

Smart Schools Investment Plan - 2016-17 Version (Original) - Infrastructure, Student Devices & STEAM

SSIP Overview

1. Please enter the name of the person to contact regarding this submission.

Heidi Reale

- 1a. Please enter their phone number for follow up questions.

716-569-7033

- 1b. Please enter their e-mail address for follow up contact.

hreale@frewsburgcsd.org

2. Please indicate below whether this is the first submission, a new or supplemental submission or an amended submission of an approved Smart Schools Investment Plan.

First submission

3. All New York State public school districts are required to complete and submit a District Instructional Technology Plan survey to the New York State Education Department in compliance with Section 753 of the Education Law and per Part 100.12 of the Commissioner's Regulations. Districts that include investments in high-speed broadband or wireless connectivity and/or learning technology equipment or facilities as part of their Smart Schools Investment Plan must have a submitted and approved Instructional Technology Plan survey on file with the New York State Education Department.

By checking this box, you certify that the school district has an approved District Instructional Technology Plan survey on file with the New York State Education Department.

District Educational Technology Plan Submitted to SED and Approved

4. Pursuant to the requirements of the Smart Schools Bond Act, the planning process must include consultation with parents, teachers, students, community members, other stakeholders and any nonpublic schools located in the district.

By checking the boxes below, you are certifying that you have engaged with those required stakeholders. Each box must be checked prior to submitting your Smart Schools Investment Plan.

Parents

Teachers

Students

Community members

- 4a. If your district contains non-public schools, have you provided a timely opportunity for consultation with these stakeholders?

Yes

No

N/A

5. Certify that the following required steps have taken place by checking the boxes below: Each box must be checked prior to submitting your Smart Schools Investment Plan.

The district developed and the school board approved a preliminary Smart Schools Investment Plan.

The preliminary plan was posted on the district website for at least 30 days. The district included an address to which any written comments on the plan should be sent.

The school board conducted a hearing that enabled stakeholders to respond to the preliminary plan. This hearing may have occurred as part of a normal Board meeting, but adequate notice of the event must have been provided through local media and the district website for at least two weeks prior to the meeting.

The district prepared a final plan for school board approval and such plan has been approved by the school board.

The final proposed plan that has been submitted has been posted on the district's website.

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SSIP Overview

5a. Please upload the proposed Smart Schools Investment Plan (SSIP) that was posted on the district's website, along with any supporting materials. Note that this should be different than your recently submitted Educational Technology Survey. The Final SSIP, as approved by the School Board, should also be posted on the website and remain there during the course of the projects contained therein.

(No Response)

5b. Enter the webpage address where the final Smart Schools Investment Plan is posted. The Plan should remain posted for the life of the included projects.

(No Response)

6. Please enter an estimate of the total number of students and staff that will benefit from this Smart Schools Investment Plan based on the cumulative projects submitted to date.

970

7. An LEA/School District may partner with one or more other LEA/School Districts to form a consortium to pool Smart Schools Bond Act funds for a project that meets all other Smart School Bond Act requirements. Each school district participating in the consortium will need to file an approved Smart Schools Investment Plan for the project and submit a signed Memorandum of Understanding that sets forth the details of the consortium including the roles of each respective district.

The district plans to participate in a consortium to partner with other school district(s) to implement a Smart Schools project.

8. Please enter the name and 6-digit SED Code for each LEA/School District participating in the Consortium.

Partner LEA/District	SED BEDS Code
(No Response)	(No Response)

9. Please upload a signed Memorandum of Understanding with all of the participating Consortium partners.

(No Response)

10. Your district's Smart Schools Bond Act Allocation is:

\$890,103

11. Enter the budget sub-allocations by category that you are submitting for approval at this time. If you are not budgeting SSBA funds for a category, please enter 0 (zero.) If the value entered is \$0, you will not be required to complete that survey question.

	Sub-Allocations
School Connectivity	90,000
Connectivity Projects for Communities	0
Classroom Technology	287,300
Pre-Kindergarten Classrooms	0
Replace Transportable Classrooms	0
High-Tech Security Features	0
Totals:	377,300

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School Connectivity

1. In order for students and faculty to receive the maximum benefit from the technology made available under the Smart Schools Bond Act, their school buildings must possess sufficient connectivity infrastructure to ensure that devices can be used during the school day. Smart Schools Investment Plans must demonstrate that:
 - sufficient infrastructure that meets the Federal Communications Commission’s 100 Mbps per 1,000 students standard currently exists in the buildings where new devices will be deployed, or
 - is a planned use of a portion of Smart Schools Bond Act funds, or
 - is under development through another funding source.

