



SHREWSBURY PUBLIC SCHOOLS

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Curriculum and Technology FY23 Budget Details and Recommendations

A report prepared for School Committee by

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Education is a growth industry, and Shrewsbury is committed to continuous growth.

Our district motto is “empowering learners” and the budgets for curriculum, instruction and technology are aligned accordingly. Our expenditures are tied to district goals and the related resources needed to support both student and staff learning.

The table below depicts well our chief areas of focus from 2020-2022:

<i>Strategic Priority</i>	<i>Implications for Curriculum, Instruction & Assessment</i>	<i>Investments in Professional Development</i>
Space & Resources to Support Effective Learning	Identifying tools to support remote, hybrid and/or personalized learning Redistricting	Develop and implement a plan for integrating Seesaw, an online learning platform in pre K- Grade 4 classrooms. Taking inventory and updating curriculum materials K-4
Learning Environments Where Everyone’s Success Matters	Building understanding of the components of Universal Design for Learning (UDL) in order to meet the needs of diverse learners Expanding the co-taught model to SHS, and continuing our efforts to educate staff about diversity, equity and cultural proficiency Exploring ways to leverage technology to improve performance	Coordinate professional development opportunities in: * Universal Design for Learning (UDL) * Components of effective co-teaching for leaders and co-teaching teams * launching the <i>Equitable Educator</i> course with SPS staff Supporting department collaboration Develop capacity for academic interventions * Use data tools to effectively monitor student progress
Enhanced Well-being of All	Together with the Student Services department and building-based leaders implement SEL	Coordinate professional development opportunities needed to effectively use SEL curriculum resources
Connected Learning for a Complex World	Maintain and expand practices that align with the elements of project-based learning.	Develop resources to support complex and connected learning experiences, including new courses and student “pathways” like the Seal of Biliteracy at SHS

As you know, the pandemic shifted our priorities and presented new challenges. Importantly, responding to emerging needs also presented new opportunities and/or fueled increased use of tools and materials. In this way we were able to provide students and families equitable access to district resources and materials.

As we work to achieve district goals we must always respond to state directives as well. In addition to implementing the new Social Science and History standards coming from the Department of Elementary and Secondary Education (DESE) several K-12 departments structured professional development meetings to familiarize staff with new standards for their disciplines this year. Specifically, the Visual Arts department, Performing Arts and the World Language departments used meeting time to explore new standards and to adjust the curriculum accordingly. Similarly, new offerings in the Program of Studies for Shrewsbury High will be supported by summer curriculum development hours for teachers at the secondary level.

As depicted in the Strategic Priority table, much of the improvements that result in better learning experiences for students start with increasing staff capacity. The role of the Curriculum, Instruction and Assessment office is to engage and support staff learning. Thus the budget for this office helps to fund teaching and learning related to each strategic priority and every content area. The results our students achieve are tied to the investments we've made in developing sound instructional practices, securing powerful tools and maintaining strong systems of support for students and families. More recently, the addition of teacher leader roles has helped to strengthen professional development efforts.

