



2015-2018

EDUCATIONAL TECHNOLOGY
STRATEGIC PLAN

Newburgh Enlarged City School District

124 Grand Street

Newburgh, New York 12550

www.newburghschools.org

It is the policy of the Newburgh Enlarged City School District not to discriminate on the basis of age, color, handicap or disability, ancestry, national origin, marital status, race, religion, sex, veteran status, or political affiliation in its educational or employment programs and activities.

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	City			Zip Code
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URL of the District Educational Technology Plan: _____

TABLE OF CONTENTS

Table of Contents	1
Introductory Materials	4
District Mission	4
District Vision	4
Introduction	4
District Profile	5
BEDS Day Enrollment 2014-2015	6
Plan Development	8
Committee Members	9
NECSD Technology Vision.....	11
NECSD Future-Ready Goals	11
Goal 1: Digital Convergence	11
Policies	11
Robust Digital Infrastructure	11
Digital Curricula	11
Goal 2: Students	11
Goal 3: Staff	13
Goal 4: Families and the Community.....	13
Recommendations.....	14
Curriculum	15
Curriculum Vision	15
Curriculum Goals	15
21 st Century Pedagogy Model	16
Curriculum Integration	17
Goal 1	17
Goal 2.....	19
Goal 3.....	19
Goal 4.....	21
Student Achievement	22
Goal.....	22
ISTE National Educational Technology Standards	24
ALIGNING CCLS AND NETS	26

Technology Delivery	40
Goal: Access and Equity	40
Parental Communications & Community Relations	43
Goal 1	44
Goal 2	45
Professional Development	46
Overview	46
Goal 1	47
Goal 2	48
INFRASTRUCTURE, Hardware, Technical Support, and Software	51
Summary	51
Mission	51
Infrastructure Needs/Technical Specification, and Design	52
Current State: Infrastructure	52
Future State: Infrastructure	53
Implementation Timeline	54
Equipment Lease Replacement Project	55
Inventory	56
IT Monitoring, Evaluation Programs, and Implementation Management	63
Overview	63
Goal 1	63
Goal 2	64
Funding and Budget	67
Appendix A	69
Appendix B	79
Appendix C	80
Computer Network Use English Version	80
Computer Network Use Spanish Version	83
Appendix D	86
Newburgh Free Library Technology Resources	86
Appendix E	88

Appendix F..... 92

Appendix G..... 94

OUR CORE VALUES

Nurturing

Empowering

Collaborative

Student-centered

Diverse

INTRODUCTORY MATERIALS

DISTRICT MISSION

The Newburgh Enlarged City School District's mission is to inspire students to become tomorrow's leaders beyond Academy Field.

DISTRICT VISION

The Newburgh Enlarged City School District's vision is that through the work of all, we will achieve inclusive excellence

INTRODUCTION

Nestled next to the Hudson River in the picturesque Hudson Valley, the district is comprised of students from the City of Newburgh, the Town of Newburgh, New Windsor and a small portion of Cornwall.

The Newburgh Enlarged City School District, located in Orange County New York is just sixty miles north of New York City and ninety miles south of Albany. With a population of just under 29,000, Newburgh is considered a small-city school district, according to New York State law.

The purpose of technology planning is to produce RESULTS rather than a plan. These results include:

- Increase student achievement
- Increase student engagement
- Support teacher effectiveness
- Build family and community engagement
- Establish learning communities
- Engage community and business members

**“THE STUDENTS OF THE NEWBURGH ENLARGED CITY SCHOOL
DISTRICT DESERVE A WORLD CLASS SCHOOL SYSTEM.”**

DR. ROBERTO PADILLA

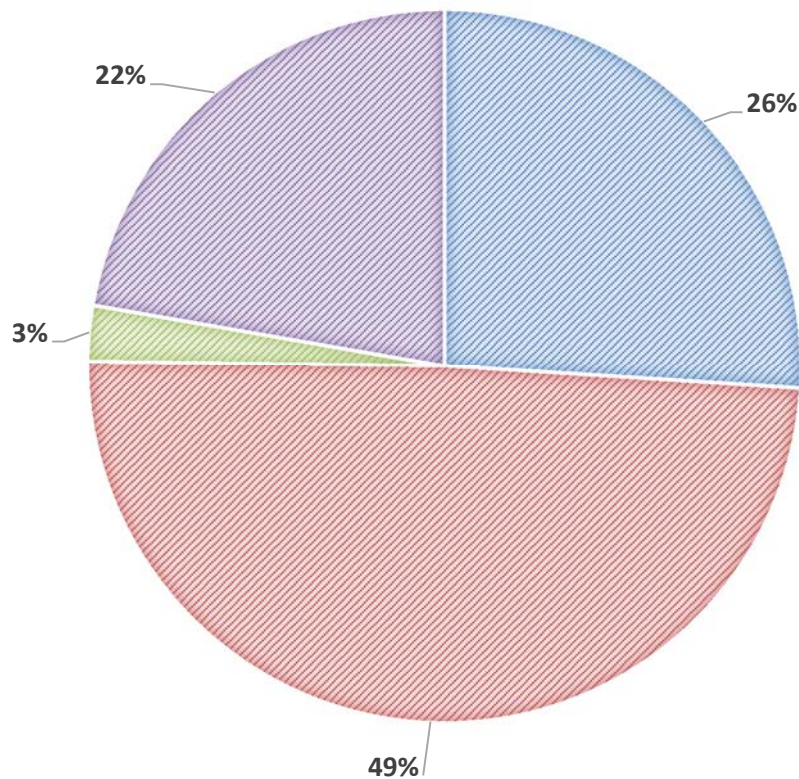
DISTRICT PROFILE

The District is comprised of thirteen schools. There are six K-5 schools, three K-8 schools, two middle schools and one high school. This sprawling school district is the tenth largest in New York with 11,601 students currently enrolled. Of those students, 1,713 are students with disabilities and 1,491 are English Language Learners.

The Newburgh Enlarged City School District (NECSD) is split almost evenly between males and females: 51% and 49%, respectively. Of those students, 25% are Black or African American; 48% are Latino, 3% are Asian/Pacific Islander, 22% are white, and 3% are Multiracial. 72% of the student population is comprised of economically disadvantaged students.

STUDENT DEMOGRAPHICS

■ *Black ■ *Hispanic ■ *Asian/Pacific Islander ■ *White



BEDS DAY ENROLLMENT 2014-2015

Student Subgroup (accountability subgroups are marked with an asterisk (*))	BEDS DAY ENROLLMENT																		
	Total (PreK- 12, UGE, UGS)	Pre- Kind er- garte n Half -day	Pre- Kin der- gart en Full- day	Kind er- garte n Half- day	Kin der- gart en Full- day	Gr ade 1	Gr ade 2	Gr ade 3	Gr ade 4	Gr ade 5	Gr ade 6	Ungra ded Eleme ntary (UGE)	Gr ade 7	Gr ade 8	Gr ade 9	Gr ade 10	Gr ade 11	Gr ade 12	Ungr aded Secon dary (UGS)
*All Students	<u>11,601</u>	<u>111</u>	<u>509</u>	<u>0</u>	<u>933</u>	<u>90</u> <u>3</u>	<u>91</u> <u>9</u>	<u>88</u> <u>3</u>	<u>78</u> <u>8</u>	<u>77</u> <u>0</u>	<u>84</u> <u>3</u>	<u>22</u>	<u>85</u> <u>4</u>	<u>79</u> <u>8</u>	<u>95</u> <u>0</u>	<u>85</u> <u>6</u>	<u>70</u> <u>8</u>	<u>72</u> <u>4</u>	<u>30</u>
Female	<u>5,633</u>	<u>55</u>	<u>257</u>	<u>0</u>	<u>440</u>	<u>45</u> <u>2</u>	<u>43</u> <u>3</u>	<u>45</u> <u>2</u>	<u>36</u> <u>2</u>	<u>35</u> <u>5</u>	<u>41</u> <u>9</u>	<u>4</u>	<u>41</u> <u>1</u>	<u>39</u> <u>6</u>	<u>46</u> <u>6</u>	<u>41</u> <u>1</u>	<u>34</u> <u>4</u>	<u>36</u> <u>3</u>	<u>13</u>
Male	<u>5,968</u>	<u>56</u>	<u>252</u>	<u>0</u>	<u>493</u>	<u>45</u> <u>1</u>	<u>48</u> <u>6</u>	<u>43</u> <u>1</u>	<u>42</u> <u>6</u>	<u>41</u> <u>5</u>	<u>42</u> <u>4</u>	<u>18</u>	<u>44</u> <u>3</u>	<u>40</u> <u>2</u>	<u>48</u> <u>4</u>	<u>44</u> <u>5</u>	<u>36</u> <u>4</u>	<u>36</u> <u>1</u>	<u>17</u>
*American Indian/Alaska Native	<u>30</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>7</u>	<u>1</u>	<u>5</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>1</u>
*Black	<u>2,937</u>	<u>25</u>	<u>111</u>	<u>0</u>	<u>206</u>	<u>21</u> <u>3</u>	<u>18</u> <u>8</u>	<u>17</u> <u>3</u>	<u>18</u> <u>8</u>	<u>19</u> <u>4</u>	<u>24</u> <u>4</u>	<u>6</u>	<u>26</u> <u>5</u>	<u>23</u> <u>5</u>	<u>24</u> <u>9</u>	<u>23</u> <u>6</u>	<u>19</u> <u>3</u>	<u>20</u> <u>1</u>	<u>10</u>
*Hispanic	<u>5,555</u>	<u>79</u>	<u>239</u>	<u>0</u>	<u>480</u>	<u>48</u> <u>4</u>	<u>47</u> <u>7</u>	<u>46</u> <u>3</u>	<u>40</u> <u>3</u>	<u>36</u> <u>0</u>	<u>37</u> <u>4</u>	<u>14</u>	<u>37</u> <u>4</u>	<u>35</u> <u>5</u>	<u>45</u> <u>7</u>	<u>38</u> <u>7</u>	<u>29</u> <u>9</u>	<u>29</u> <u>8</u>	<u>12</u>
*Asian/Pacific Islander	<u>287</u>	<u>0</u>	<u>15</u>	<u>0</u>	<u>30</u>	<u>22</u>	<u>22</u>	<u>27</u>	<u>21</u>	<u>18</u>	<u>21</u>	<u>0</u>	<u>18</u>	<u>28</u>	<u>23</u>	<u>14</u>	<u>16</u>	<u>11</u>	<u>1</u>
*White	<u>2,513</u>	<u>3</u>	<u>107</u>	<u>0</u>	<u>171</u>	<u>14</u> <u>1</u>	<u>18</u> <u>5</u>	<u>17</u> <u>6</u>	<u>16</u> <u>6</u>	<u>19</u> <u>3</u>	<u>18</u> <u>7</u>	<u>1</u>	<u>18</u> <u>7</u>	<u>17</u> <u>0</u>	<u>21</u> <u>1</u>	<u>20</u> <u>5</u>	<u>19</u> <u>4</u>	<u>21</u> <u>0</u>	<u>6</u>
*Multiracial	<u>279</u>	<u>3</u>	<u>35</u>	<u>0</u>	<u>45</u>	<u>42</u>	<u>47</u>	<u>43</u>	<u>8</u>	<u>4</u>	<u>10</u>	<u>0</u>	<u>5</u>	<u>8</u>	<u>8</u>	<u>13</u>	<u>4</u>	<u>4</u>	<u>0</u>
General Education Students	<u>9,888</u>	<u>91</u>	<u>433</u>	<u>0</u>	<u>804</u>	<u>79</u> <u>0</u>	<u>78</u> <u>5</u>	<u>74</u> <u>9</u>	<u>65</u> <u>4</u>	<u>64</u> <u>2</u>	<u>69</u> <u>2</u>	<u>0</u>	<u>74</u> <u>2</u>	<u>66</u> <u>8</u>	<u>79</u> <u>7</u>	<u>75</u> <u>2</u>	<u>62</u> <u>2</u>	<u>66</u> <u>7</u>	<u>0</u>
*Students with Disabilities	<u>1,713</u>	<u>20</u>	<u>76</u>	<u>0</u>	<u>129</u>	<u>11</u> <u>3</u>	<u>13</u> <u>4</u>	<u>13</u> <u>4</u>	<u>13</u> <u>4</u>	<u>12</u> <u>8</u>	<u>15</u> <u>1</u>	<u>22</u>	<u>11</u> <u>2</u>	<u>13</u> <u>0</u>	<u>15</u> <u>3</u>	<u>10</u> <u>4</u>	<u>86</u>	<u>57</u>	<u>30</u>
Former Students with Disabilities	<u>118</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>43</u>	<u>25</u>	<u>6</u>	<u>6</u>	<u>7</u>	<u>6</u>	<u>3</u>	<u>0</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>0</u>

Not Limited English Proficient	<u>10,110</u>	<u>111</u>	<u>509</u>	<u>0</u>	<u>707</u>	<u>70</u> <u>3</u>	<u>73</u> <u>4</u>	<u>71</u> <u>7</u>	<u>64</u> <u>9</u>	<u>65</u> <u>6</u>	<u>75</u> <u>1</u>	<u>16</u>	<u>78</u> <u>4</u>	<u>72</u> <u>5</u>	<u>86</u> <u>1</u>	<u>80</u> <u>3</u>	<u>67</u> <u>3</u>	<u>69</u> <u>0</u>	<u>21</u>
*Limited English Proficient	<u>1,491</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>226</u>	<u>20</u> <u>0</u>	<u>18</u> <u>5</u>	<u>16</u> <u>6</u>	<u>13</u> <u>9</u>	<u>11</u> <u>4</u>	<u>92</u>	<u>6</u>	<u>70</u>	<u>73</u>	<u>89</u>	<u>53</u>	<u>35</u>	<u>34</u>	<u>9</u>
Formerly Limited English Proficient	<u>505</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>13</u>	<u>65</u>	<u>89</u>	<u>50</u>	<u>52</u>	<u>40</u>	<u>0</u>	<u>56</u>	<u>27</u>	<u>41</u>	<u>42</u>	<u>18</u>	<u>12</u>	<u>0</u>
*Economically Disadvantaged	<u>8,560</u>	<u>5</u>	<u>304</u>	<u>0</u>	<u>730</u>	<u>75</u> <u>2</u>	<u>70</u> <u>9</u>	<u>68</u> <u>4</u>	<u>61</u> <u>8</u>	<u>56</u> <u>5</u>	<u>63</u> <u>0</u>	<u>20</u>	<u>63</u> <u>7</u>	<u>59</u> <u>6</u>	<u>70</u> <u>9</u>	<u>62</u> <u>9</u>	<u>48</u> <u>0</u>	<u>46</u> <u>5</u>	<u>27</u>
Not Economically Disadvantaged	<u>3,041</u>	<u>106</u>	<u>205</u>	<u>0</u>	<u>203</u>	<u>15</u> <u>1</u>	<u>21</u> <u>0</u>	<u>19</u> <u>9</u>	<u>17</u> <u>0</u>	<u>20</u> <u>5</u>	<u>21</u> <u>3</u>	<u>2</u>	<u>21</u> <u>7</u>	<u>20</u> <u>2</u>	<u>24</u> <u>1</u>	<u>22</u> <u>7</u>	<u>22</u> <u>8</u>	<u>25</u> <u>9</u>	<u>3</u>
Migrant	<u>10</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>
Not Migrant	<u>11,591</u>	<u>111</u>	<u>509</u>	<u>0</u>	<u>932</u>	<u>90</u> <u>3</u>	<u>91</u> <u>9</u>	<u>88</u> <u>3</u>	<u>78</u> <u>6</u>	<u>76</u> <u>8</u>	<u>84</u> <u>2</u>	<u>22</u>	<u>85</u> <u>3</u>	<u>79</u> <u>8</u>	<u>94</u> <u>9</u>	<u>85</u> <u>5</u>	<u>70</u> <u>8</u>	<u>72</u> <u>3</u>	<u>30</u>

PLAN DEVELOPMENT

The Long Range Strategic Plan for Educational Technology 2015-2018 (LRSPT) was developed by conducting a comprehensive needs analysis of NECSD's current technology using The Digital Learning Readiness Survey tool provided by the United States Department of Education through the Future Ready Schools Initiative. Key stakeholders - administrative staff, teachers, students, and the community at-large - were included in the data-gathering research activities conducted during spring 2014 (Insight Survey) and throughout the 2014-2015 school year.