Smart Schools Bond Act funds used for technology infrastructure or classroom technology investments must increase the number of school buildings that meet or exceed the minimum speed standard of 100 Mbps per 1,000 students and staff within 12 months. This standard may be met on either a contracted 24/7 firm service or a "burstable" capability. If the standard is met under the burstable criteria, it must be:

1. Specifically codified in a service contract with a provider, and
2. Guaranteed to be available to all students and devices as needed, particularly during periods of high demand, such as computer-based testing (CBT) periods.

Please describe how your district already meets or is planning to meet this standard within 12 months of plan submission.

The Frewsburg Central School District has incoming broadband service provided by Spectrum Enterprise. That connection is made at the Frewsburg Jr. Sr. High School and delivered to the Robert H. Jackson Elementary School via single mode fiber. The District also provides network services to the bus garage through a wireless bridge. In an already approved capital project that link will be upgraded to fiber in order to provide a more robust connection.

The Frewsburg Jr. Sr High School has four wiring closets that connect all offices, classrooms and common areas to our network. Robert H. Jackson Elementary has two wiring closets. The switches in each of these closets are currently under a maintenance contract with Erie I BOCES. This equipment supports the minimum speed standard mentioned above as well as power over Ethernet for our IP phones, surveillance cameras and access points, but will need to be upgraded to take full advantage of the upgraded wireless system and other future upgrades. We plan to utilize Smart Schools funds to upgrade the switches in each of these closets. They will support the current power of Ethernet standard and once again future proof the district’s initiatives.

All of the wiring closets are equipped with uninterruptable power supplies (UPS) to maintain power to the switches until the generator takes over, sustaining power. This means the IP phones, wireless access points, security cameras, and servers remain available, even during a power outage. Currently both schools within the Frewsburg Central School District are equipped with an Avaya wireless system, including an access point in each classroom. This system was purchased and installed in 2013 through Erie I BOCES. While we currently meet the minimum speed standard of 100Mbps per 1,000 students, we plan to apply for 2018-19 eRate funds to upgrade this system. We believe this will insure we have future proofed our infrastructure as we complete our 1:1 initiative across the whole district.

- 1a. If a district believes that it will be impossible to meet this standard within 12 months, it may apply for a waiver of this requirement, as described on the Smart Schools website. The waiver must be filed and approved by SED prior to submitting this survey.

By checking this box, you are certifying that the school district has an approved waiver of this requirement on file with the New York State Education Department.

2. Connectivity Speed Calculator (Required)

	Number of Students	Multiply by 100 Kbps	Divide by 1000 to Convert to Required Speed in Mb	Current Speed in Mb	Expected Speed to be Attained Within 12 Months	Expected Date When Required Speed Will be Met
Calculated Speed	820	82,000	82	100	100	Current

3. Describe how you intend to use Smart Schools Bond Act funds for high-speed broadband and/or wireless connectivity projects in school buildings.

We plan to utilize Smart Schools funds to upgrade the switches in all of wiring closets. These switches will support the current Power of Ethernet standard and will future proof the district’s initiatives requiring Power of Ethernet technology.

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School Connectivity

- 4. Describe the linkage between the district's District Instructional Technology Plan and the proposed projects. (There should be a link between your response to this question and your response to Question 1 in Part E. Curriculum and Instruction "What are the district's plans to use digital connectivity and technology to improve teaching and learning?")**

It is our belief that technology integration should support and enhance curriculum at all grade levels. We will focus on providing high quality professional development with a focus on digital resources that complement/extend the curriculum. Technology integrators will assist teachers in bridging gaps within their curriculum by helping them address areas of both strength and weakness to challenge and support all learners. Exposing teachers and students to relevant online digital resources to enhance the curriculum will assist us in cultivating a blended learning environment. We will strive to provide a personalized learning experience for students by using digital content to differentiate instruction. In addition, our focus will extend student opportunities in Science, Technology, Engineering, Art, and Mathematics. The establishment of a STEAM program that prepares students for careers in the evolving 21st Century workplace will be a priority with a special focus on the development of an updated Industrial Arts curriculum and enhancement of performing arts equipment.