Curriculum & Instruction Budget Overview

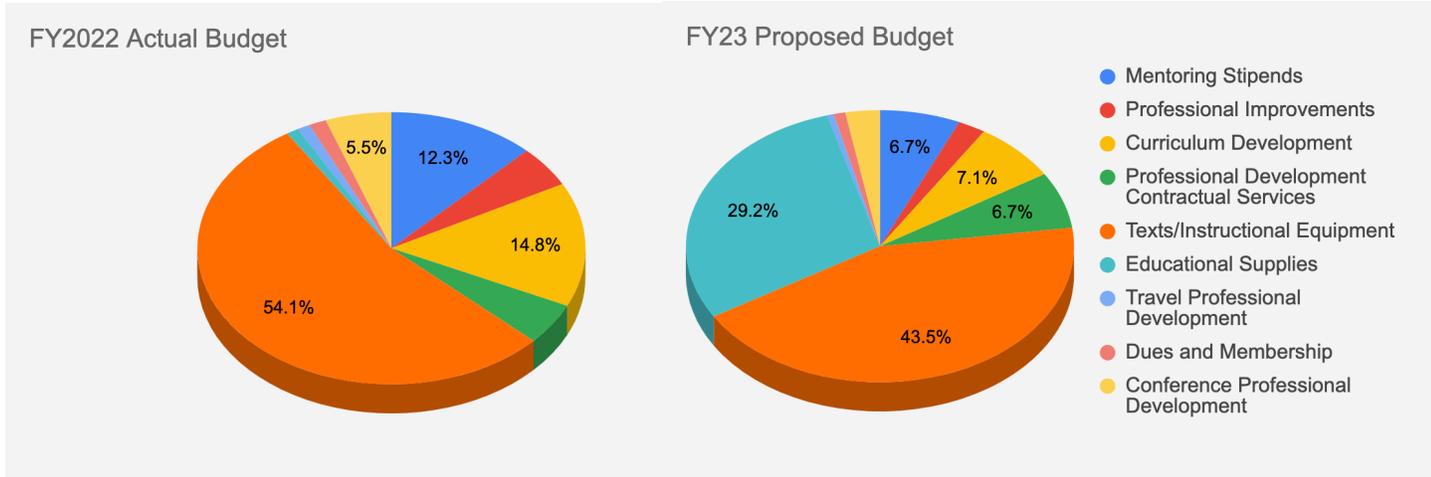
Account	FY2022 Actual Budget	FY23 Proposed Budget	Difference FY22 Actual / FY23 Proposed
Mentoring Stipends	\$30,000	\$35,000	\$5,000
Professional Improvements	\$11,971	\$12,000	\$29
Curriculum Development	\$36,100	\$37,000	\$900
Professional Development Contractual Services	\$12,110	\$35,000	\$22,890
Texts/Instructional Equipment	\$132,096	\$227,096	\$95,000
Educational Supplies	\$2,457	\$152,457	\$150,000
Travel Professional Development	\$2,550	\$3,000	\$450
Dues and Membership	\$3,570	\$5,000	\$1,430
Conference Professional Development	\$13,460	\$15,000	\$1,540
TOTAL	\$244,314	\$521,553	+ \$277,239

As shown in the table above, the budget recommendation for fiscal year 2023 includes increases in allocations across the board, and significant increases in texts, instructional equipment, educational supplies and professional development. The impact of budget cuts made in prior years was mitigated by the Elementary and Secondary School Emergency Relief Fund (ESSER II and III), state and federal grants made available as a result of school closure. The successful passage of the override makes it possible to better fund the Curriculum, Instruction and Assessment budget. While the gains depicted above show significant change, overall the story is one of restoring the Curriculum and Instruction budget with the goal of maintaining the new systems we’ve put into place and enabling continued improvement. It’s important to keep both objectives in mind, because the cost of traditional district investments has increased. For example, the cost of our mentoring program this year exceeded the district’s Title II grant allocation. This same grant typically supports professional development, meaning more of the appropriated budget was used for this purpose. Fortunately, the district has been successful in securing support from the community, including resources from new funding sources. One example of this is found in our work in strengthening school climates and providing professional development to staff related to Social Emotional Learning (SEL). The *Character Strong* SEL curriculum used at all levels was funded by a combination of Title IV grant funds, The Colonial Fund and the appropriated budget.

Overall, the budget for Curriculum, Instruction and Assessment is made up of nine categories. The charts below depict the allocations proposed for FY 23 as compared with the actual 2022 budget.

FY 2022: \$244,314

FY 2023: \$521,553



Given the rapid pace of change present in education, it should be no surprise that periodic investment in upgraded curriculum materials is needed. For example, data about the high number of students receiving specialized reading instruction suggests that the district will need to consider investing in a new literacy program for Grades K-8 in the coming year. Additionally, materials to support students with diverse learning needs at all levels have become increasingly important. Another new need we anticipate is providing curriculum resources for newcomers, students that are at the very beginning stages of learning English.

New Needs

Our investment in educational materials has changed considerably over time. Initially the use of professional development to create instructional materials resulted in a reduction of funds needed for textbooks. The table below shows 2015 expenditures and subsequent savings.

Content Area	Anticipated Costs	Cost of Teacher Created Texts	Total Savings
9 th Grade World Civilization	\$53,625	\$9,500	\$44,125
10 th Grade US History 1	\$52,750	\$9,500	\$43,250
11 th Grade US History 2	\$46,250	\$9,500	\$36,750
5-8 ELA Writing Guide	\$93,400 (Write Source)	\$0	93,400
Total			\$217,525

In the time since, however, the district has increased the use of digital subscriptions. These tools allow teachers to personalize learning. Although effective, adaptive software is also expensive. For example, next year the district is coming to the end of our contract with McGraw Hill for Assessment and Learning in Knowledge Spaces (ALEKS) for example, software the Math

department relies on to differentiate instruction and facilitate skills development.