A multi-phase procedure using guiding questions was adopted to identify how Newburgh can make our vision a reality. While our primary focus is on student learning, through our electronic learning community, we will provide significant benefits to all members of our community, including:

- Students
- Teachers
- Administrators
- Support Staff
- Parents
- Public Library
- Community Members

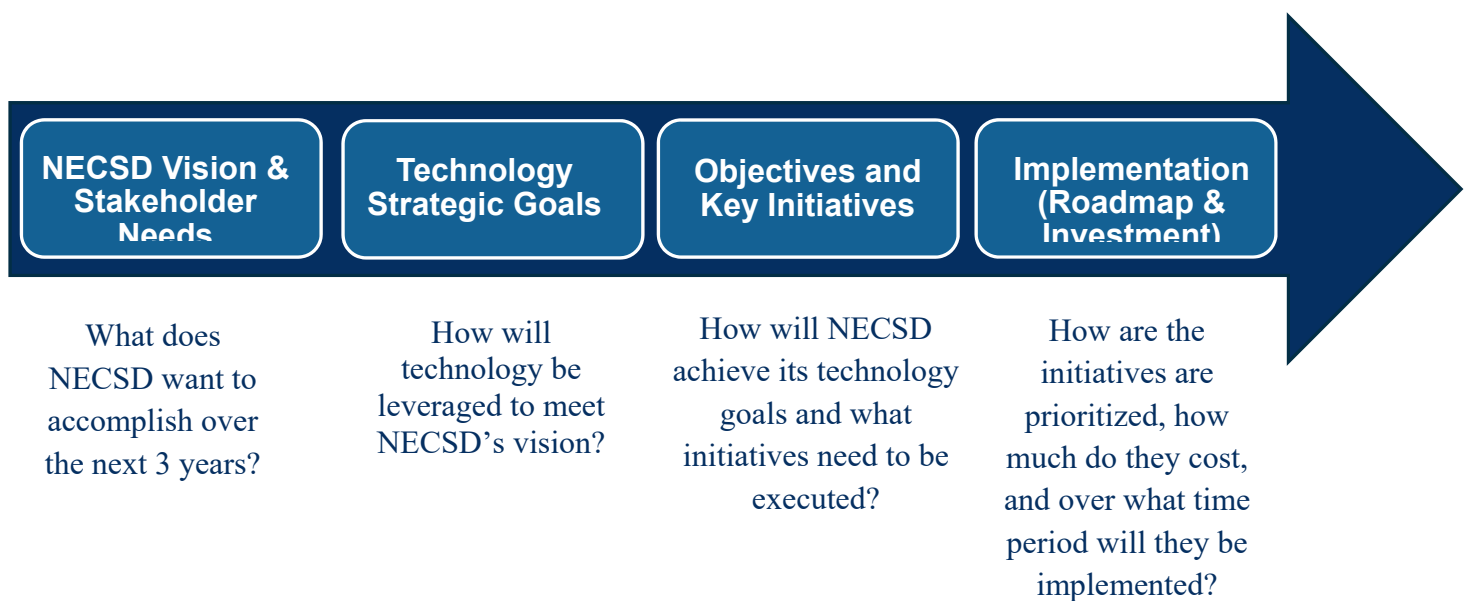


Figure 1. This figure illustrates the multi-phase process with guiding questions used in planning.

COMMITTEE MEMBERS

The Newburgh Enlarged City School District would like to thank all those who contributed data or feedback in the development of the technology plan. All stakeholders throughout the year are included in the list below.

TEACHERS AND SUPPORT STAFF			
Name	Title	Building	Level/Dept.
Lisa Yonnone	SPED Teacher	HMS	Middle
Sabrina Dolfinger	SPED Teacher	HOH	Elementary
Christine McCartney	Classroom Teacher-English	NFA Main	High School
Jennifer Laudiero	Classroom Teacher-Grade 6	HMS	Middle
Kelly Garcia	Classroom Teacher-Grade 4	HOH	Elementary
Andrea Merrill	Computer Lab Teacher	NW	Elementary
Elizabeth Cappello	Computer Lab Teacher	TH	Middle
Kylene D'Alfonso	Italian	HMS	Middle
Pamela Schembri	Librarian	NFA North	High School
INFORMATION AND DATA			
Sal Vasile	Chief Information Officer	District	Data Technology
NETWORK INFRASTRUCTURE			
Matt Quick	Network Specialist	District	IT Network Technology
Thomas Durante	Digital Video Specialist	District	Video Technology
Barb Tudor	Help Desk Coordinator	District	Technology
DIRECTORS, SUPERVISORS & BUILDING ADMINISTRATORS			
Chastity Beato	Supervisor	District	Language Acquisition
Chuck Thomas	Director	NFL	Public Library
Joseph Catania	Instructional Technology Spec.	District	
Ebony Green	Principal	NW	K-5
Janet Orwick	Supervisor	NFA Main	STEM-Secondary
John Etri	Director	NFA Main	CTE
Octobre-Cooper, Rhode	Supervisor	NFA Main	Humanities-Secondary
Rothman, Kevin	Excelsior Academy Principal	NFA North	P-Tech
Theresa Brown	Director	District	Fine & Performing Arts
Sonya Dixon	Grants Specialist	District	Grants
Timothy Bohlke	Asst. Principal	HMS	6-8
PARENTS, STUDENTS, COMMUNITY MEMBERS AND EXPERTS			
Mr. Anjorin	Parent	P-Tech	
Susan Manning	Parent	Vails Gate	
Babatunde Anjorin	Student	NFA N P-Tech	
Denise Bell	Parent	Balmville	10 th Grade
David Orschel	Account Technology Strategist	Microsoft Corporation	Volunteer

		Education Northeast, US Public Sector	
Pratik Chanda	Strategic Accounts Manager	Microsoft Education - US Public Sector	Volunteer
James Treloar	Technology Integration Specialist	Orange-Ulster BOCES Model Schools	Consultant
Joe Ciccarelli	Educational Sales Director	Core BTS, Inc.	Volunteer
Michael Mara	Managing Architect	Core BTS	Volunteer



NECSD TECHNOLOGY VISION

Leveraging technology to foster creativity, personalize learning, and surmount barriers, all students will attain the skills needed to navigate the digital world beyond Academy Field.

NECSD TECHNOLOGY MISSION

Through the meaningful integration of technology in all classrooms, students will possess the 21st-century skills needed to succeed as outstanding citizens and leaders.

NECSD FUTURE-READY GOALS

GOAL 1: DIGITAL CONVERGENCE

An overarching goal of our Digital Convergence Initiative is to maximize the learning potential of all students in an effort to prepare them for a successful future as 21st century citizens. The plan is to bring together different technologies – mobile devices, interactive whiteboards, streaming media, and digital content – to enhance student learning, by increasing student engagement and student technology literacy.

POLICIES

Policies established in this plan will reflect Newburgh's transition to 21st century teaching and learning.

ROBUST DIGITAL INFRASTRUCTURE

To provide access to all scholars, the District seeks to enhance and expand advanced infrastructure systems for communication, computing, and networking throughout Newburgh Enlarged City School District. The establishment of a robust infrastructure will provide enhanced connectivity for students, staff, and parents; increased security; and continuity of operations in the event of an emergency

DIGITAL CURRICULA

Digital curricula maintain cost-effective, current and up-to-date information and provides universal access for all. Moving towards a digital curriculum will allow our district provide more flexibility in how students can take courses and classes.

GOAL 2: STUDENTS

Through the meaningful integration of technology in all levels of curriculum, instruction and assessment, the Newburgh learning community will engage in deep learning and acquire 21st century skills necessary to become leaders beyond Academy Field.

Many advanced technologies will be introduced within the district that will give creative teachers many more options to enrich the curriculum, open windows to new educational experiences, and engage students in exciting

new ways. While teachers will always be our “best App”, technology-based instructional tools are valuable for infusing real-world learning experiences into the daily curriculum, an important part of the strategy articulated in Vision 2020.

KEY TECHNOLOGY-BASED INSTRUCTIONAL TOOLS:

MICROSOFT OFFICE 365

Office 365 for Education enables students to collaborate with peers and access homework and resources from any internet-capable device during and beyond the school day. Teachers and students can create websites to organize and showcase learning. High school students can also create independent research and visual arts portfolios online to share with potential colleges and employers. This productivity tool is a step towards universal access for all scholars.

BYOD (BRING YOUR OWN DEVICE)

In the future, after careful planning and preparation a BYOD policy will become a reality in Newburgh. A bring your own device (BYOD) policy would allow students and staff to use personal devices for NECSD–approved activities and connect to the Internet for approved instructional activities. Students and staff will reap a number of benefits, including ease in completing assignments and accessing online resources that enhance classroom content; an increase in student engagement, autonomy, and responsible use of technology in school; and a decreased need for printed instructional materials.

ADAPTIVE TECHNOLOGIES

Adaptive technologies can be transformative for many NECSD students who have developmental disabilities or other special needs. Technologies can be used both for accessing curriculum and supporting communications and to help students thrive in the least restrictive educational environment. Teachers will match any of a wide variety of technology tools to accommodate individual needs.

In Newburgh our teachers are in a range of special education programs, with most in special class and co-teaching models. With the special education professional in the classroom there are additional opportunities for targeted instruction and the development of strategies to assist all students in learning. There has been some instructional support for special education students in the area of technology. Some inroads have been made with making technology accessible to special education students such as providing Microsoft One Note, apps to strengthen understanding, collection of data, and the development of content. Equitable access can be time and place for our students. Many of our resources and instruction can be accessed in the cloud through Microsoft Office 365 making it flexible.

We enlist the services of Orange Community College to provide assistive technology assessments for our students with disabilities and those on a 504. Additional relationships have begun with AT providers who have extensive knowledge with special education solutions related to specific disabilities in learning and autism. General and special education teachers work together to modify curriculum and develop instructional strategies for success based on individuals. The assessment will address these issues and make recommendations. This plan gives us the ability to consider almost any device as we rebuild wireless to an enterprise level and improve bandwidth. Many of these opportunities require access to different web based resources. We have begun to

utilize Bookshare which gives our learning disabled and visually impaired students access to digital content through the web. Audio books, online courses, and iPad technology are all connected to the web. Our infrastructure plan will build capacity to give our students great access to what is needed rather than what we can accommodate. Our intent is to move the obstacles out of the way so we can make informed decisions without roadblocks.

NAVIANCE

Naviance is already being used to empower middle and high school students to take ownership of their own learning, by choosing a direction they want to follow and creating a plan. Students, school counselors, and parents can access the web-based platform to identify colleges and careers that align with each student's interests and goals. Self-discovery activities and lessons help students navigate their personal, career and academic goals.

GOAL 3: STAFF

ENGAGING INSTRUCTION

The Newburgh Enlarged City School District Plans to develop a 21st Century setting where educators will deliver technology-rich instruction. This will support evolving student learning and will include online and connected learning. Technology-rich teaching practices will ultimately lead to improvements in student success and create broader understanding of the skills that comprise success in a digital age.

PROFESSIONAL LEARNING

To accomplish this goal, NECSD will provide ongoing staff development and coaching to encourage and support professional competencies for 21st century skills & deeper learning. By expanding access to high-quality, ongoing, job-embedded opportunities for professional growth for teachers, administrators, and other education professionals, we will offer teachers and administrators vast new opportunities to collaborate, learn, share, and produce best practices with colleagues in school buildings across the country.

GOAL 4: FAMILIES AND THE COMMUNITY

The District is dedicated to seeking out and fostering external partnerships that support technology enhancements. A world-class educational system cultivates the full participation, support and resources of families and community partners.

As it relates to technology, NECSD will seek community partnerships that include formal and informal local and global community connections, collaborative projects, and relationships that advance the school's learning goals. Digital communications, online communities, social media, and digital learning environments often serve as connectors for these partnerships.

A goal of this initiative will be to develop and sustain educational programs supported by advanced technology systems provided in conjunction with community and government partners.

RECOMMENDATIONS

- Explore low-cost, needs-based, broadband options that may be available for students who qualify for Free and Reduced Lunch. Raise public awareness about these broadband options for home by including them in school information. Consider a pilot with a reduced-cost device in perhaps 100 homes in one school to assess feasibility and cost/benefit of this option. Explore options with local cable companies and telecomm providers as well.
- Create the expectation that teachers maintain a website based on a given template. At a minimum, it can include a summary of current activities and goals and point to the Parent Portal for more detailed information on student performance. Ensure that the information on the parent portal is kept up to date. Links to instructional support materials can also be included. Include information about Parent Portal in various communications with parents.

CURRICULUM

CURRICULUM VISION

Through the meaningful integration of technology in all levels of curriculum, instruction and assessment, the Newburgh learning community will engage in deep learning and acquire 21st century skills necessary to become leaders beyond Academy Field.