We recognize that for the students currently enrolled at Frewsburg Central School their living environment will be significantly different as advances in technology create changes in how they interact with society. If our graduates are to be successful we must develop a two-pronged initiative. First, we must ensure students are familiar and comfortable with existing technologies and can use this knowledge in practical applications, both in the workplace and for personal skills improvement. Secondly, and perhaps equally importantly, we must instill in students a resiliency to adapt to even further technological change and the ability to integrate and apply new technology into helping them meet their individual life goals, as socially responsible, digitally literate citizens.

INSTRUCTIONAL GOALS

Goal 1: Instill in students a resiliency to adapt to further technological change with the ability to integrate and apply new technology as responsible, digital citizens.

Goal 2: Exposing teachers and students to relevant online digital resources to provide a personalized learning experience for students, while utilizing resources to assist teachers in bridging curriculum gaps.

Goal 3: Establish a Science, Technology, Engineering, Art, and Mathematics (STEAM) program that prepares students for careers in the evolving 21st century workplace, with a special focus on the development of an updated Industrial Arts curriculum.

Goal 4: Ensure that all students and staff have access to current technology to improve academic achievement through relevant hardware and software.

- 5. If the district wishes to have students and staff access the Internet from wireless devices within the school building, or in close proximity to it, it must first ensure that it has a robust Wi-Fi network in place that has sufficient bandwidth to meet user demand.**

Please describe how you have quantified this demand and how you plan to meet this demand.

Currently the schools within Frewsburg Central School District are equipped with a wireless system, including an access point in each classroom. We have insured that all of our instructional areas have a minimum of one access point per 25 students. While we currently meet the minimum speed standard of 100Mbps per 1,000 students, we plan to apply for 2018-19 eRate funds to upgrade this system. We will continue to evaluate common areas such as the library and gymnasiums to make sure the changing demands of those areas are adequately supported in regard to wireless. The technology department will perform connectivity tests at varying times of the year to determine if the load is properly balanced and strong connection available to the students and staff.

- 6. As indicated on Page 5 of the guidance, the Office of Facilities Planning will have to conduct a preliminary review of all capital projects, including connectivity projects.**

Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

Project Number
(No Response)

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School Connectivity

7. Certain high-tech security and connectivity infrastructure projects may be eligible for an expedited review process as determined by the Office of Facilities Planning.

Was your project deemed eligible for streamlined review?

(No Response)

8. Include the name and license number of the architect or engineer of record.

Name	License Number
(No Response)	(No Response)

9. If you are submitting an allocation for **School Connectivity** complete this table. **Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.**

	Sub-Allocation
Network/Access Costs	136,200
Outside Plant Costs	(No Response)
School Internal Connections and Components	(No Response)
Professional Services	(No Response)
Testing	(No Response)
Other Upfront Costs	(No Response)
Other Costs	(No Response)
Totals:	136,200

10. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be eligible for tax-exempt financing to be reimbursed through the SSBA. Sufficient detail must be provided so that we can verify this is the case. If you have any questions, please contact us directly through smartschools@nysed.gov. **NOTE: Wireless Access Points should be included in this category, not under Classroom Educational Technology, except those that will be loaned/purchased for nonpublic schools.** Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Network/Access Costs	Wiring Closet Switches	24	2,900	81,200
Network/Access Costs	Server Switches	4	6,000	24,000
Network/Access Costs	Dual Core	1	31,000	31,000

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Community Connectivity (Broadband and Wireless)

1. Describe how you intend to use Smart Schools Bond Act funds for high-speed broadband and/or wireless connectivity projects in the community.

(No Response)

2. Please describe how the proposed project(s) will promote student achievement and increase student and/or staff access to the Internet in a manner that enhances student learning and/or instruction outside of the school day and/or school building.

(No Response)

3. Community connectivity projects must comply with all the necessary local building codes and regulations (building and related permits are not required prior to plan submission).

I certify that we will comply with all the necessary local building codes and regulations.

4. Please describe the physical location of the proposed investment.

(No Response)

5. Please provide the initial list of partners participating in the Community Connectivity Broadband Project, along with their Federal Tax Identification (Employer Identification) number.