Finally, we continue to use some traditional instructional materials by design, and replacement of worn and/or outdated materials is ongoing. At Shrewsbury High School, shifting enrollment in Advanced Placement (AP) classes results in ongoing costs for new textbooks and teacher training. It is just as important to update, renew and replace text sets and instructional materials in the classroom and in our media centers.

Curriculum, Instruction & Assessment Budget Details

Item

**FY 23
Cost**

Mentoring Stipends

This cost provides mentors for new professional staff hired in Shrewsbury. In FY17 we shifted this cost to the Title IIA grant. These federal grant funds may not be available for FY19.

\$35,000

Professional Improvements

This amount is lower this year because we do not anticipate a loss in Title IIA grant funding.

\$12,000

Curriculum Development

This line item provides funds for various summer and school year curriculum projects. The district is currently engaged in curriculum work related to the new science standards. This line item also funds the development and organization of digital resources. This work reduces the district's need for textbook replacement.

\$37,000

Professional Development Contractual Services

This line item will support the Strategies for Effective Teaching (SET) course for new teachers, the Primary Source Partnership, Early Release and Professional Day training, consultants for science and project-based learning initiatives. Next year this item will support Social Science curriculum development.	\$35,000
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Texts/Instructional Equipment

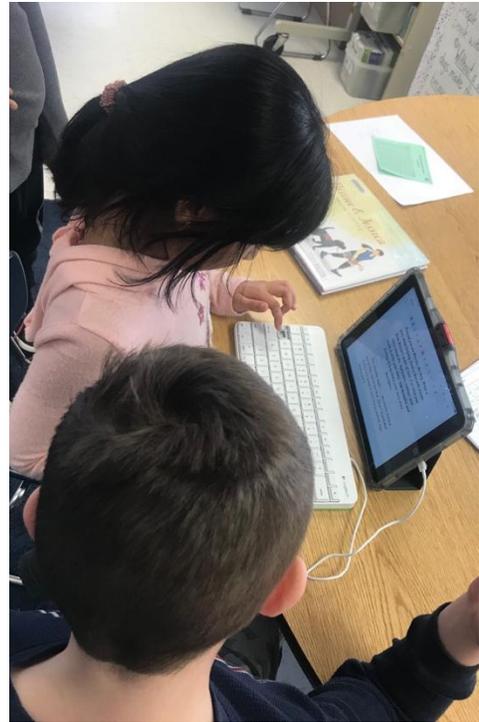
Most of the instructional materials being purchased are now digital: Mathematica, accounting software, Listen Current, Noodle Tools, STEMscopes, and various apps. This line item has been reduced over time due to the availability of additional free digital resources. The consumable math resources for K-5 are also included in this line item.	\$227,096
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Conference Professional Development

This line item supports our teachers in attaining the necessary qualifications to teach AP courses, and funds to provide teacher leaders the opportunity to attend conferences that support the district's strategic priorities.	\$15,000
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Digital Learning

Pre-pandemic, digital learning was integrated into the district's instructional program across all grade levels. For example, in the 1:1 environment, teachers used Apple Classroom, a no-cost classroom management tool, to monitor what students are doing on their digital devices during class time. Monitoring what students are doing took on a whole new meaning once COVID-19 hit, and many of the routines that were effective for in-person schooling shifted to better respond to student needs. For example, assessment informs lesson planning. It's critical to gauge student understanding as part of the learning process. However, with limited in-person learning days, our educators sought to prioritize teaching. Fortunately the district's plan to implement the Star assessment helped to fill the gap. Our use of this digital tool includes a practice feature called Freckle that uses adaptive software to match students to specific skills. That practice tool remained helpful in supporting students with diverse needs this year.



Similarly, our investment in Schoology across the district has long facilitated communication between teachers, students and parents in Grades 5-12. However, parents and educators at the Elementary level were not familiar with the platform. For this reason, we chose to invest more heavily in a tool called Seesaw. In 2020-2021, educators in Grades pre K-4 collaborated across schools to create educational plans. Families accessed these plans via Seesaw, enabling students to submit assignments, photographs and messages in response. The connection between home and school afforded by the universal availability of this tool was invaluable during closure, and Seesaw remains an important tool for fostering home-school relationships. At the same time, we've added new tools in response to

identified communication gaps. For example, Talking Points, an application that allows educators to more effectively communicate with families whose first language is not English, makes it simpler for families to connect with teachers using the text feature of their cell phones, enabling the translation needed to ensure effective two-way communication.