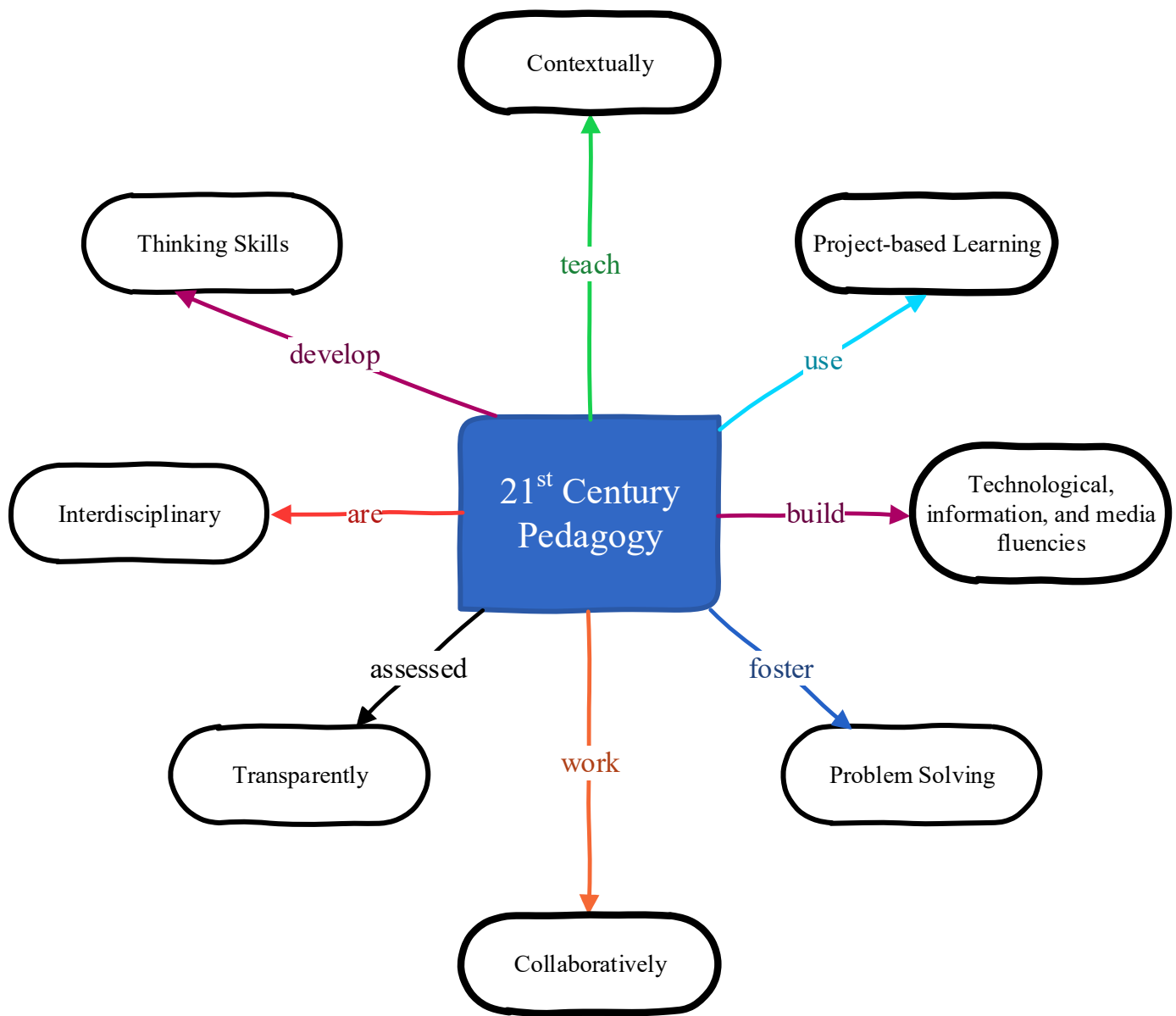
CURRICULUM GOALS

By the 2018 school year, the Newburgh Enlarged City School District will improve student academic achievement by utilizing research-based strategies to integrate technology into curriculum, instruction and assessment. Technology will be used to support instruction, reinforce student skills, provide alternative instructional methodologies for teaching and learning, and foster internet safety and digital literacy. This will ensure that the students acquire the 21st skills necessary to meet both national and New York State standards.

The Curriculum and Instruction section focuses on the role technology resources play in enhancing curriculum delivery and assessment of student achievement. In an effort to support the implementation of the district's Common Core Learning Standards and the integration of technology into the curriculum, building ***Instructional Technology Facilitators*** will work closely with the Department of ***Curriculum and Instruction*** to develop the curriculum resources and related training materials for use throughout the district.

Technology resources support the delivery of instruction according to individual student learning needs and assist teachers with the development and delivery of assessments, and the organization and analysis of assessment data. Instructional management tools are required to link standards, content, and methodology with assessments, teaching and learning resources, and student academic achievement.

21ST CENTURY PEDAGOGY MODEL



CURRICULUM INTEGRATION

Goals and strategies, aligned with challenging state and national standards, for using telecommunications and technology to improve teaching and learning.

GOAL 1

Adopt, integrate, implement, and assess a technology guidance document across all grades and content areas. Analyze and adapt CCLS curriculum to identify where technology tools, skills, and/or resources are appropriate and/or required.

Actions needed to achieve goal	Year 1	Year 2	Year 3
A formal plan to integrate technology competencies into the curriculum must exist.	Elevate technology integration as a priority in curriculum development for content areas.	Create a formal curriculum document that displays grade level scope and sequence technology integration strategies that are aligned with state and/or national technology standards.	
The NECSD Director of Technology will convene a curriculum focus group consisting of NECSD stakeholders to identify and adopt 21st Century technology competencies for all grade levels, including administrators, library media specialists, instructional coaches, content-area teachers, and technology teachers. The group will consult ISTE standards and AASL Standards as starting points: http://www.iste.org/standards/iste-standards and http://www.ala.org/aasl/standards-guidelines/learning-standards	Convene focus group which studies established national standards and best practices. Create a formal curriculum document that displays grade level scope and sequence technology integration strategies that are aligned with state and/or national technology standards.	Implement technology guidance document, refining in accordance with teacher feedback and student performance.	Revisit initial technology guidance document and revise based on new technology, devices and software.
The Director of Technology will monitor activities related to the creation of the technology guidance	Focus group will develop benchmarks to assure	As technologies are acquired, provide ongoing training to	Focus group will work with technology coaches

Actions needed to achieve goal	Year 1	Year 2	Year 3
document, secure necessary resources and analyze the implementation of this document. This will be accomplished by assessing student academic achievement data (including NYS test data and other performance measures relative to student growth) to identify potential patterns of academic success as related to specific technology applications.	compliance with academic technology standards and student use of technology; create a list of hardware, software, peripherals and other resources necessary to implement new technologies.	teachers and begin use in academic instruction and assessment; gather data to inform instruction. Support instruction through strategic use of technology coaches in all buildings.	to monitor needs and support teachers. Collect and use data to revise technology, assessment and instruction to improve student outcomes.
Review the technology guidance document for all grades and content areas to determine where technology can be best integrated into the curriculum in alignment with the CCLS.	Focus group will conduct a needs assessment to identify tools and resources required to align technology standards to the CCLS and create an alignment plan across all grades and content areas.	Focus group will make recommendations for the formation of sub-committees to create an array of CCLS project-based assignments and resources. These projects/resources will be hosted on the NECSD technology portal that is accessible to all parties.	The focus group will assess implementation and alignment to CCLS, using a variety of resources, including: walk-through reports, observations, project-based performance assessments, etc.
Create technology related extra-curricular groups/enrichment opportunities for students	Identify the technology enrichment opportunities currently available in the district and identify additional opportunities for our students.	District will create technology related enrichment opportunities for students at each campus. District will secure funding to pay educator stipends to facilitate activities.	Facilitators will monitor the efficacy, continuity and growth of programs based on student interest and identify opportunities for expansion.

GOAL 2

Create a structure that ensures progress monitoring and accountability as technology is integrated into curriculum, instruction and assessment.

Actions needed to achieve goal:	Year 1	Year 2	Year 3
The district will create the necessary administrative and support positions to facilitate the work outlined in this plan, including a Director of Technology, three supervisors (Infrastructure, Data and Technology, and Instruction) and school-based technology coaches and assistants.	Identify the roles and responsibilities of the newly created positions and recruit appropriate personnel for each.	Refine job descriptions and assignments according to evolving needs.	Continue to refine job descriptions and assignments according to evolving needs. Determine whether further staff or reduction of staff is necessary.

GOAL 3

Adopt a facilitator model for technology teachers. A barrier to the effective integration of technology into the curriculum is a lack of instructional technology staff to assist teachers in finding applicable uses of technology and modeling technology integration strategies

Actions needed to achieve goal:	Year 1	Year 2	Year 3
Abandon the more outdated technical requirements and prep based schedule of the school based Computer Lab Teacher with a renewed focus and emphasis on the pedagogical use of technology in the classroom. The current model of the Computer Lab Teacher has limited the ability of the students to master necessary information technology, communications, and digital literacy skills necessary in the 21st century workplace. Ensure that the technology coaches have manageable coach to teacher and coach to student ratios.	Research and select a facilitator model that best suits the needs of the NECSD. Create an action plan with specific goals, dates and benchmarks. To support this initiative, technology coaches will engage in PD that meets each individual's needs with relevant training, are	Monitor the effectiveness of the technology facilitator model See Appendix E	Begin the implementation of the action plan by ensuring that the mainstreaming teachers are implementing the plan and are practicing and beginning to master technology skills in the content areas.

Actions needed to achieve goal:	Year 1	Year 2	Year 3
	<p>implemented regularly, and are continually updated to reflect current trends and technologies.</p> <p>See Appendix F for Job Description</p>		

GOAL 4

Formulate a plan to ensure that teachers are able to integrate digital citizenship into curriculum across grade levels.

Steps:	Year 1	Year 2	Year 3
Provide digital citizenship training to all staff members.	Collectively define digital citizenship and its implication for all members of the NECSD community; provide professional development in digital citizenship	Evaluate teacher understanding regarding digital citizenship. Review trainings and revise as necessary	Review training and revise as necessary
Provide teachers with the necessary support that they will need to teach digital citizenship.	Provide teachers with a district-standard curriculum materials in digital citizenship	Continue to assure support and invite feedback to make improvements to materials as necessary	Continue to assure support and invite feedback to make improvements to materials as necessary; adapt for new technologies
Bring in community members to speak with faculty and students about internet safety.	Solicit speakers for faculty meetings, staff instruction and professional development, as well as academic purposes, in topics related to digital citizenship	Solicit speakers for faculty meetings, staff instruction and professional development, as well as academic purposes, in topics related to digital citizenship	Solicit speakers for faculty meetings, staff instruction and professional development, as well as academic purposes, in topics related to digital citizenship

STUDENT ACHIEVEMENT

Strategies that are based on research and that integrate technology into curricula and instruction for purposes of improving student academic achievement and a timeline for that integration.

GOAL

Adopt, integrate, implement, and assess a K-12 technology scope and sequence that results in weaving 21st Century Information, Communication, and Technology (ICT) literacy skills across all content areas.

Initiative:	PreK-12 Integrated Information Literacy & Technology Competencies
Rationale	For the majority of students, their current exposure to technology resources, digital content, research skills, and ethical practice is not sufficient to ensure that they are developing necessary 21st Century Literacy Skills.

Leadership	Curriculum and Technology leadership	Key Performance Indicator(s):	<ol style="list-style-type: none"> 1. Develop and adopt a searchable, web-based collection of PreK-12 information literacy and technology competencies (ICT). 2. Identify strategies for introducing, practicing, and demonstrating mastery of competencies across all content areas.
Responsibility:	Educators, school board members, parents, students, Technology administrators, and Curriculum and Instruction Leadership.		

Actions needed to achieve goal:		Timeline		
		Year 1	Year 2	Year 3
3	Convene a group of NECSD educators facilitated by Curriculum and Instruction leadership and Instructional Technology Leadership. The committee must include representation from all grade levels and all content areas. The primary purpose of this group is to identify and adopt information literacy and technology competencies for grades PreK-12. Participants should include master teachers at all levels, involving both educators who do and those who do not use technology broadly to support, enhance instruction, and ensure a balanced and realistic result. Include library media specialist and School Based Technology Facilitators as well as classroom teachers.	X	X	
4	Define above group as a Professional Learning Community (PLC) with a specific task and learning outcomes, and provide staff involved with professional development hours for their contribution to this process.	X	X	X
5	Consult the NETS•S (2007 version) available at http://www.iste.org/docs/pdfs/20-14_ISTE_Standards-S_PDF.pdf as a starting point and adapt/revise as appropriate. Using existing NECSD curriculum guides as a foundation, develop a comprehensive K-12 Information and Communication (ICT) Literacy scope and sequence to guide Technology Facilitators, library media staff, ELA, and content teachers at all levels with developing 21st Century learners.	X	X	
6	Sub-divide into groups by instructional levels (early elementary PreK-2, elementary grades 3-5, middle school grades 6-8, and high school grades 9-12) and	X	X	

Actions needed to achieve goal:		Timeline		
		Yr. 1	Yr.2	Year 3
11	Following the adoption of a technology scope and sequence, integrate those skills into the NECSD curriculum such that students are systematically introduced to technology tools for learning and expected to use them as appropriate. Identify specific skills, including keyboarding, that will be taught during computer classes and then practiced and mastered in the content areas.	X	X	
12	Continue the process of researching best practice for integrating the technology competencies into content areas, beginning with NECSD successful practices. Include opportunities to introduce (frequently in a group computer lab activity), practice (typically in daily instruction), and show mastery of (demonstrated in an individual student project or group culminating event) each technology competency.		X	X
13	Research and select a tool/system to monitor the progress of individual student mastery of the technology competencies from -kindergarten through grade 12. Investigate the options within the SIS to track this information or low cost/no cost options		X	X
14	Implement annual assessments of student technology competencies and staff technology proficiencies.			X
15	Document yearly growth of stakeholder results from baseline assessment results.			X
16	Offer a diverse array of professional development options to support the attainment of the NETS for Teachers and Administrators competencies by all staff. Provide opportunities for staff, including teachers, administrators, and support personnel, to engage in technology integration focused staff development opportunities. Use NETS for Coaches with building Technology Facilitators and other instructional coaches.	X	X	X
	review the downloadable PDF files of the NETS•S Profiles and Essential Conditions at http://www.iste.org/standards/standards-old/standards-for-students .			
7	Formally adopt and/or adapt the NETS•S standards and identify tools and strategies to enable NECSD staff to understand the standards and report on how students are demonstrating them through a portfolio or performance evaluation system.	X	X	
8	Identify the level of classroom technology tools and resources necessary to implement the ICT literacy scope and sequence systemically across NECSD.	X	X	
9	Following formal adoption, disseminate the district-wide foundation level expectations for student technology competencies and staff technology proficiencies.		X	X
10	Create a standard set of expectations regarding school-level integration of technology into the curriculum and student mastery of technology competencies.	X	X	X

ISTE NATIONAL EDUCATIONAL TECHNOLOGY STANDARDS

The National Educational Technology Standards (NETS) are a set of standards published by the International Society for Technology in Education (ISTE) for the purpose of leveraging the use of technology in K-12 education to enable students to learn effectively and live productively in an increasingly digital society. [1]

NETS·S STUDENT PROFILE

The NETS·S describes a profile for students in each grade group¹ portraying the skills which the students should have mastered by the end of that period. This section provides a summary of that profile. The scope and sequence for teaching these skills is detailed in the, Integrating ISTE's National Educational Technology Competencies for Students by Grade Level.

PRIMARY (GRADES K-2)

By the end of grade two, students will have mastered the following technology competencies:

- Turn the computer on and off properly, and use input and output devices such as mouse, keyboard, and printer.
- Demonstrate and discuss responsible use of technology using appropriate terminology.
- Demonstrate socially responsible behavior when using technology.
- Navigate appropriate software and websites.
- Use technology when working in groups to gather information and communicate with others.
- Use technology resources (drawing tools, writing tools, and digital cameras) for problem-solving, illustrating, and communicating.

ELEMENTARY SCHOOL (GRADES 3-5)

By the end of grade five, students will have mastered the following technology competencies:

- Develop keyboarding skills.
- Discuss the advantages and disadvantages of technology and issues related to its responsible use.
- Use multimedia tools (including digital and video cameras, scanners, word processing tools, and presentation software) for publishing and presentations.
- Begin to use email for collaborative projects.
- Select the appropriate tool for a specific task.

¹ NETS·S Student Profile. (<http://www.iste.org/standards/nets-for-students/nets-for-students-2007-profiles.aspx>)

MIDDLE SCHOOL (GRADES 6-8)

By the end of grade eight, students will have mastered the following technology competencies:

- Use technology tools (graphing calculators, digital probes) for data collection and analyze this data in a spreadsheet.
- Use productivity/multimedia tools and telecommunications for global collaboration projects.
- Create quality word processing documents and presentations for class projects.
- Demonstrate a basic understanding of how computers and networking systems work.