Project Partners	Federal ID #
(No Response)	(No Response)

6. If you are submitting an allocation for **Community Connectivity**, complete this table. Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Network/Access Costs	(No Response)
Outside Plant Costs	(No Response)
Tower Costs	(No Response)
Customer Premises Equipment	(No Response)
Professional Services	(No Response)
Testing	(No Response)
Other Upfront Costs	(No Response)
Other Costs	(No Response)
Totals:	0

7. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov. Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

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Classroom Learning Technology

1. In order for students and faculty to receive the maximum benefit from the technology made available under the Smart Schools Bond Act, their school buildings must possess sufficient connectivity infrastructure to ensure that devices can be used during the school day. Smart Schools Investment Plans must demonstrate that sufficient infrastructure that meets the Federal Communications Commission’s 100 Mbps per 1,000 students standard currently exists in the buildings where new devices will be deployed, or is a planned use of a portion of Smart Schools Bond Act funds, or is under development through another funding source.

Smart Schools Bond Act funds used for technology infrastructure or classroom technology investments must increase the number of school buildings that meet or exceed the minimum speed standard of 100 Mbps per 1,000 students and staff within 12 months. This standard may be met on either a contracted 24/7 firm service or a "burstable" capability. If the standard is met under the burstable criteria, it must be:

1. Specifically codified in a service contract with a provider, and
2. Guaranteed to be available to all students and devices as needed, particularly during periods of high demand, such as computer-based testing (CBT) periods.

Please describe how your district already meets or is planning to meet this standard within 12 months of plan submission.

Currently, both schools within the Frewsburg Central School District are equipped with an Avaya wireless system, including an access point in each classroom. This system was purchased and installed in 2013 through Erie I BOCES. While we currently meet the minimum speed standard of 100Mbps per 1,000 students, we plan to apply for 2018-19 eRate funds to upgrade this system. We believe this will insure we have future proofed our wireless infrastructure as we complete our 1:1 initiative across the whole district. Additionally as part of this Smart Schools Bond Act Plan, we intend to utilize funds to further upgrade the network backbone components. Those items will include upgrading the dual core controller that provides redundancy, switches for our servers and wiring closet switches for our endpoints to connect faster and insure we have future proofed this incredibly important infrastructure.

- 1a. If a district believes that it will be impossible to meet this standard within 12 months, it may apply for a waiver of this requirement, as described on the Smart Schools website. The waiver must be filed and approved by SED prior to submitting this survey.

By checking this box, you are certifying that the school district has an approved waiver of this requirement on file with the New York State Education Department.

2. Connectivity Speed Calculator (Required)

	Number of Students	Multiply by 100 Kbps	Divide by 1000 to Convert to Required Speed in Mb	Current Speed in Mb	Expected Speed to be Attained Within 12 Months	Expected Date When Required Speed Will be Met
Calculated Speed	820	82,000	82	100	100	current

3. If the district wishes to have students and staff access the Internet from wireless devices within the school building, or in close proximity to it, it must first ensure that it has a robust Wi-Fi network in place that has sufficient bandwidth to meet user demand.

Please describe how you have quantified this demand and how you plan to meet this demand.

Currently, both schools within the Frewsburg Central School District are equipped with an Avaya wireless system, including an access point in each classroom. Those access points are specified to allow up to 50 concurrent connections, with our class sizes not to exceed 25, including the instructor, we feel this is adequate classroom wireless coverage. In larger areas, such as gymnasiums, we’ve added more access points to meet the demand of a larger physical space. The wireless is currently in compliance with the minimum speed standard of 100Mbps per 1,000 students and we plan to utilize eRate funding to upgrade that system, insuring future expandability and resilience.

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Classroom Learning Technology

4. **All New York State public school districts are required to complete and submit an Instructional Technology Plan survey to the New York State Education Department in compliance with Section 753 of the Education Law and per Part 100.12 of the Commissioner's Regulations.**

Districts that include educational technology purchases as part of their Smart Schools Investment Plan must have a submitted and approved Instructional Technology Plan survey on file with the New York State Education Department.

By checking this box, you are certifying that the school district has an approved Instructional Technology Plan survey on file with the New York State Education Department.

5. **Describe the devices you intend to purchase and their compatibility with existing or planned platforms or systems. Specifically address the adequacy of each facility's electrical, HVAC and other infrastructure necessary to install and support the operation of the planned technology.**

It is our district's intent to purchase student devices to complete the district's 1:1 device initiative for all grades. These devices will be purchased in compliance with existing network standards and will seamlessly connect to the district's Active Directory.