Elementary 1:1 Program

In March of 2020 when the pandemic caused us to transition to remote learning, students in Grades 5-12 already had district-provided iPads. However, our K-4 students did not. The IT department quickly deployed iPads to students who did not have access to devices to use for learning at home while students who had access to a learning device at home used what they had available. While this worked as a temporary solution, it added a level of complexity for teachers and IT staff to support students working on varied devices.

At the start of the 2020-2021 school year, the IT department distributed iPads to all K-4 students in order to ensure an equitable learning experience for all students, regardless of access to devices at home. This enabled students to more easily participate in hybrid and remote learning. It also provided all students with equitable access to learning tools and resources, both at school and at home.

Our current model enables teachers to plan lessons, units, and projects that integrate technology in meaningful and consistent ways. It also provides teachers with opportunities to take advantage of teachable moments that are enhanced through technology. Teachers utilize iPads to enhance teaching and learning across the subject areas.

The 1:1 model also enables teachers to provide their students with easy access to special events and activities. Students across the district participate in the Hour of Code to celebrate Computer Science Education Week. Increasingly, students and staff alike are seeing digital learning less like an event and more like an everyday experience. In the classroom and in our media centers, students engage with block coding activities that introduce them to computational thinking concepts.



Many instructional tools available for use with iPads are available at no cost, including:

- Nearpod
- QR codes
- Padlet
- Google Drive/Docs
- Pages
- Numbers
- Keynote
- iMovie

Going forward, it will be important to continue to consider which tools are the best match for teaching and learning at every level, as some of the tools most often used, like Book Creator and Notability, are fee-based.

Digital Instructional Tools

As a result of Shrewsbury's investment in personal technology devices, students continue to access digital instructional tools that serve to positively redefine learning experiences. These tools better prepare them for the learning and working environments they will encounter in their future. Previous presentations have demonstrated the use of digital resources that enhance Science instruction, including STEMscopes at the middle level and Mystery Science, a program accessed by students in the younger grades. Educators rely on similar tools to supplement instruction in Social Studies and English Language Arts.

Discovery Education

Providing educators access to standards-based digital curriculum, this tool is used by Social Science teachers in Grades 5 and 6 to engage students in interactive content.

Listenwise

Designed to engage older learners in Social Science, History and English Language Arts classes in Grades 9-12, this online resource is an audio platform containing information about current events that facilitates listening, literacy and critical thinking skills.

Sora

Sora is an app and a website that provides students with access to eBooks and audiobooks. Students can borrow up to 3 books at a time. Students have the option to add a public library card to their account to increase the number of books they can access.

Information Technology Budget Overview

The Information Technology department is responsible for the purchasing, implementation, maintenance, and support of technology within the district. As the use of technology by teachers and students has increased, the reliability of technology in the district has become increasingly important. In addition to ensuring the reliability of existing services, devices that were formerly not IT-based are becoming increasingly dependent upon IT services (e.g., security cameras, electronic door locks, copiers, clocks, cafeteria point-of-sale systems, etc.). The proposed IT budget supports these functions.

Account	FY2022 Actual Budget	FY2023 Proposed Budget	Difference
PD: Dues & Memberships	\$450	\$500	\$41
PD: Conferences	\$4,080	\$4,100	\$20
Inst. Tech: Supplies	\$19,380	\$20,155	\$775
Inst. Tech: Networking	\$144,000	\$149,760	\$5,760
Inst. Tech: Hardware	\$604,000	\$684,000	\$80,000
Inst. Tech: Software	\$166,000	\$166,000	\$0
Networking Infrastructure	\$56,000	\$56,000	\$0

Data Processing	\$185,000	\$190,000	\$5,000
AV Supplies	\$7,100	\$7,384	\$284
AV Equipment	\$34,990	\$36,390	\$1,400
Repair and Maintenance: Equip	\$61,520	\$63,981	\$2,461
TOTAL	\$1,282,520	\$1,378,270	\$95,750

* Please note that this budget detail does not include salaries and wages or line items for Media Services, both of which are included in the ITAMS total on page 46 of the budget book.

Recent Information Technology Investments

The availability of one-time funding at various points during fiscal years 2020, 2021, and 2022 allowed for a number of investments in technology. These investments have improved the capability and reliability of our technology systems while reducing the need for increases in appropriated funding for FY 2023.