HIGH SCHOOL (GRADES 9-12)

By the end of high school, students will have mastered the following technology competencies:

- Effectively participate in distance learning courses using discussion boards, video-conferencing, blogging, chatrooms, etc.
- Use technology for communicating personal and professional information, including word processing, spreadsheet, database, and presentation tools.
- Use multimedia and software to create and edit images, video, and audio files.
- Recognize functionality of emerging technologies and how to best integrate it into planned tasks.
- Demonstrate responsible and ethical use of technology and social networking.

ALIGNING CCLS AND NETS

This section provides NECSD educators with a table that aligns many of the English Language Arts Common Core Learning Standards (CCLS) with many of the National Education Technology Standards for Students (NETS•S) for grades Kindergarten through twelve.

In the Common Core Learning Standards (CCLS) column, the standards are listed by grade level with the CCLS number following each. The numbers follow a consistent labeling structure, each has 3 components: 1) the area, 2) the grade level, and 3) the standard number. For example, W.K.3 represents Writing – Kindergarten – Standard 3. The areas found in the table include the following:

- W = Writing
- RI = Reading: Informational Text
- SL = Speaking & Listening
- RH = Literacy in History/Social Studies
- WHST = Writing in History/Social Studies, Science, & Technical Subjects

For a few of the standards, the phrase (greater detail provided) identifies standards that have detailed bulleted lists to accompany the standard. These can be easily located on the CCSL website at:

<http://www.corestandards.org/the-standards/english-language-arts-standards>.

It is expected that this section of the document will eventually become a web-based, dynamic, and ever-growing resource where teachers can continue to add technology integration activities and accompanying Buffalo instructional technology resources.

It is expected that this section of the document will eventually become a web-based, dynamic, and ever-growing resource where teachers can continue to add technology integration activities and accompanying Newburgh instructional technology resources.

PRIMARY (GRADES K-2)

Common Core Learning Standards (CCLS)	Representative Technology Integration Activities	NETS•S
<p>K – Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. (W.K.3)</p> <p>1 – Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure. (W.1.3)</p> <p>2 – Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure. (W.2.3)</p>	<p>➤ Students use drawing software to create a picture that tells a story, and summarize in words, sentences, or paragraph.</p>	<p>➤ Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. (1)</p>
<p>K – With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.K.6)</p> <p>1– With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.1.6)</p> <p>2– With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.2.6)</p>	<p>➤ Student use presentation software to create a digital story.</p>	<p>➤ Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. (1)</p> <p>➤ Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. (2)</p>

Common Core Learning Standards (CCLS)	Representative Technology Integration Activities	NETS•S
<p>K – With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.K.6)</p> <p>1– With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.1.6)</p> <p>2– With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.2.6)</p>	<ul style="list-style-type: none"> ➤ Students use a graphic organizer to show families of animals or all of the words derived from a root word. ➤ Students use a graphic organizer to create a “lifecycle” or timeline. (e.g., Inspiration, Kidspiration, TimeLiner) 	<ul style="list-style-type: none"> ➤ Students apply digital tools to gather, evaluate, and use information. (3) ➤ Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. (4)
<p>K – NA: begins in Grade 1</p> <p>1 Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text. (RI.1.6)</p> <p>2- Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently. (RI.2.6)</p> <p>K-Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (W.K.7)</p> <p>1-Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions). (W.1.7)</p> <p>2- Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). (W.2.7)</p> <p>K – With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. (W.K.8)</p> <p>1-With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. (W.1.8)</p>	<ul style="list-style-type: none"> ➤ Students identify keywords for researching a topic, and practice taking notes and citing sources in order to offer a solution in presentation format. ➤ Students participate in a scavenger hunt on a designated website to gather information. (e.g., NetTrekker). 	<ul style="list-style-type: none"> ➤ Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. (1) ➤ Students apply digital tools to gather, evaluate, and use information. (3) ➤ Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. (4)

Common Core Learning Standards (CCLS)	Representative Technology Integration Activities	NETS•S
<p>2-Recall information from experiences or gather information from provided sources to answer a question. (W.2.8)</p> <p>K – With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. (W.K.5)</p>		
<p>K – With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. (W.K.5)</p> <p>1– With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed. (W.1.5)</p> <p>2– With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing. (W.2.5)</p> <p>K – With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.K.6)</p> <p>1– With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.1.6)</p> <p>2– With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.2.6)</p>	<ul style="list-style-type: none"> ➤ Students participate in a global collaboration project, communicating with students from other countries and sharing ideas. (e.g., ePals, Flat Classroom) ➤ Students work in groups using a collaborative website to create a poster or digital story. 	<ul style="list-style-type: none"> ➤ Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. (2) ➤ Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. (5)

Common Core Learning Standards (CCLS)	Representative Technology Integration Activities	NETS•S
<p>K – With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.K.6)</p> <p>1– With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.1.6)</p> <p>2– With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.2.6)</p>	<ul style="list-style-type: none"> ➤ Students show respect for peers in social networking. ➤ Students create posters about internet safety and cyberbullying. ➤ Students create posters showing an understanding of ownership. 	<ul style="list-style-type: none"> ➤ Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. (5)
<p>K – With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.K.6)</p> <p>1– With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.1.6)</p> <p>2– With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (W.2.6)</p> <p>K – With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. (W.K.8)</p> <p>1– With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. (W.1.8)</p> <p>2– Recall information from experiences or gather information from provided sources to answer a question. (W.2.8)</p>	<ul style="list-style-type: none"> ➤ Students participate in a curriculum-based webquest. ➤ Students participate in a web based scavenger hunt to gather information. ➤ Students use curriculum-related learning software. ➤ Students choose between drawing software and presentation software for telling a story. 	<ul style="list-style-type: none"> ➤ Students demonstrate a sound understanding of technology concepts, systems, and operations. (6)
<p>Foundational to all standards.</p>	<ul style="list-style-type: none"> ➤ Operational concepts are addressed in the context of all activities. 	<ul style="list-style-type: none"> ➤ Students demonstrate a sound understanding of technology concepts, systems, and operations. (6)

ELEMENTARY SCHOOL (GRADES 3-5)

Common Core Learning Standards (CCLS)	Representative Technology Integration Activities	NETS•S
<p>3 – Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. (greater detail provided) (W.3.3)</p> <p>4 – Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. (greater detail provided) (W.4.3)</p> <p>5 – Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. (greater detail provided) (W.5.3)</p> <p>3 – Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. (SL.3.2)</p> <p>4 – Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. (SL.4.2)</p> <p>5 – Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. (SL.5.2)</p> <p>3 – Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details. (SL.3.5)</p> <p>4 – Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. (SL.4.5)</p> <p>– Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. (SL.5.5)</p>	<p>➤ Students use audio and video recording to collect oral history interviews, and present these to senior citizens.</p> <p>➤ Students create time-lapsed recording of a life cycle – e.g. plant growth, seasonal change.</p>	<p>➤ Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. (1)</p> <p>➤ Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. (2)</p>
<p>3 Conduct short research projects that build knowledge about a topic. (W.3.7)</p> <p>4 – Conduct short research projects that build knowledge through investigation of different aspects of a topic. (W.4.7)</p>	<p>➤ Use photo-editing software to collect photographs of historical figures and illustrate a biographical presentation.</p> <p>➤ Students develop a descriptive paragraph or poem to tell the story portrayed in a photograph (Writing with Light)</p>	<p>➤ Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. (2)</p>

Common Core Learning Standards (CCLS)	Representative Technology Integration Activities	NETS•S
<p>5 – Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. (W.5.7)</p> <p>3 – Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details. (SL.3.5)</p> <p>4 – Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. (SL.4.5)</p> <p>– Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. (SL.5.5)</p>		<p>➤ Students demonstrate a sound understanding of technology concepts, systems, operations. (6)</p>
<p>3 – Compare and contrast the most important points and key details presented in two texts on the same topic. (RI.3.9)</p> <p>4 – Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. (RI.4.9)</p> <p>5 – Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. (RI.5.9)</p> <p>3 – Write opinion pieces on topics or texts, supporting a point of view with reasons. (greater detail provided) (W.3.1)</p> <p>4 – Write opinion pieces on topics or texts, supporting a point of view with reasons and information. (greater detail provided) (W.4.1)</p> <p>5 – Write opinion pieces on topics or texts, supporting a point of view with reasons and information. (greater detail provided) (W.5.1)</p> <p>3 Conduct short research projects that build knowledge about a topic. (W.3.7)</p> <p>4 Conduct short research projects that build knowledge through investigation of different aspects of a topic. (W.4.7)</p> <p>5 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. (W.5.7)</p>	<p>➤ Students compare multiple sources on an issue and summarize the position that the “author” presents on each, reviewing statistical data, images, and narrative.</p>	<p>➤ Students apply digital tools to gather, evaluate, and use information. (3)</p> <p>➤ Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. (4)</p>
<p>3 With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. (W.3.6)</p>	<p>➤ Students participate in a scavenger hunt on a designated website to gather information. (e.g., NetTrekker)</p>	<p>➤ Students apply digital tools to gather, evaluate, and use information.(3)</p>

Common Core Learning Standards (CCLS)	Representative Technology Integration Activities	NETS•S
<p>4 – With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. (W.4.6)</p> <p>5 – With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting. (W.5.6)</p> <p>3 – NA: begins in Grade 4</p> <p>4 – Draw evidence from literary or informational texts to support analysis, reflection, and research. (greater detail provided) (W.4.9)</p> <p>5 Draw evidence from literary or informational texts to support analysis, reflection, and research. (greater detail provided) (W.5.9)</p>		<p>➤ Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. (4)</p>
<p>3 Write informative/explanatory texts to examine a topic and convey ideas and information clearly. (W.3.2)</p> <p>4 – Write informative/explanatory texts to examine a topic and convey ideas and information clearly. (W.4.2)</p> <p>5 Write informative/explanatory texts to examine a topic and convey ideas and information clearly. (W.5.2)</p> <p>3 With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. (W.3.6)</p> <p>4 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. (W.4.6)</p> <p>5 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting. (W.5.6)</p>	Office 365	<p>➤ Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. (4)</p> <p>➤ Students demonstrate a sound understanding of technology concepts, systems, and operations. (6)</p>

<p>6 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. (greater detail provided) (W.6.2)</p> <p>7 – Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. (greater detail provided) (W.7.2)</p> <p>8 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. (greater detail provided) (W.8.2)</p> <p>5 Include multimedia components (e.g., graphics, images, music, and sound) and visual displays in presentations to clarify information. (SL.6.5)</p> <p>7 – Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points. (SL.7.5)</p> <p>8 – Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest. (SL.8.5)</p> <p>6 Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas. (RI.6.5)</p> <p>7 – Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas. (RI.7.5)</p> <p>8 – Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept. (RI.8.5)</p> <p>6 Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information. (SL.6.5)</p> <p>7 – Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points. (SL.7.5)</p>	<p>➤ Students use a graphic organizer to collect and sort facts about a curriculum unit.</p> <p>➤ Students use a sequenced presentation with images and links to present research about a curriculum topic.</p> <p>➤ Students research countries and create a timeline showing parallel sequence of historical events in comparison to US historical events.</p>	<p>➤ Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.</p> <p>(1)</p> <p>➤ Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.(2)</p> <p>➤ Students demonstrate a sound understanding of technology concepts, systems, and operations. (6)</p>
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<p>8 – Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest. (SL.8.5)</p> <p>6 – Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (SL.6.6)</p> <p>7 Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (SL.7.6)</p> <p>8 – Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (SL.8.6)</p>	<ul style="list-style-type: none"> ➤ Students broadcast announcements, school news, or sports on school channel. ➤ Students create animations to show concepts, such as trajectory. 	<ul style="list-style-type: none"> ➤ Students apply digital tools to gather, evaluate, and use information. (3) ➤ Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. (4)
<p>6 – Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly. (greater detail provided) (SL.6.1)</p> <p>7 – Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others’ ideas and expressing their own clearly. (greater detail provided) (SL.7.1)</p> <p>8 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others’ ideas and expressing their own clearly. (greater detail provided) (SL.8.1)</p>	<ul style="list-style-type: none"> ➤ Students use web-conferencing tools to discuss global issues with students from another country. ➤ Students share a presentation about local culture, weather, or industry with students from another area. 	<ul style="list-style-type: none"> ➤ Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. (2)
<p>6, 7, 8 – Identify aspects of a text that reveal an author’s point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts). (RH.6-8.6)</p> <p>6, 7, 8 – Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts. (RH.6-8.7)</p> <p>6, 7, 8 – Distinguish among fact, opinion, and reasoned judgment in a text. (RH.6-8.8)</p> <p>6, 7, 8 – Analyze the relationship between a primary and secondary source on the same topic. (RH.6-8.9)</p>	<ul style="list-style-type: none"> ➤ Students review a set of resources on the same topic to determine which is misleading. 	<ul style="list-style-type: none"> ➤ Students apply digital tools to gather, evaluate, and use information (3)

<p>6 – Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information. (SL.6.5)</p> <p>7 – Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points. (SL.7.5)</p> <p>8 – Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest. (SL.8.5)</p> <p>6, 7, 8 – Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. (WHST.68.8)</p>	<p>➤ Students monitor local air and water temperature, collect information about the weather and its effect on outdoor water supplies, while tracking it over a period of months to note the change of seasons.</p> <p>➤ Students research and develop a report in word processing, presentation, podcast, and video format and compare which is more appropriate, complete, and effective.</p> <p>➤ Create a book jacket, or brochure, including</p>	<p>➤ Students apply digital tools to gather, evaluate, and use information. (3)</p> <p>➤ Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. (4)</p> <p>➤ Students demonstrate a sound understanding of technology concepts, systems, and operations. (6)</p>
<p>6 Write arguments to support claims with clear reasons and relevant evidence. (greater detail provided) (W.6.1)</p> <p>7 – Write arguments to support claims with clear reasons and relevant evidence. (greater detail provided) (W.7.1)</p> <p>8 – Write arguments to support claims with clear reasons and relevant evidence. (greater detail provided) (W.8.1)</p> <p>6 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (W.6.4)</p> <p>7 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (W.7.4)</p> <p>8 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (W.8.4)</p> <p>6, 7, 8 – Cite specific textual evidence to support analysis of primary and secondary sources. (RH.6-8.1)</p> <p>6, 7, 8 – Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently. (WHST.6-8.6)</p>	<p>➤ Students use a collaborative tool like Wiki or Office 365 to create a debate in which each group takes an opposing side.</p>	<p>➤ Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. (2)</p> <p>➤ Students apply digital tools to gather, evaluate, and use information. (3)</p> <p>➤ Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. (5)</p>

HIGH SCHOOL (GRADES 9-12)

<p>9, 10 – Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. (WHST.9-10.2)</p> <p>11, 12 – Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. (WHST.11-12.2)</p> <p>9, 10 – Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically. (WHST.9-10.6)</p> <p>11, 12 – Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information. (WHST.11-12.6)</p>	<p>➤ Students create a virtual museum with photos, drawings, and oral history.</p>	<p>➤ Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. (1)</p> <p>➤ Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. (2)</p> <p>➤ Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. (5)</p>
<p>9, 10 – Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively. (greater detail provided) (SL.9-10.1)</p> <p>11,12 – Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively. (greater detail provided) (SL.11-12.1)</p> <p>9, 10 – Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. (WHST.9-10.7)</p> <p>11, 12 – Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. (WHST.11-12.7)</p>	<p>➤ Participate in an online collaborative simulation group such as Model UN, Stock Market or election.</p> <p>➤ Students research a topic of local impact, discussing the current status and why it is an issue, then research how to solve the problem using available resources.</p>	<p>➤ Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.(1)</p> <p>➤ Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. (4)</p>

<p>9, 10 – Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically. (W.9-10.6)</p> <p>11, 12 – Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information. (W.11-12.6)</p> <p>9, 10 – Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source. (SL.9-10.2)</p> <p>11, 12 – Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data. (SL.11-12.2)</p> <p>9, 10 – Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest. (SL.9-10.5)</p> <p>11, 12 – Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest. (SL.11-12.5)</p> <p>9, 10 – Analyze seminal U.S. documents of historical and literary significance (e.g., Washington’s Farewell Address, the Gettysburg Address, Roosevelt’s Four Freedoms speech, King’s “Letter from Birmingham Jail”), including how they address related themes and concepts. (RI.9-10.9)</p> <p>11, 12 – Analyze seventeenth-, eighteenth-, and nineteenth-century foundational U.S. documents of historical and literary</p>	<ul style="list-style-type: none"> ➤ Students compare various technologies and demonstrate the pros and cons for each when used for written communication, collaboration, and instant messaging. ➤ Students research best practices in Universal Design for Learning (UDL), making a website that is easy to read, color and font friendly, and includes “text to speech” options. ➤ Students create a presentation about copyright for junior high and elementary students. This is posted on school websites. ➤ Students write a research paper, citing quotations and paraphrasing, and including references for all sources. 	<ul style="list-style-type: none"> ➤ Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. (4) ➤ Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. (5) ➤ Students demonstrate a sound understanding of technology concepts, systems, and operations. (6) ➤ Students apply digital tools to gather, evaluate, and use information. (3) ➤ Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. (5)
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<p>significance (including The Declaration of Independence, the Preamble to the Constitution, the Bill of Rights, and Lincoln’s Second Inaugural Address) for their themes, purposes, and rhetorical features. (RI.11-12.9)</p> <p>9, 10 – Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation. (WHST.9-10.8)</p> <p>11, 12 – Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation. (WHST.11-12.8)</p> <p>9, 10 – Draw evidence from informational texts to support analysis, reflection, and research. (WHST.9-10.9)</p> <p>11, 12 – Draw evidence from informational texts to support analysis, reflection, and research. (WHST.11-12.9)</p>		

TECHNOLOGY DELIVERY

Strategies for the delivery of specialized or rigorous courses and curricula through the use of technology, including distance learning technologies.