We developed a comprehensive needs assessment with input from teachers and administrators. This needs assessment was completed by students in grades 7-10. We chose this grade band to gain insight from grades 7 and 8 based on their prior years attending our elementary school through 6th grade. 9th and 10th grade was chosen to provide a picture of the needs in our middle level/high school. In all, 209 students completed the needs assessment.

We discovered that overall our students have had limited opportunities to engage in lessons utilizing skills such as coding. We also identified a trend in the difference between females and males in the areas of electronic project completion and computer code. Although students have had some access to a 3D printer, only 17 of the females surveyed and 22 males had used this equipment out of 209 students that took the assessment.

Based on the data from this needs assessment we made the following observations:

- Females in grades 7-10 do not feel as confident pursuing a career in the engineering field as their male peers;
- Both males and females have had limited interaction with electronics (LEGO projects, LittleBits);
- More males than females report having experience writing computer code;
- Low numbers of both males and females report having had the opportunity to use a 3D printer;
- A lower interest in how computers and electronics work was highlighted amongst females;
- When asked if they could be successful in an engineering career field, more than double the males responded yes indicating a very low confidence level of females; and
- Overall only a few students in our district have ever participated in a MakerSpace.

Our interpretations and conversations with stakeholders based on this data also revealed:

- Space is an issue; classrooms setup and arranged in the traditional manner limit collaborative/makerspace to infuse STEAM based projects;
- Females are not signing up to participate in extracurricular STEAM based initiatives (LEGO league); and
- Despite the district initiative regarding Personalized Learning, the blended learning models have not fully operationalized yet.

Conclusion: Plan was created to establish a Science, Technology, Engineering, Art and Mathematics (STEAM) program that prepares students for careers in the evolving 21st century workplace, with a special focus on the development of an updated Industrial Arts curriculum.

We have tested the facility's electrical capacity by successfully implementing laptop carts with the same quantity of devices within the same areas as will now hold devices for each student. HVAC is not expected to be impacted.

Smart Schools Investment Plan - 2016-17 Version (Original) - Infrastructure, Student Devices & STEAM**Classroom Learning Technology**

6. Describe how the proposed technology purchases will:
- > enhance differentiated instruction;
 - > expand student learning inside and outside the classroom;
 - > benefit students with disabilities and English language learners; and
 - > contribute to the reduction of other learning gaps that have been identified within the district.

The expectation is that districts will place a priority on addressing the needs of students who struggle to succeed in a rigorous curriculum. Responses in this section should specifically address this concern and align with the district's Instructional Technology Plan (in particular Question 2 of E. Curriculum and Instruction: "Does the district's instructional technology plan address the needs of students with disabilities to ensure equitable access to instruction, materials and assessments?" and Question 3 of the same section: "Does the district's instructional technology plan address the provision of assistive technology specifically for students with disabilities to ensure access to and participation in the general curriculum?")

It is our belief that technology integration should support and enhance curriculum at all grade levels. We will focus on providing high quality professional development with a focus on digital resources that complement/extend the curriculum. Technology integrators will assist teachers in bridging gaps within their curriculum by helping them address areas of both strength and weakness to challenge and support all learners. Exposing teachers and students to relevant online digital resources to enhance the curriculum will assist us in cultivating a blended learning environment. We will strive to provide a personalized learning experience for students by using digital content to differentiate instruction. In addition, our focus will extend student opportunities in Science, Technology, Engineering, Art, and Mathematics. The establishment of a STEAM program that prepares students for careers in the evolving 21st Century workplace will be a priority with a special focus on the development of an updated Industrial Arts curriculum and enhancement of performing arts equipment.

We developed a comprehensive needs assessment with input from teachers and administrators. This needs assessment was completed by students in grades 7-10. We chose this grade band to gain insight from grades 7 and 8 based on their prior years attending our elementary school through 6th grade. 9th and 10th grade was chosen to provide a picture of the needs in our middle level/high school. In all, 209 students completed the needs assessment.