- **K-4 expansion of the 1:1 technology program**
The combination of COVID funding, Beal School building project funding (for Beal students), and some appropriated budget funding allowed for the expansion of the District’s 1:1 technology program to kindergarten and grades one through four.
- **Additional staff laptops**
COVID necessitated the purchase of laptops to temporarily replace stationary computer labs due to social distancing requirements, and for COVID test processing. We have since been able to repurpose these laptops to upgrade aging staff laptops.
- **Short-throw projectors at OMS & SHS**
All classrooms at Oak Middle School and the majority of classrooms at Shrewsbury High School have relied on the use of projectors on carts. Although supply chain constraints have delayed implementation of portions of this project, by the start of the 2022-2023 school year, we expect that all OMS and SHS classrooms will have been upgraded to “short-throw” wall-mounted projectors and sound systems, similar to what is in place in all PK-6 classrooms (with the exception of the interactive features used at the lower grades). These wall-mounted projectors eliminate the need for projector carts, which take valuable classroom space and decrease the flexibility with which teachers can arrange their classrooms. In addition, these wall-mounted projector setups allow for more standardized configurations that facilitate the movement of teachers between shared classrooms, particularly at SHS due to space limitations.
- **Computer lab upgrades**
A number of computer labs were in need of upgrades in order to maintain the ability to run supported operating systems. Upgrades to the SHS M104 lab, the OMS music lab, the OMS media lab, and the SMS media lab are currently in process.

Additional Information Technology Staffing

In addition to equipment purchases, the combination of one-time funding and funding from the appropriated budget over the past few years has allowed for the addition of a number of IT staff positions to serve both tactical and strategic needs.

- **Additional building-based IT support specialists**
Initially added to respond to acute needs during remote and hybrid learning, these positions have allowed us to maintain at least one IT support specialist at each K-12 school, including the new Beal School. This staffing model allows us to provide faster response to staff and student IT needs and more effectively support the K-12 1:1 technology program.
- **Additional audiovisual (AV) IT support specialist**
Over the years, the number and importance of projectors has significantly increased, such that all of the district's classrooms and presentation spaces have projectors, whether they be permanently-installed short-throw or ceiling-mounted projectors, or largely cart-based portable projectors. Projectors have become a mission-critical component of teachers' lesson plans. Over the same period, the frequency of both internal and outside-group large-scale events requiring AV support has increased. At the same time, usage of the buildings off-hours and during the summers has increased, reducing the available time to perform required maintenance. We are in the process of hiring an additional AV-focused IT support specialist. This position will allow us to meet this growing demand.
- **Data specialist**
The need for a dedicated data professional to assist staff members with meaningful and actionable analysis of student performance data has long been identified. We are fortunate to have been able to add this position, and we are in the process of onboarding the person who will be serving in this important role. In addition to assisting with data analysis, this staff member will be handling Department of Elementary & Secondary Education (DESE) Electronic Personnel Information Management System (EPIMS) reporting, freeing much-needed capacity for the Human Resources department, which previously handled this function.

Information Technology Budget Details FY 2023

Thanks to the availability of one-time funding in FY 2020-2022 that allowed for the investments listed above, there are fewer increases needed for FY 2023 than in past years. The main increase is listed below.

Item	FY23 Cost
Inst. Tech: Hardware	
Additional staff laptops to maintain 5-year replacement cycle	\$80,000

Curriculum & Technology: Fueling Innovation Together

Instructional resources are increasingly digitized, and so the curriculum and technology budgets are increasingly interconnected and interdependent. This report seeks to separate out and summarize proposed expenditures for both the curriculum/instruction and technology departments, but it's important to note that these two groups work in tandem. Although investments may shift over time, our shared goal is to deliver a high quality instructional experience to Shrewsbury's students.

Appendix

Please click these links for more information on digital tools:

Apple Classroom

http://images.apple.com/media/us/education/2016/1e867897_5de3_45db_ac71_d635d1ccb5a5/inspiration/classroom-app/education-classroom-app-cc-us-20160427_r848-9dwc.mov

Discovery Education: <https://www.discoveryeducationglobal.com>

STEMScopes: <http://stemscopes.com/home.php>

Listenwise: <https://listenwise.com>

Mystery Science: <https://mysteryscience.com>

Nearpod: <https://nearpod.com/>

QR Codes: <https://www.whatihavelearnedteaching.com/using-qr-codes-in-the-classroom/>

Padlet: <https://padlet.com/features>

I Movie: <https://www.apple.com/imovie/>

SeeSaw: <https://web.seesaw.me>

Sora: <https://soraapp.com/library/masslibma>

Sphero (robots): <https://www.sphero.com/>