GOAL: ACCESS AND EQUITY

This section, Access and Equity, focuses the opportunities of 1:1 or Bring Your Own Device (BYOD) configurations of instructional technology, to be used in the school and outside of school as well.

According to current district policies in NECSD, students are not allowed to use their own technology in the classroom. As the district is interested in further exploring the use of digital textbooks and instructional materials, the need for exploring new devices has increased. Parents, teachers and building administrators all cited that neighboring, suburban schools are exploring these areas. They also mention the national coverage of the spread of 1:1 and/or BYOD programs in schools across the nation.

The recommendations included in this section focus on creating a group that will explore options that would be optimal for Newburgh students, using existing work on best practices, guidelines and issues. Changing district policy will be preceded by small pilots in schools.

Initiative: Research and create district plan for Mobile Learning: BYOD and/or 1:1	
Recommendation: Convene a 1:1/BYOD (Bring Your Own Device) committee to research these strategies and possibly pilot them in selected schools or classrooms. The committee should include parents, teachers, students, district leadership, and school leadership. Ideally some parents will also represent the business community. Members from the public library, hospital and a local university could add insights from their mobile computing experiences and assist in the pilot implementation strategies.	
Leadership Responsibility: <ul style="list-style-type: none">➤ Technology Leadership➤ Technology administrators➤ Parents, students➤ Educators and administrators➤ Community including businesses and local universities➤ Public librarian	Key Performance Indicator(s) <ol style="list-style-type: none">1. Implementation plan for 1:1/BYOD pilot that includes timelines, milestones, roles, responsibilities, and progress monitoring strategies.2. Data and information necessary to deploy 1:1/BYOD implementation across BPS as funding permits.3. Students will have more time each week to use computer technology

Action Steps	Timeline		
	Year 1	Year 2	Year 3
<p>1. Convene a group of Newburgh parents, students, district leadership, school leadership, teachers, ITCs, and representatives of the business community, a hospital, and local universities.</p> <p>The committee tasks would be to:</p> <ul style="list-style-type: none"> ➤ Define 1:1 and BYOD efforts. ➤ Identify content areas and potential devices for pilots. ➤ Identify, develop, and approve any necessary policy or procedure requirement for a 1:1 and/or BYOD pilot. ➤ Set priorities, timelines, and evaluation metrics for pilot implementation. ➤ Research funding, ownership strategies, insurance, and best practices from other districts with 1:1 or BYOD. ➤ Develop a budget for a phased full-scale implementation. 	X		
<p>2. Research and monitor successful 1:1 and BYOD programs. Review current literature on 1:1 and BYOD, challenges and opportunities. Incorporate current conditions in NECSD with wireless access in schools, the community, and homes, technical and end-user support capacity, and teacher readiness to incorporate technology tools into daily instruction in this manner.</p>	X		
<p>3. Review and use as appropriate the tools and case studies of mobile learning in the CoSN Guide for Mobile Learning Implementation, which addresses these questions:</p> <ul style="list-style-type: none"> • How do we create a program with a sustainable impact on teaching and learning? • What are the steps involved in implementing a mobile learning program? • How do we optimize the investment of our technology dollars? • How do we choose devices, networks and software for our implementation? • What are the security considerations in implementing a mobile learning program? • What are the policy considerations for a mobile learning program? • What are the professional development considerations? • What are the teaching models associated with mobile learning? • What are the options for funding a mobile learning program? <p>Use https://sites.google.com/site/lmlguide/intro/mobile-learning-insights as a guidepost for this work</p>	X		

<p>4. Review and use as appropriate the tools in the K12 Blueprint: A planning resource for personalizing learning, http://k12blueprint.com , which includes these 1:1 and BYOD topics at http://www.k12blueprint.com/byod :</p> <ul style="list-style-type: none"> ➤ Getting Started with BYOD ➤ Planning and Implementation Framework ➤ BYOD Implementation Challenges ➤ Mobile Technology Scenarios ➤ Mobile Learning: the Next Wave of K12 Education Innovation ➤ Exemplar BYOD presentations ➤ District Readiness Checklist ➤ Teacher Readiness Checklist ➤ BYOD Case Studies from Mooresville North Carolina and from Houston Independent School District ➤ BYOD Sample Acceptable Use Policies 	X	X	
<p>5. Analyze the benefits of different 1:1 models at different instructional levels (K-2, 3-5, 6-8 and 9-12), considering take-home vs. in class/school only use. Analyze the value of single device (tablet, smartphone, network, Chromebook, laptop), single brand vs. multiple device, multiple brand deployments.</p>	X	X	
<p>6. Define potential pilots at multiple levels. Determine strategy to secure funding. Implement formal pilots as funding allows. Consider piloting BYOD at the high school level first, followed by the middle schools.</p>	X	X	
<p>7. Set clear evaluation metrics around specific criteria for the pilot implementations. Consider securing support from a local university to support pilot monitoring and evaluation.</p>		X	X
<p>8. Explore opportunities for grant or foundation funding of 1:1 or other pilots, perhaps in partnership with other organizations such as a university, public library, or science museum.</p>	X	X	
<p>9. Develop and implement necessary policies and procedures for pilot implementation and refine/revise throughout the pilot as needed. Consider security, liability, and responsible use policies needed to successfully manage, deploy, and support BYOD.</p>		X	X
<p>10. Advance 1:1 and BYOD discussions and decisions based upon pilot outcomes, emerging technologies, readiness for a district-wide implementation, and needs for teacher training.</p>		X	X
<p>11. Develop 1:1/BYOD implementation plan, timelines, budget, funding strategies, PD plan, technical and end-user support, and monitoring plan for</p>		X	X

full-scale implementation as determined from the pilots, incorporating “lessons learned” along the way.			
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PARENTAL COMMUNICATIONS & COMMUNITY RELATIONS

Strategies to promote parental involvement and to increase communication with parents and community, including a description of how parents and community will be informed of the technology to be used with students.

GOAL 1

Provide informational opportunities for parents to become informed about and involved in district educational technology initiatives and support the district vision to meaningfully integrate technology into all levels of curriculum, instruction and assessment.

Steps:	Year 1	Year 2	Year 3
Continue to provide remote access of network software for faculty, parents and students, encouraging parents to access the network to monitor student achievement and attendance	Conduct a needs assessment regarding use and understanding of Infinite Campus and develop a plan based on the findings.	Implement plan to increase usage by all stakeholders.	Monitor the usage of Infinite Campus resources to monitor student achievement and attendance, as well as parent engagement
Develop a series of information sessions for parents (sessions also provided in Spanish) on Digital Literacy, in combination with ancillary district activities focused on community building.	Identify relevant information to provide to parents and seek out opportunities to deliver the information	Identify stakeholders underrepresented at sessions and create new avenues to engage those parents and community members	Monitor the efficacy of the information sessions
Continue to identify ways to reach increasing numbers of parents, students, and members of the NECSD community through websites, surveys, and social media.	Set foundational expectations for campus use of technology in parent and community communications	Continue to explore, build and increase partnerships. Explore volunteer and mentoring programs	Implement volunteer and mentoring programs to increase communication between stakeholders.
Increase awareness for school-to-career options through the use of technology to support parents and students in recognizing individual skills, aptitudes, and interests necessary to make informed career choices and college selections.	Provide all educators, parents and students with training in Naviance®. Seek out strategic online partnerships to support students in making informed career and college choices.	Continue to explore technological supports and options to students in making informed career and college choices.	Provide professional development opportunities for teachers to explore and implement such programs.

GOAL 2

Build a collaborative model to develop programs with strategic partners.

Steps:	Year 1	Year 2	Year 3
At the high school level, implement specialized virtual course options for credit recovery	Provide training for faculty in chosen learning system;; Assure training, access and location for students identified in the relevant data (stratified by need) to accomplish the program.	Review data to quantify the effectiveness of the learning system. (Change if necessary.) Strategically expand the uses of the program to include additional functions of virtual courses.	Monitor data and adjust according to evolving student need.
Analyze and consolidate existing software partnerships throughout the district.	Examine existing software programs for efficacy and student outcome.	Prioritize existing software programs and renew commitment to those which support growth in student achievement according to data.	Continue to prioritize existing software programs and renew commitment to those which support growth in student achievement according to data.

PROFESSIONAL DEVELOPMENT

Strategies for providing ongoing, sustained professional development for teachers, principals, administrators, and school library media personnel to ensure that staff know how to use the new technologies to improve education or library services.

OVERVIEW

Professional development will be provided such that all teachers will be fluent in all aspects of effective instruction in a 21st Century Classroom. Support and training will also be provided to help teachers deal with all aspects of restructuring their teaching and learning environment, especially with regard to new classroom management issues, which may arise in the 21st Century classroom. The following 21st Century Skills are expected of all students and staff:

- Capable information technology users
- Information seekers, analyzers and evaluators.
- Problem solvers and effective users of productivity tools
- Creative and effective users of productivity tools
- Communicators, collaborators, publishers, and producers
- Informed and responsible technology users

GOAL 1

The district will provide ongoing and embedded professional development for teachers and staff to build their self-efficacy and competence in integrating technology to meet curriculum objectives and standards and improve student achievement.

Steps:	Year 1	Year 2	Year 3
There will be a Technology Facilitator in each building who is available to co-plan and co-teach in order support teachers as they utilize technology to increase student engagement and achievement with the curriculum objectives in mind. (Provide research to support this model, ISTE, etc.)	X	X	X
A needs assessment will be designed and implemented as soon as possible (March/April 2015) in order to establish needs and develop targeted professional development. The non-evaluative survey would be administered with a goal of 100% participation.	Differentiated course offerings will be provided to staff based on results of needs assessment. There will be a conscious effort to provide clear course descriptions.	Updated needs assessment to measure growth. Course offerings will be updated based on enrollment and evaluation feedback.	Updated needs assessment to measure growth. Course offerings will be updated based on enrollment and evaluation feedback.
The district will increase the amount of Professional Development offered to faculty and staff during dedicated professional development days and develop an improved system for disseminating information about what opportunities are available regarding technology.	Create "Tech Bytes" email to be sent to all staff on a regular and consistent basis, including pertinent information.	Create "Tech Bytes" email to be sent to all staff on a regular and consistent basis, including pertinent information. Ongoing training opportunities provided.	Create "Tech Bytes" email to be sent to all staff on a regular and consistent basis, including pertinent information. Ongoing training opportunities provided.

Steps:	Year 1	Year 2	Year 3
Provide access to Atomic Learning or other similar just-in-time learning system for educators to get specific information on various technological implementation methods. Specific lessons will be identified for each position as part of the competencies required for effective implementation.	All staff to be registered and trained on how to use the Atomic Learning platform.		
Create an annual NECSD Tech Week during July or August. This will be a week-long event with many course offerings. Staff members will be able to sign up for multiple courses throughout the week. Course determination will be based upon the results of a tech survey administered to all staff in March/April.	Design and plan the first annual NECSD Tech Week. Utilize BOCES services for first annual rollout.	First annual NECSD Tech week program offered Fall 2015	Second annual NECSD Tech week program offerings to be determined based on evaluation and feedback from year 1.

GOAL 2

Teachers will know how to find information they need in order to integrate technology and use it to meet their curriculum standards and will be provided with resources to access this type of information.

District will improve the communication about the professional development available to teachers and staff through a variety of print and electronic tools.

Steps:	Year 1	Year 2	Year 3
All staff will be provided with a comprehensive training on Office 365 as well as any software which is implemented districtwide and supported continually throughout the year as they implement use, and have a basic knowledge of troubleshooting. These offerings will be leveled for beginners or experienced users.	Training offerings will be updated to provide differentiated instruction staff with varied ability levels.	Course offerings will be updated based on enrollment and evaluation feedback.	Course offerings will be updated based on enrollment and evaluation feedback.
Teachers will continue to have access to free technology professional development after school through the district's participation in Orange Ulster Model Schools CoSer.			

Steps:	Year 1	Year 2	Year 3
District will teach staff to facilitate and manage student use of technology in the classroom and ensure that all district stakeholders are informed of and held accountable to good digital citizenship practices.	District will develop a districtwide digital citizenship campaign.	District will pilot a districtwide digital citizenship campaign.	District will roll out a districtwide digital citizenship campaign.

The district will facilitate the development of a Professional Learning Community devoted to the promotion and support of technology integration in the classroom setting.			
Steps:	Year 1	Year 2	Year 3
Each school will appoint members to a Technology Implementation and Support team which consists of administrators, the technology coach, media specialist and teachers which will serve as the liaison between the school and the district technology department in order to ensure that	Team is established and members are appointed. Goals and function of team are established and disseminated at the district level.	Team's effectiveness is evaluated and functions and goals revisited.	Team's effectiveness is evaluated and functions and goals revisited.

<p>school based staff are aware of district technology initiatives and have a voice in how to train and support staff in house.</p> <p>Teacher teams can be organized with tech-savvy teachers as “buddies” within buildings to provide additional peer support. (STLE grant could support this third item.)</p>	<p>Teacher Tech leader role will be defined and established and initial leaders appointed.</p>	<p>Teacher Tech leader's effectiveness is evaluated and functions and goals revisited.</p>	<p>Teacher Tech leader's effectiveness is evaluated and functions and goals revisited.</p>
<p>There will be a district website which will serve as a portal for exemplary lesson plans, video demonstrations, and other resources which are developed by teachers to be shared globally. Additionally, there will be a weekly or bi-weekly post (Tech Bytes) to offer strategies, best practices, helpful hints, course offerings and highlighted new contributions to Atomic Learning.</p>	<p>Atomic Learning is used for this purpose.</p>	<p>Atomic Learning is used for this purpose.</p>	<p>Atomic Learning is used for this purpose.</p>

What qualities should my network have?