We discovered that overall our students have had limited opportunities to engage in lessons utilizing skills such as coding. We also identified a trend in the difference between females and males in the areas of electronic project completion and computer code. Although students have had some access to a 3D printer, only 17 of the females surveyed and 22 males had used this equipment out of 209 students that took the assessment. Based on the data from this needs assessment we made the following observations:

- Females in grades 7-10 do not feel as confident pursuing a career in the engineering field as their male peers;
- Both males and females have had limited interaction with electronics (LEGO projects, LittleBits);
- More males than females report having experience writing computer code;
- Low numbers of both males and females report having had the opportunity to use a 3D printer;
- A lower interest in how computers and electronics work was highlighted among females;
- When asked if they could be successful in an engineering career field, more than double the males responded yes indicating a very low confidence level of females; and
- Overall only a few students in our district have ever participated in a MakerSpace.

This information has been an integral part in developing a STEAM academy for required for all middle level (grades 7&8) students. 3D Printing will be incorporated into project based lessons for students in grades 3-6. Makerspaces will be created for hands on learning experiences for students in Kindergarten through second grade. Coding instruction will be given to students in 7th grade during their required STEAM academy and will also be part of the elementary computer science curriculum.

Students with Disabilities and Assistive Technology

Keyboard access may present a challenge for some students with disabilities. Such students may have assistive technology, instructional accommodations, and testing accommodations recommended on their individualized education programs (IEPs) or Section 504 accommodation plans (504 plans) to address their disability-related needs. For some students with disabilities, keyboarding may not be appropriate, even with the use of assistive technology tools. For these students, other assistive technology devices may be recommended, such as speech-to-text programs or eye-gaze technology for typing. In our district we use Dragon Speak and Learning Ally for some students.

A student with a disability requiring keyboarding accommodations and/or assistive technology is given the opportunity to participate in general instructional technology activities, including keyboarding instruction, as appropriate to his or her individual needs. During such instruction the assistive technology and/or accommodations recommended for a student with a disability must be consistently implemented in accordance with the specifications on the student's IEP or 504 plan.

SWD will continue to participate in the least restrictive environment. With access to more technology and online curriculum, more opportunities for closing achievement gaps will be attainable. Teachers will identify student strengths and weaknesses and use this information in writing IEP goals as well as progress monitoring.

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Classroom Learning Technology

7. Where appropriate, describe how the proposed technology purchases will enhance ongoing communication with parents and other stakeholders and help the district facilitate technology-based regional partnerships, including distance learning and other efforts.

(No Response)

8. Describe the district's plan to provide professional development to ensure that administrators, teachers and staff can employ the technology purchased to enhance instruction successfully.

Note: This response should be aligned and expanded upon in accordance with your district's response to Question 1 of F. Professional Development of your Instructional Technology Plan: "Please provide a summary of professional development offered to teachers and staff, for the time period covered by this plan, to support technology to enhance teaching and learning. Please include topics, audience and method of delivery within your summary."

After analyzing the needs assessment, we developed selected activities as part of our district strategy to increase access to personalized rigorous learning experiences supported by technology. In order to be effective, we understand the necessity in providing high quality professional development to our teachers. The strategy we will use in moving forward with these initiatives largely relies on the teaching that happens within classrooms. For example, in order to implement a coding program at the elementary school, our teachers will need to have time to figure out where this fits in with their curriculum. Additionally, they will need support in delivering the instruction. We will utilize our technology integrators for this work and encourage them to work side by side with our classroom teachers. In addition, we will utilize our BOCES supports to structure CSLO days that are expand on the coding topic. Another form of professional development includes turn key training led by teacher leaders in which personalized learning is modeled and supported. Our tech integrators have been trained as part of a district PL initiative with Education Elements. We will continue this work within our district by assisting in the opportunities for students to participate in blended learning. Work will build upon prior learning about design thinking as teachers will utilize this protocol in the STEAM academy.

9. Districts must contact the SUNY/CUNY teacher preparation program that supplies the largest number of the district's new teachers to request advice on innovative uses and best practices at the intersection of pedagogy and educational technology.

By checking this box, you certify that you have contacted the SUNY/CUNY teacher preparation program that supplies the largest number of your new teachers to request advice on these issues.

- 9a. Please enter the name of the SUNY or CUNY Institution that you contacted.

State University of New York at Fredonia

- 9b. Enter the primary Institution phone number.

716-673-3111

- 9c. Enter the name of the contact person with whom you consulted and/or will be collaborating with on innovative uses of technology and best practices.

