large in size, as compared to the trout that were not eating because they stayed at the bottom of the tank. As we were nearing release day, we had only lost about thirty trout from when we had started back in January.”

Students attending the release

represented a wide diversity of SHS students: Freshmen to Seniors, Lab Biology to AP Biology, and Marine Biology Club members. After arriving at the release site, students first had to evaluate the river’s macroinvertebrate populations as a proxy for water quality and deeming that the river was healthy, released the fingerlings to their fate. As Lynch recalls, “Release day was a little melancholy because we had to let go of our fish friends, but it was exciting to know that we put an abundant amount of healthy, strong trout back into their own habitat. It was even better to know that we had worked so hard to get them to that point and they succeeded.”

The fisherman who waded over to the group pulled out a fish he had recently caught to show the students how their fingerlings would eventually look. In total, 104 tiny brook trout were released into the Assabet River, and although this represents an approximate 50% mortality rate, it is still far less than the natural rate that typically exceeds 90%. Additionally, most of them will probably not make it to adulthood, but they still had a head start on naturally hatched fry in the river, and their presence will serve as an indicator for that river’s overall health. Lynch hopes for the program to continue next year: “It was a huge learning experience for my peers and me,” and Craft added, “It meant a lot to me that (Mr. Brocki) went out of his way so that we could learn and gain experience from the trout release.”



Shrewsbury High School students are shown preparing to release the trout fingerlings they raised into the Assabet River.

Career

CONTINUED from page 5

view for a job in their chosen field. Interviewers consisted of teachers, administrators, and parents, and asked students to answer questions such as, “Tell me about a time that you faced a difficult situation and how you overcame the obstacle,” and “What do you think are the most important attributes of someone who can do this job well?” Ms. Meaney, who designed and began implementing this project five years ago, says

that this culmination of learning has grown over time, “I added on the resume piece as well as more focused instruction on what we call ‘21st Century Professional Skills’ - interview skills, body language, handshakes, email writing, how to write a thank you note, professional attire, and public speaking.”

While it is clear that students have met the grade-level standards for research skills and can give anyone the “ins and outs” of the career field they chose,

what they can also describe is likely what will “stick” with them regardless of where their professional choices take them:

I learned that I will have to be more open minded that plans will change. Problem-solving is important.

You need good social skills. No matter what, you are going to be working with other people.

I learned that your attitude about going into something is important and not to give up.

Budget

CONTINUED from page 5

partment budget recommendation of \$66,302,041 was approved. This is a \$2,164,434 or 3.37% increase over FY19. While this level of town-appropriated funds would not have been sufficient to fund even the “status quo” School Department budget, the FY20 budget process leveraged a projected positive budget variance for the current fiscal year, which exists due to lower than projected costs in categories such as special education tuition and vocational/technical school tuition. It also benefits from lower projections in these categories in FY20 compared to the initial estimates made at the start of the process.

These developments, in combination with increased fee levels and funds from new grants and sponsorships, allow the School Department to:

- 1) Fund our “status quo budget” that allows the district to move its existing programming and staff forward with no reductions in programming or staff.
- 2) Fund new resources beyond the “status quo budget” to advance the district’s strategic priorities and goals, including the addition of 14.3 Full Time Equivalent new positions to address the important needs related to strategic priorities and mandated services. Of the new positions, nearly half will have direct impact on addressing student social, emotional, mental and behavioral health across the elementary, middle and high school levels. The remaining positions being added are mainly due to increases in enrollment, primarily at the high school level. Funding for other strategic investments will be made in software to track at-risk, high-need student progress and additional science materials to address changes in the science curriculum.

There is no question that the students in the Shrewsbury Public Schools receive an excellent education. Students continue to excel in the classroom, and on the field and stage. The district’s results are determined by student achievement, which is supported by state, regional and national recognition for academic strengths. Strong public schools add value to communities and taxpayers. This year’s school budget process reflects a thoughtful approach to funding our schools in an efficient and cost-effective manner.

The School Committee believes our new budget approach, combined with Town Manager Mr. Mizikar’s budget methodology, resulted in a smaller initial budget gap and a more realistic reflection of the budget endpoint. However, the budget process remains difficult. For the period of FY’14 through projected FY’20, Chapter 70 State Aid has increased 6.2%. During the same period, the local contribution required to provide education funding has increased 39.5%. There is significant pressure on the town’s operating budget when state aid is relatively flat. Despite this, the FY20 school budget is good news and the targeted investment in key district priorities will have a positive impact on staff and students.



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