- 1 Fast enough to meet your education goals
- 2 Cost-effective
- 3 Maintainable over time



UNDERSTAND.

PLAN.

PROCURE.

A small investment of time from district leaders can yield a big impact on the way students and teachers leverage technology to improve learning opportunities. *Network Essentials for Superintendents* will assist district leaders in understanding, planning, and procuring the network essentials that create a strong foundation for digital learning.

SUMMARY

To prepare Newburgh for the transformative changes called for in Vision 2020, it is critical to first address problems with the current network. What types of devices, how many we purchase, etc. are insignificant if our wireless network cannot handle the digital, technological, and creative needs of today's teaching and learning practices. Newburgh must focus on providing a robust, converged network infrastructure including voice, data, video and a wireless communications network throughout the district. The network infrastructure must provide flexibility, mobility, and secure access to students, teachers, administrators, schools operations, schools services staff and the community.

MISSION

In order to achieve the NECSD vision that, "all students will attain the skills needed to navigate the digital world," quality, high-speed technology systems will be utilized throughout the school district to advance digital learning. This type of network will enable anytime, anywhere learning.

INFRASTRUCTURE NEEDS/TECHNICAL SPECIFICATION, AND DESIGN

Strategies to identify the need for telecommunication services, hardware, software, and other services to improve education or library services, and strategies to determine interoperability among the components of the technologies to be acquired.

CURRENT STATE: INFRASTRUCTURE

Newburgh Enlarged City School District has conducted an assessment of the network infrastructure. The key areas of assessment include:

- WAN Route/Switching
- Datacenter
- Wireless
- Voice
- Video
- Internet

This assessment used physical inventory, data collection tools, remote logins to infrastructure, and interviews with staff members to collect data on Newburgh Enlarged City School District's physical infrastructure. The primary focus of this assessment is the network infrastructure. This report covers findings and high-level recommendations based on priority and business objectives and the understanding that the majority of existing Cisco equipment is no longer supported by Cisco, or is coming up on end-of-life dates.

GOALS AND STRATEGIES: INFRASTRUCTURE

- Develop and implement a comprehensive networking plan for communications within and among schools and sites with the goal of enhancing teaching and learning experiences.
- Implement and maintain a modern, high-performing infrastructure to support voice, video data and wireless.
- Enable community network access through the development of a secure guest network.
- Make a commitment by investing in its infrastructure to support for the next generation a network that enables mobility through a district-wide wireless network.

PRIORITIES

Newburgh Enlarged City School District lists the following business priorities.

- A switching architecture that is supported by Cisco
- Scalable growth of the network environment-Pervasive Wi-Fi
- Network Redundancy/Data Center

FUTURE STATE: INFRASTRUCTURE

WIRELESS UPGRADE AND EXPANSION EXPLANATION

The new switches will be at the beginning stages of their life-cycle, and will be supported by Cisco. This allows for replacement of failed equipment, and technical support to quickly resolve network issues. In addition, the new switches will provide:

ROUTE / SWITCH

1. The majority of existing Cisco equipment is no longer supported by Cisco, or is coming up on end-of-support dates. The new switches are at the beginning stages of their life-cycle, and will be supported by Cisco. This allows for replacement of failed equipment, and technical support to quickly resolve network issues.
2. The new switches will provide 10/100/1000 PoE (power over Ethernet) ports throughout the district. This allows gigabit Ethernet to all workstations, and allows for easier movement of phone handsets.
3. The new switches will support 10 gigabit uplinks, which will allow for faster transfer rates and prevent packet drops due to congestion.
4. The new switches will provide stacking capability for data closet switches to enhance manageability and decrease troubleshooting time.
5. The new switches will provide uplink redundancy to data closet switches to prevent single link failures from causing an outage for large portions of users.
6. The new design will provide core switch redundancy to prevent a single switch failure from causing an outage for the entire building.
7. The new design will use redundant hand-offs from Lighttower to prevent a single link failure from causing an outage for the entire building.
8. The new district design will provide for dual connections to the internet, at redundant sites. This allows the data center to go offline, and still allow schools to access websites and cloud based services (email).
9. The new data center switches will allow for 10 gigabit connections for servers and storage devices which will allow for faster file/application performance.
10. The new design moves core district equipment out of Chestnut Street, which is not capable of providing proper power or environmental conditions for critical IT infrastructure.

UPS

Replacing UPS systems that are no longer functioning, or reaching the end of their life-cycle. These systems provide power surge protection, and allow for the phones to run during a power outage.

IMPLEMENTATION TIMELINE

Goal	Year 1	Year 2	Year 3
Route/Switch	Begin replacing all routers and switches to provide 1G to the classroom. Upgrade and run new fiber between each wiring closet to support speeds of 10-40G. Replace UPS and AC.	Continue to replace end of support switches and routers, and UPS's in each wiring closet. Renew maintenance contracts.	Additional Ethernet cabling to the classroom to support new technology requirements. Review and implement battery replacement plan on all UPS's.
Datacenter	Implement a new production datacenter with switches, servers, UPS, AC, generator and storage.	Relocate the backup or disaster recovery datacenter from Chestnut to the BOE.	Install an additional server hardware and storage to meet the demand. Review and test generator requirements.
Wireless	Install wireless controllers in the datacenter, cable and mount high speed access points in every classroom.	Finish cabling and mounting of access points. Implement secure and guest access. Provide 1G wireless to the classroom (802.11ac phase 1).	Continue configuring and mounting of new access points. Take advantage of high speed capability of the access points 2-3G to the classroom (802.11ac phase 2).
Voice	Upgrade the call manager software and SRST routers.	Replace all handsets in the district.	Replace all backend hardware of the voice network at the BOE and CH datacenter. New servers for call managers, voicemail, call handler and 911.
Video	Review video requirements and implement new servers, cameras, and storage.	Add a new video solution with storage and servers dedicated on high speed connections for video surveillance.	Add additional cameras and cabling as needed and update software for video surveillance.
Internet	Upgrade current bandwidth to the internet.	Add a second connection to the internet at the BOE for redundancy.	Review and increase bandwidth to the internet to meet the demands in the classroom, video conferencing and cloud-based instruction.
WAN	Upgrade the fiber ring and provide 10G handoffs to the datacenters.	Upgrade the backend the shared fiber backbone from our service provider to support 50-100G.	Review and increase the fiber handoffs to each building to support bandwidth of 10G.
Interactive Projectors			Install interactive projectors in each classroom across the district.

EQUIPMENT LEASE REPLACEMENT PROJECT

By the end of each summer, nearly one-third of all computer equipment currently in use in the district will be replaced by new equipment per the conditions of the ongoing technology equipment leasing program. The placement of all equipment will be done in conjunction with school-level planning meetings that identify the highest priority needs for the equipment.

The inventory of all technology equipment will be formally updated once each year (early spring), with continuous updating of the database, as needed. Guidelines and instructions on maintaining information in the inventory database will be developed and distributed to all appropriate school-level staff.

INVENTORY

Inventory	Computer Labs	Class-rooms	Library or Media Ct.	Admin. Office	Mobile Labs	Planned Future Acquisitions		
						Year 1	Year 2	Year 3
Computers or Tablets (list by type)						See Lease Description Above	See Lease Description Above	See Lease Description Above
Desktops OptiPlex 760 OptiPlex 780 OptiPlex 790 OptiPlex 990 OptiPlex 9010 OptiPlex 9020	655	3683	209	363		See Lease Description Above	See Lease Description Above	See Lease Description Above
Laptops/Tablets Latitude 6400 Latitude 6410 Latitude 6420 Latitude 6430 Latitude 6430u					1553	See Lease Description Above	See Lease Description Above	See Lease Description Above

Peripheral Devices				
A. Printers (Labs, Admin, and Classroom Locations)	186	10% replacement	10% replacement	10% replacement
B. Scanners	41	10% replacement	10% replacement	10% replacement
C. Interactive Whiteboards	310	10% replacement	10% replacement	10% replacement
D. Digital Cameras	180	10% replacement	10% replacement	10% replacement
E. Projection Devices	347	10% replacement	10% replacement	10% replacement
F. Document Cameras	181	10% replacement	10% replacement	10% replacement
G. Speakers	300	10% replacement	10% replacement	10% replacement

Network/Infrastructure Inventory

Device	Make/Model	Quantity
Wireless Access Points		425
Wireless Controllers	Cisco 4404	9
Switches	Cisco 2950	150
Switches	Cisco 2960	100
Switches	Cisco 3550E	50
Switches	Cisco 4507	10
	Total	310
Server	HP Proliant DL380G6	2
Server	HP Proliant DL380G7	2
Infinite Campus Servers	Dell R900	3
Websense Server	Dell 2950	1
Server	IBM AS400	1
	Total	9
Virtual Machines		45

Device	Make/Model	Quantity
Storage SAN	FAS 2040	1
Storage SAN	FAS 2240	1
Storage SAN	FQS 2240	1
Total		3
Router	Cisco 2851	13
Call Manager		2
Firewall	Sonic Wall	2
Firewall	Dell NSA 6600	1
Total		3
VPN		3

Software-Data

Software	License Type	Description
A. Infinite Campus	District	The application that handles all aspects of student data. This includes grades, schedules, health office, report cards, transcripts, etc. Future plans would include new grade book implementation, electronic document repository, online registration, and possible cloud hosting by Infinite Campus which would eliminate the physical onsite servers.
B. IEP Direct	District	The application used in tracking all Special Ed student's needs. Future plans include the implementation of electronic document repository and linking IEP Direct to Infinite Campus for demographic data transfer between the systems.
C. Lexmark	District	The application that handles all in district internal test scanning needs. It is also used for recording the scores for pre and post assessments for APPR.
D. eScholar	District	This is the district data warehouse that is used to house all of the historical assessment data including internal benchmarks, state assessments, and Regents scores.
E. Follett Destiny	District	This application is used by the libraries in the district to keep track of library books. It is a web based application that is hosted by Follett. Future plans include the access of students to e-books.
F. Gateway Textbooks	District	This application is used by the buildings to keep track of all textbooks within the classrooms. Future plans would be to look at a new system. The company that owned this software has closed its' doors. The software still fits the needs of the district and costs zero dollars to keep running.
G. School Messenger	District	This is the application that is used to send phone messages to the district households for school closings, emergencies, and general district information. It is a web based application hosted by School Messenger that interfaces with Infinite Campus demographic data. Future plans include the addition of sending SMS messages and attendance calling at the secondary school level.

Software	License Type	Description
H. WinCap	District	This is the application that house all Human Resource and Payroll data. All employee APPR results, certifications, employment history, etc. data is housed in this application.
I. Nutrikids	District	This is the application that is used to keep track of all free and reduced students. All applications are handled through this software. It is also used for the generation of menus for the school cafeterias. This system interfaces with Infinite Campus for demographic data.
J. Transfinder	District	This application is used to provide all transportation to the district's students. All bus routing is done with this software to maximize the routes by using fewer buses which allows the district to save money. This system interfaces with Infinite Campus for demographic and building data.
K. Student Security	District	This application is used at the secondary level to produce student IDs. It interfaces with Infinite Campus to get student numbers and schedule information which is printed on the cards.
L. Naviance	District	This application is used as a tool for guidance to prepare students for applying to colleges.
M. SafeSchools	District	This application is used to keep track of all student behavior incidents. It provides the ability to simply produce the district VADIR state reporting. It is web based and hosted by Ed Vistas. It interfaces with Infinite Campus for student demographics.
N. Stafrac	District	This application is used to keep track of all APPR requirements for the district. It is web based and hosted by Ed Vistas. It interfaces with Infinite Campus for roster and active teacher information.
O. Datamate	District	This is a new application which is a data warehouse. It will be used to put assessment data into so that historical analysis can be done. It will be used to generate a data dash board for central staff to be used in evaluating curriculum needs for the district. Currently this is an in progress application that is just being rolled out.

SOFTWARE INVENTORY			
MICROSOFT OFFICE 2015			
<ul style="list-style-type: none">• Word• Excel• PowerPoint• Publisher	<ul style="list-style-type: none">• Access• FrontPage• Outlook (client version)• Outlook Web Access		
NFA SPECIAL PROGRAMS			
<ul style="list-style-type: none">• Photoshop• Illustrator• InDesign	<ul style="list-style-type: none">• Acrobat• Flash• Dreamweaver		
MULTIMEDIA			
<ul style="list-style-type: none">• SAFARI Montage• Maker• Photo Story 3	<ul style="list-style-type: none">• KidPix Deluxe 4 (Pre-K-5)• Avid Xpress		
OTHER		SPECIAL EDUCATION/ACADEMIC INTERVENTION	
<ul style="list-style-type: none">• SMART Notebook• SMART Math• castle learning (PreK-8)• Inspiration (6-12)• Kidspiration (Pre-K-5)	<ul style="list-style-type: none">• Movi• BrainPop Jr.• Brain Pop en espanol• Geometer’s Sketchpad• Google Earth	<ul style="list-style-type: none">• IEP Direct•	<ul style="list-style-type: none">•
		STUDENT MANAGEMENT/FINANCIAL/HUMAN RESOURCES	

<ul style="list-style-type: none"> • Skype 	<ul style="list-style-type: none"> • Google Docs • Encyclopedia Britannica 	<ul style="list-style-type: none"> • Infinite campus • wincap • wincap web 	<ul style="list-style-type: none"> • My Learning Plan •
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IT MONITORING, EVALUATION PROGRAMS, AND IMPLEMENTATION MANAGEMENT

OVERVIEW

By the 2018 school year, the Newburgh Enlarged City School District will gauge the progress and success of technology integration through a system of continual assessment. **IT Monitoring, Evaluation Programs, and Implementation Management** focuses on the role of technology resources as tools to monitor and assess the effectiveness of the delivery of curriculum content, and supports the assessment of student achievement as well as best business practices. The integration of scientifically-researched best practice teaching and learning technologies enables district leaders and stakeholders to know whether changes in resources are improving student learning and to observe best practices with technology.

GOAL 1

The District will evaluate the effectiveness of our technology.

- How are digital technologies and resources applied in the classroom?
- Is the technology useful for achieving educational goals and learning objectives?

Steps:	Year 1	Year 2	Year 3
Monitor how digital technologies and resources are applied in the classroom.	<ul style="list-style-type: none">• Conduct non-evaluative classroom visits to inventory resources available and how they are being applied within instruction. (Protocol TBD by District-wide Committee)	<ul style="list-style-type: none">• Continued use of student survey/interview regarding the use of technology within the classroom to inform progress.• (To be compiled, analyzed and distributed by District-wide Committee)	<ul style="list-style-type: none">• Administrator data collection of the use of technology informed by:<ul style="list-style-type: none">○ Lesson Plans○ Teacher evaluations○ Student Work
Assess the effectiveness of the use of technology to achieve educational goals and learning objectives.	<ul style="list-style-type: none">• Implement student survey/interview regarding the use of technology within the classroom. (To be compiled, analyzed and distributed by District-wide Committee)	<ul style="list-style-type: none">• Conduct on-line teacher checklist (SELF-REPORTING) regarding the use of technology (Compiled results reviewed by Administrator)• Establish conditions necessary for the use	<ul style="list-style-type: none">• Continued use of student survey/interview regarding the use of technology within the classroom to inform progress.• Utilize Light Speed Web Monitoring System

	<ul style="list-style-type: none"> • Conduct on-line teacher checklist (SELF-REPORTING) regarding the use of technology (Compiled results reviewed by Administrator) • Establish conditions necessary for the use of Light Speed Web Monitoring System 	of Light Speed Web Monitoring System	
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GOAL 2

The District will evaluate the implementation of the technology.