Debra L. Karpinske-Keyser

10. A district whose Smart Schools Investment Plan proposes the purchase of technology devices and other hardware must account for nonpublic schools in the district.

Are there nonpublic schools within your school district?

- Yes
 No

11. Nonpublic Classroom Technology Loan Calculator
 The Smart Schools Bond Act provides that any Classroom Learning Technology purchases made using Smart Schools funds shall be lent, upon request, to nonpublic schools in the district. However, no school district shall be required to loan technology in amounts greater than the total obtained and spent on technology pursuant to the Smart Schools Bond Act and the value of such loan may not exceed the total of \$250 multiplied by the nonpublic school enrollment in the base year at the time of enactment.

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Classroom Learning Technology

See: http://www.p12.nysed.gov/mgtserv/smart_schools/docs/Smart_Schools_Bond_Act_Guidance_04.27.15_Final.pdf.

	1. Classroom Technology Sub-allocation	2. Public Enrollment (2014-15)	3. Nonpublic Enrollment (2014-15)	4. Sum of Public and Nonpublic Enrollment	5. Total Per Pupil Sub-allocation	6. Total Nonpublic Loan Amount
Calculated Nonpublic Loan Amount	(No Response)	(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

12. To ensure the sustainability of technology purchases made with Smart Schools funds, districts must demonstrate a long-term plan to maintain and replace technology purchases supported by Smart Schools Bond Act funds. This sustainability plan shall demonstrate a district's capacity to support recurring costs of use that are ineligible for Smart Schools Bond Act funding such as device maintenance, technical support, Internet and wireless fees, maintenance of hotspots, staff professional development, building maintenance and the replacement of incidental items. Further, such a sustainability plan shall include a long-term plan for the replacement of purchased devices and equipment at the end of their useful life with other funding sources.

By checking this box, you certify that the district has a sustainability plan as described above.

13. Districts must ensure that devices purchased with Smart Schools Bond funds will be distributed, prepared for use, maintained and supported appropriately. Districts must maintain detailed device inventories in accordance with generally accepted accounting principles.

By checking this box, you certify that the district has a distribution and inventory management plan and system in place.

14. If you are submitting an allocation for Classroom Learning Technology complete this table. Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Interactive Whiteboards	0
Computer Servers	0
Desktop Computers	0
Laptop Computers	118,450
Tablet Computers	15,444
Other Costs	153,406
Totals:	287,300

15. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.

Please specify in the "Item to be Purchased" field which specific expenditures and items are planned to meet the district's nonpublic loan requirement, if applicable.

NOTE: Wireless Access Points that will be loaned/purchased for nonpublic schools should ONLY be included in this category, not under School Connectivity, where public school districts would list them.

Add rows under each sub-category for additional items, as needed.

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Classroom Learning Technology

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be Purchased	Quantity	Cost per Item	Total Cost
Other Costs	STEAM-3D Printer	6	3,440	20,640
Other Costs	STEAM-Laser Engraver1	1	34,595	34,595
Other Costs	STEAM-Laser Engraver1 Exhaust	1	445	445
Other Costs	STEAM-Laser Engraver1 Delivery, Setup, Training	1	575	575
Other Costs	STEAM-3D Printer extended warranty	6	895	5,370
Other Costs	STEAM-3D Filament	2	2,400	4,800
Other Costs	Odyssey of Mind Materials	1	1,000	1,000
Other Costs	STEAM-Laser Engraver1 Fume Extraction System	1	5,917	5,917
Other Costs	STEAM-3D Printer Delivery, Setup, Training	1	585	585
Other Costs	STEAM-Laser Engraver2	1	15,404	15,404
Other Costs	STEAM-Laser Engraver2 Fume Extractor	1	3,216	3,216
Other Costs	STEAM-Vinyl Cutter incl stand and materials	1	10,228	10,228
Other Costs	STEAM-Vinyl Cutter Delivery, Setup, Training	1	1,025	1,025
Other Costs	STEAM-Vinyl Cutter, curriculum	1	1,195	1,195
Other Costs	Drone	1	1,298	1,298
Other Costs	Wireless Mic System Handheld	2	289	578
Other Costs	Wireless Mic System Lavalier	2	292	584
Other Costs	Lego Mindstorm Kit	8	412	3,296
Other Costs	Lego Education Expansion Kit	2	104	208
Tablet Computers	Student Devices-iPads	36	429	15,444
Laptop Computers	Macbook Pro Server	1	1,499	1,499
Laptop Computers	Student Devices-Grades 1-3	230	515	118,450
Other Costs	Student Devices-iPad Covers	36	20	720
Other Costs	STEAM-Portable Makerspace Carts	5	3,000	15,000
Other Costs	STEAM-Makerspace Materials	1	20,617	20,617
Other Costs	STEAM-Heat Press	1	1,580	1,580
Other Costs	STEAM-Materials for Coding	1	2,000	2,000
Other Costs	Student Device Cases	230	11	2,530

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Pre-Kindergarten Classrooms

1. Provide information regarding how and where the district is currently serving pre-kindergarten students and justify the need for additional space with enrollment projections over 3 years.

(No Response)

2. Describe the district's plan to construct, enhance or modernize education facilities to accommodate pre-kindergarten programs. Such plans must include:

- Specific descriptions of what the district intends to do to each space;
- An affirmation that pre-kindergarten classrooms will contain a minimum of 900 square feet per classroom;
- The number of classrooms involved;
- The approximate construction costs per classroom; and
- Confirmation that the space is district-owned or has a long-term lease that exceeds the probable useful life of the improvements.

(No Response)

3. Smart Schools Bond Act funds may only be used for capital construction costs. Describe the type and amount of additional funds that will be required to support ineligible ongoing costs (e.g. instruction, supplies) associated with any additional pre-kindergarten classrooms that the district plans to add.

(No Response)

4. All plans and specifications for the erection, repair, enlargement or remodeling of school buildings in any public school district in the State must be reviewed and approved by the Commissioner. Districts that plan capital projects using their Smart Schools Bond Act funds will undergo a Preliminary Review Process by the Office of Facilities Planning.

Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

Project Number
(No Response)

5. If you have made an allocation for **Pre-Kindergarten Classrooms**, complete this table. **Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.**

	Sub-Allocation
Construct Pre-K Classrooms	(No Response)
Enhance/Modernize Educational Facilities	(No Response)
Other Costs	(No Response)
Totals:	0

6. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.

Add rows under each sub-category for additional items, as needed.

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Pre-Kindergarten Classrooms

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

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Replace Transportable Classrooms

1. Describe the district’s plan to construct, enhance or modernize education facilities to provide high-quality instructional space by replacing transportable classrooms.

(No Response)

2. All plans and specifications for the erection, repair, enlargement or remodeling of school buildings in any public school district in the State must be reviewed and approved by the Commissioner. Districts that plan capital projects using their Smart Schools Bond Act funds will undergo a Preliminary Review Process by the Office of Facilities Planning.

Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

Project Number
(No Response)

3. For large projects that seek to blend Smart Schools Bond Act dollars with other funds, please note that Smart Schools Bond Act funds can be allocated on a pro rata basis depending on the number of new classrooms built that directly replace transportable classroom units.

If a district seeks to blend Smart Schools Bond Act dollars with other funds describe below what other funds are being used and what portion of the money will be Smart Schools Bond Act funds.

(No Response)

4. If you have made an allocation for **Replace Transportable Classrooms**, complete this table. Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Construct New Instructional Space	(No Response)
Enhance/Modernize Existing Instructional Space	(No Response)
Other Costs	(No Response)
Totals:	0

5. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov. Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

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High-Tech Security Features

1. Describe how you intend to use Smart Schools Bond Act funds to install high-tech security features in school buildings and on school campuses.

(No Response)

2. All plans and specifications for the erection, repair, enlargement or remodeling of school buildings in any public school district in the State must be reviewed and approved by the Commissioner. Districts that plan capital projects using their Smart Schools Bond Act funds will undergo a Preliminary Review Process by the Office of Facilities Planning.

Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

Project Number
(No Response)

3. Was your project deemed eligible for streamlined Review?

- Yes
- No

4. Include the name and license number of the architect or engineer of record.

Name	License Number
(No Response)	(No Response)

5. If you have made an allocation for **High-Tech Security Features**, complete this table. Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Capital-Intensive Security Project (Standard Review)	(No Response)
Electronic Security System	(No Response)
Entry Control System	(No Response)
Approved Door Hardening Project	(No Response)
Other Costs	(No Response)
Totals:	0

6. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov. Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