- Is technology being applied successfully in the classroom?
- Is student learning enhanced by the use of technology?
- Are instructional leaders successfully using technology and supporting its use in the classroom?

Steps:	Year 1	Year 2	Year 3
Monitor the PD opportunities for faculty and staff.	<ul style="list-style-type: none"> ➤ Conduct a needs assessment for PD within specific areas of technology to inform the NECSD PD plan (Compiled by C & I) ➤ Review enrollment within technology PD sessions ➤ Review session-specific evaluation of PD sessions from participants to inform plan ➤ Track PD hours - WinCap; Teacher Portal 	<ul style="list-style-type: none"> ➤ Review of enrollment within technology PD sessions ➤ Review session-specific evaluation of PD sessions from participants to inform plan ➤ Track PD hours - WinCap; Teacher Portal ➤ Evidence collection addressing utilization of PD (Protocol TBD) ➤ Evidence collection addressing effective implementation of PD (Protocol TBD) 	<ul style="list-style-type: none"> ➤ Review session-specific evaluation of PD sessions from participants to inform plan ➤ Review of enrollment within technology PD sessions ➤ Review session-specific evaluation of PD sessions from participants to inform plan ➤ Track PD hours - WinCap; Teacher Portal ➤ Evidence collection addressing utilization of PD

Steps:	Year 1	Year 2	Year 3
			➤ Evidence collection addressing effective implementation of PD
Monitor district's policies for faculty, staff and student use of technologies, including an Acceptable Use Policy. (See Appendix C)	<ul style="list-style-type: none"> ➤ Continue utilization of the Web Content Filtering System currently in place ➤ Begin installation and training of Light Speed web monitoring system. ➤ Conduct a yearly web-based survey of staff perceptions related to the existing technology infrastructure resources and capabilities being used by staff to inform next steps (To be developed by District-wide Committee) ➤ Continued access to monitor network use by teachers, students and instructional leaders ➤ Conduct an annual review of the Acceptable Use Policy by all stake holders with the opportunity to provide feedback (on-line survey) ➤ Final recommendation for AUP based on BOE and District Legal Counsel review. 	<ul style="list-style-type: none"> ➤ Begin rollout and training of Light Speed web monitoring system. ➤ Conduct a yearly web-based survey of staff perceptions related to the existing technology infrastructure resources and capabilities being used by staff to inform next steps ➤ Continued access to monitor network use by teachers, students and instructional leaders ➤ Conduct an annual review of the Acceptable Use Policy by all stake holders with the opportunity to provide feedback (on-line survey) ➤ Final recommendation for AUP based on BOE and District Legal Counsel review. 	<ul style="list-style-type: none"> ➤ Full implementation of Light Speed web monitoring system. ➤ Conduct a yearly web-based survey of staff perceptions related to the existing technology infrastructure resources and capabilities being used by staff to inform next steps ➤ Continued access to monitor network use by teachers, students and instructional leaders ➤ Conduct an annual review of the Acceptable Use Policy by all stake holders with the opportunity to provide feedback (on-line survey) ➤ Final recommendation for AUP based on BOE and District Legal Counsel review.

Steps:	Year 1	Year 2	Year 3

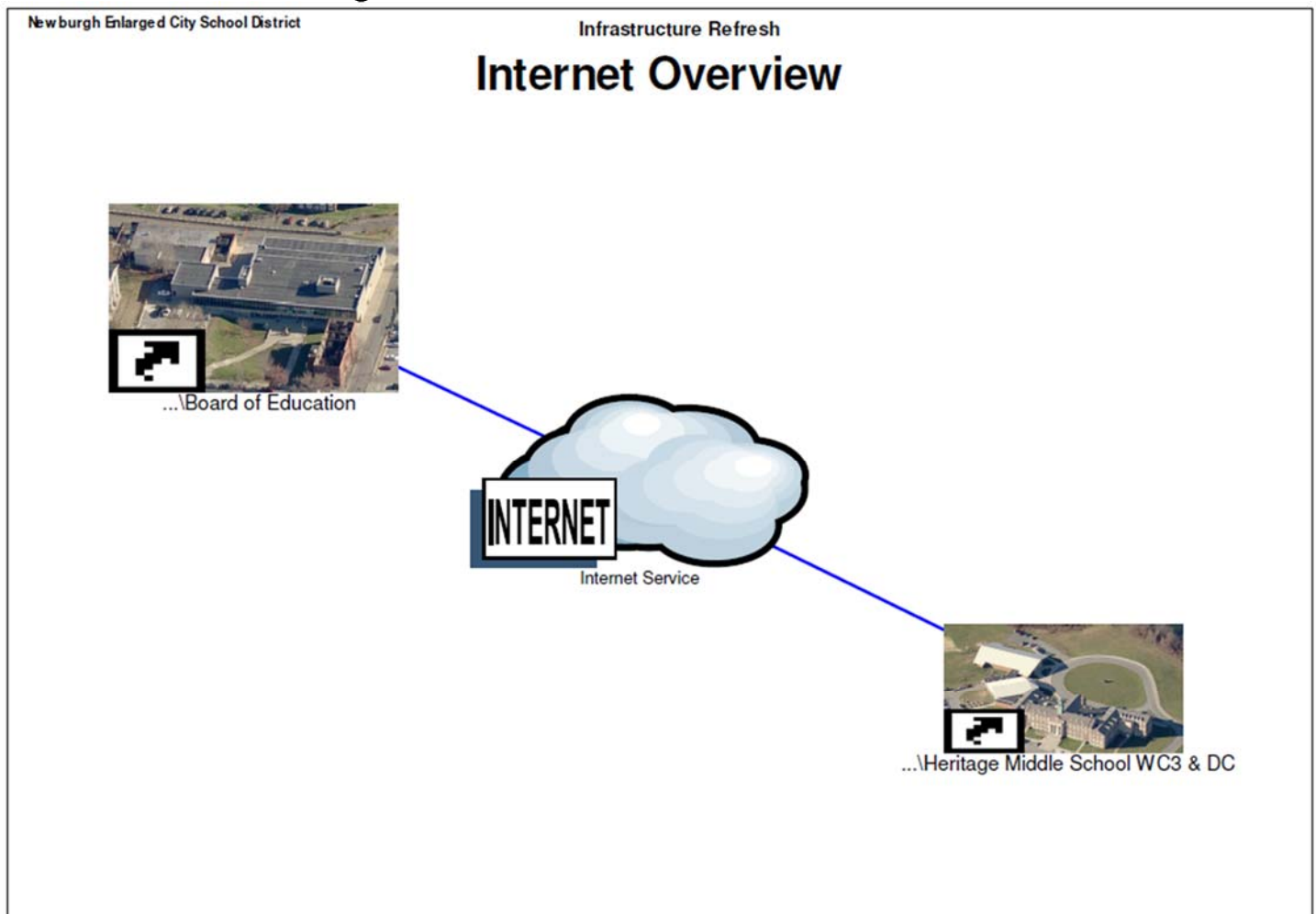
FUNDING AND BUDGET

Newburgh Enlarged City School District- Projected Technology Budget

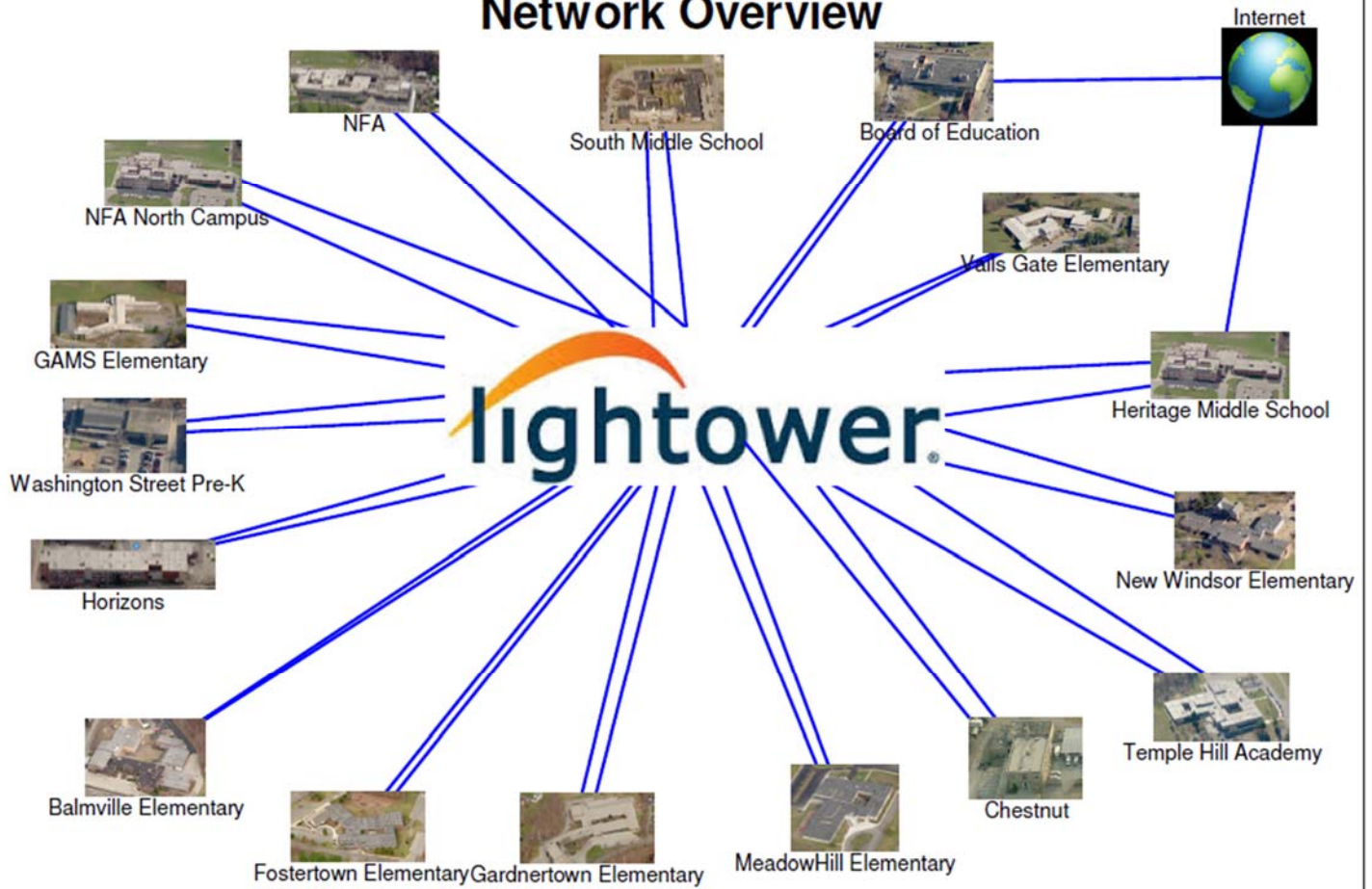
Category		2015-2016	2016-2017	2017-18
Network Infrastructure - network equipment, servers and telecommunications/Internet		\$183,000	\$201,300.0	\$221,430.0
New Computers - PC's, thin clients and laptops on mobile carts		\$845,000	\$929,500.0	\$1,022,450.0
Misc. Contractual Expense	Replacement computers for non-instructional staff - existing contracts	\$150,000	\$165,000.0	\$181,500.0
Peripherals- Printers and Interactive Projectors				
Software Instructional		\$301,000	\$331,100.0	\$364,210.0
Software Non-Instructional		\$170,000	\$187,000.0	\$205,700.0
Software Central Server	Support services for network, equipment installation, testing and grading, cyber security, Support Edge Premium, etc.	\$385,000	\$423,500.0	\$465,850.0
Software Library		\$30,000	\$33,000.0	\$36,300.0
BOCES Services		\$175,000	\$192,500.0	\$211,750.0
Internet	Software including Infinite Campus, Scholastic Hosting, Altiris, School Messenger, School Dude, Websense, vSphere, Data Dashboard, etc.	\$310,000	\$341,000.0	\$375,100.0
E-rate Local Share	Microsoft Office365 and contracted technical support services	\$250,000	\$250,000	\$250,000
Professional Development				
Evaluation				

Technology Staffing (Instructional and Technical)		\$562,995	\$619,294.5	\$681,224.0
HR / FIN Software		\$80,000	\$88,000.0	\$96,800.0

Infrastructure Diagrams



Network Overview



Core Wireless Equipment Overview

District Office (Data Center)



AIR-CT8510-1K-K9



SFP-10G-SR=[4]

Heritage Middle School (Backup Data Center)



AIR-CT8510-HA-K9



SFP-10G-SR=[4]

Management (Prime)



R-PI2X-K9

Mobility Services



L-MSE-7.0-K9



L-MSE-PAK

UCS Server



UCUCS-EZ-C240M3S



VMW-VS5-ST-1A=[2]

Will run Prime and Mobility

Identity Services



L-ISE-W-S-5K=



UCSC-RAIL1=[2]



SNS-3415-K9[2]



AP Placement

Board of Education (Data Center Layout)

Final Rack and Power design needs to be reviewed by APC.

This is just budgetary.



APC AR8165ABLK[6]

Battery
+
Service
Bypass



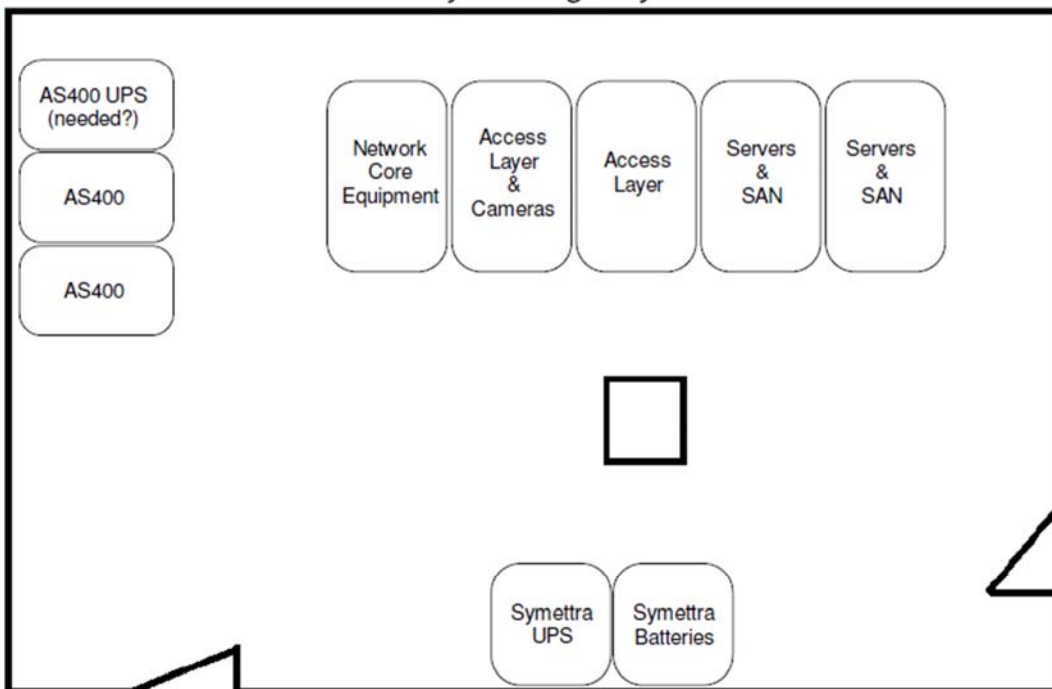
APC SY30K40F



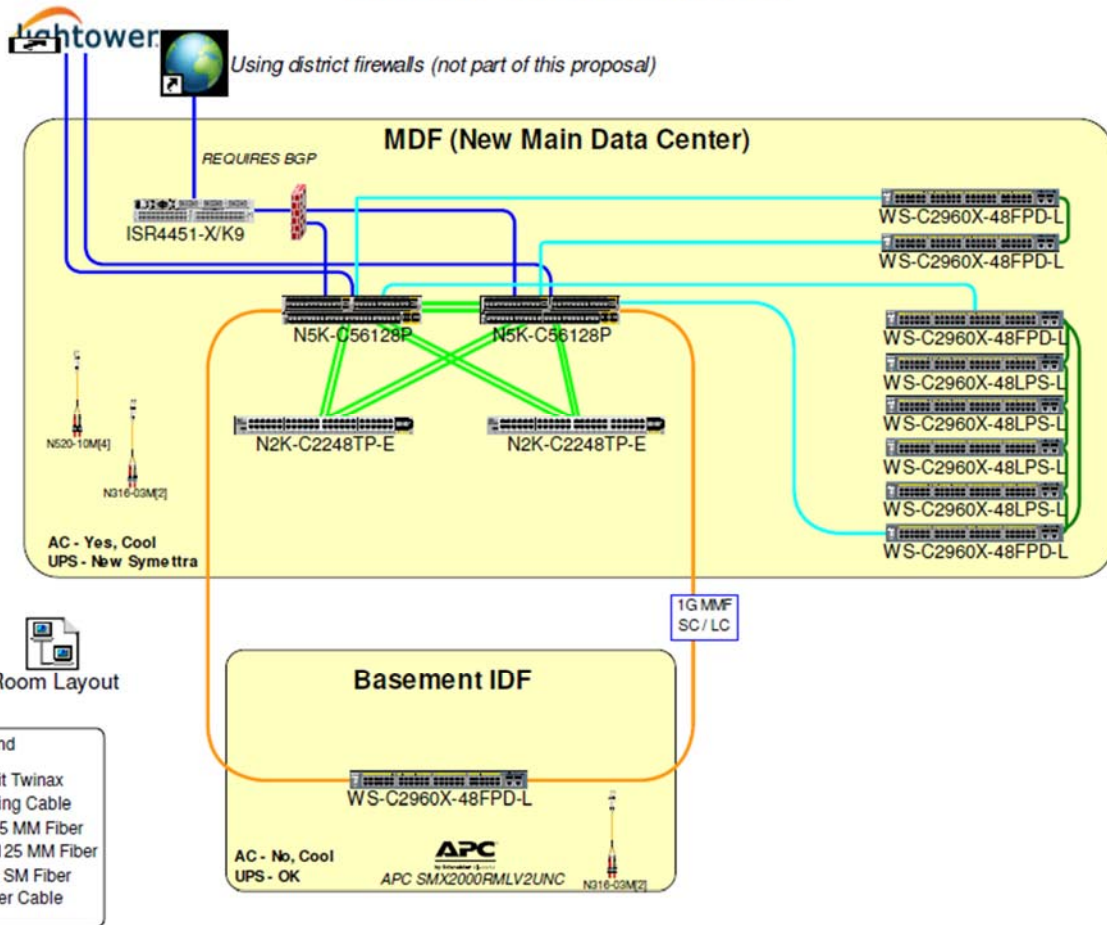
APC AP7932[10]



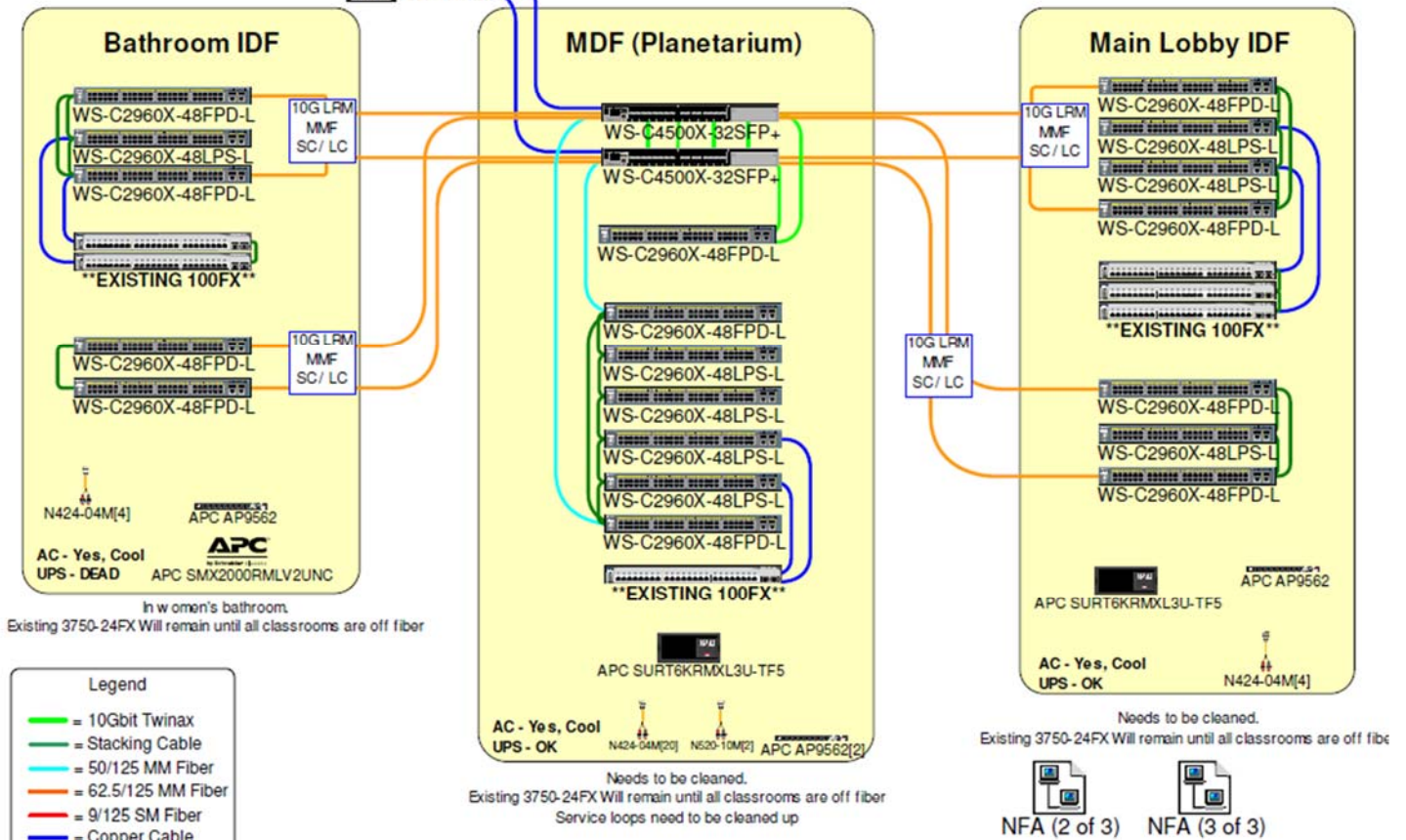
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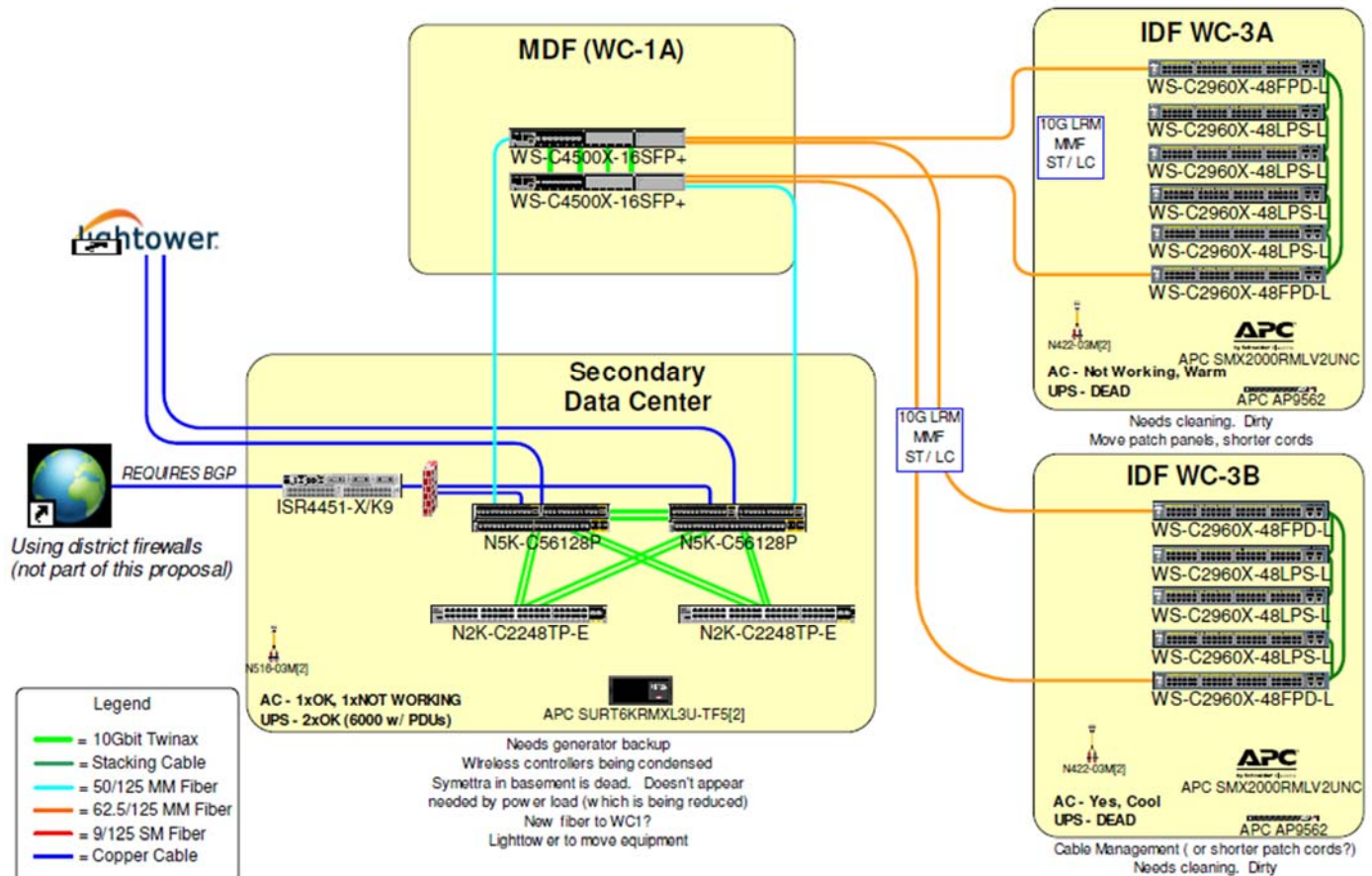
Board of Education



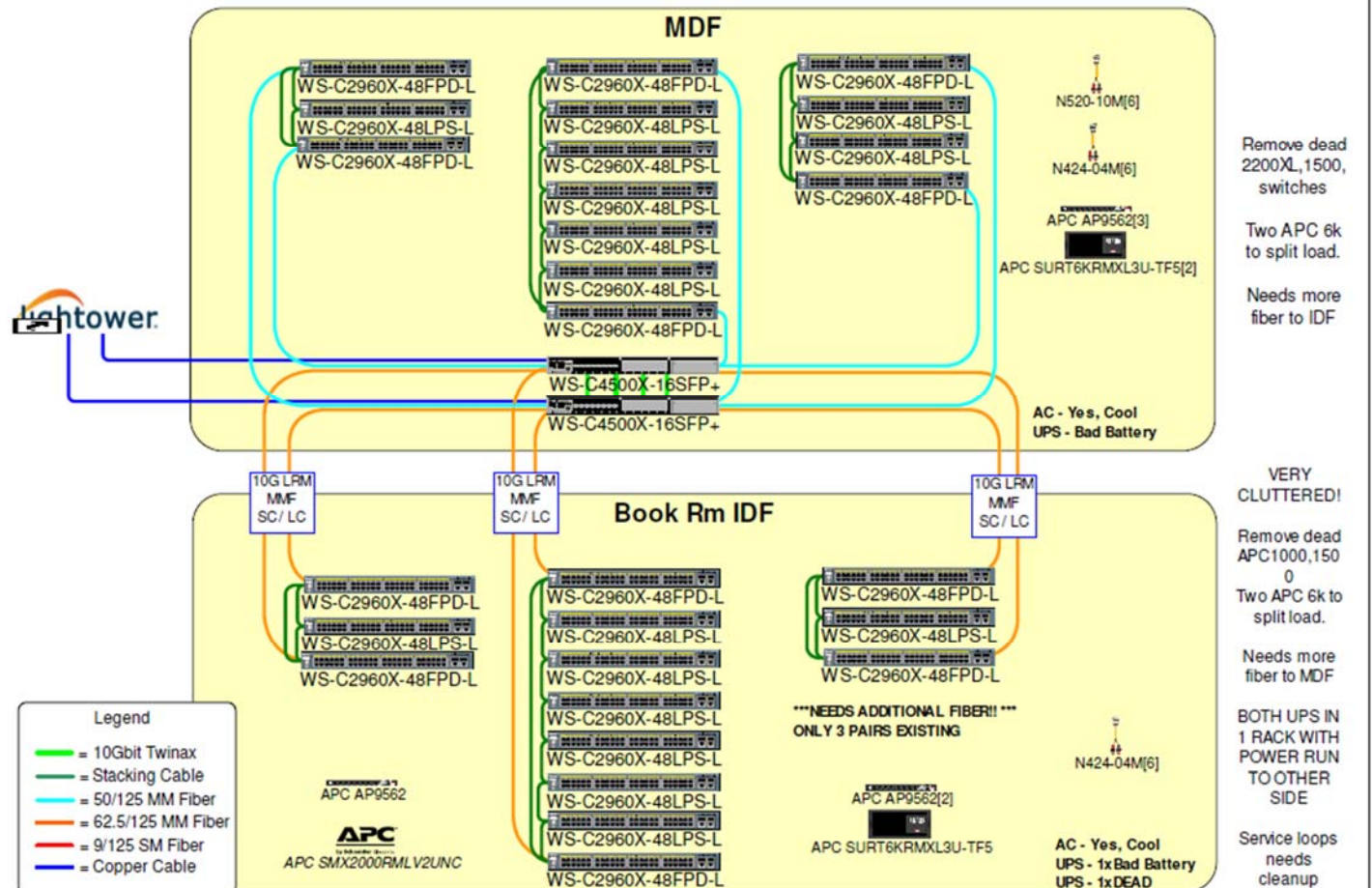
Newburgh Free Academy (1 of 3)



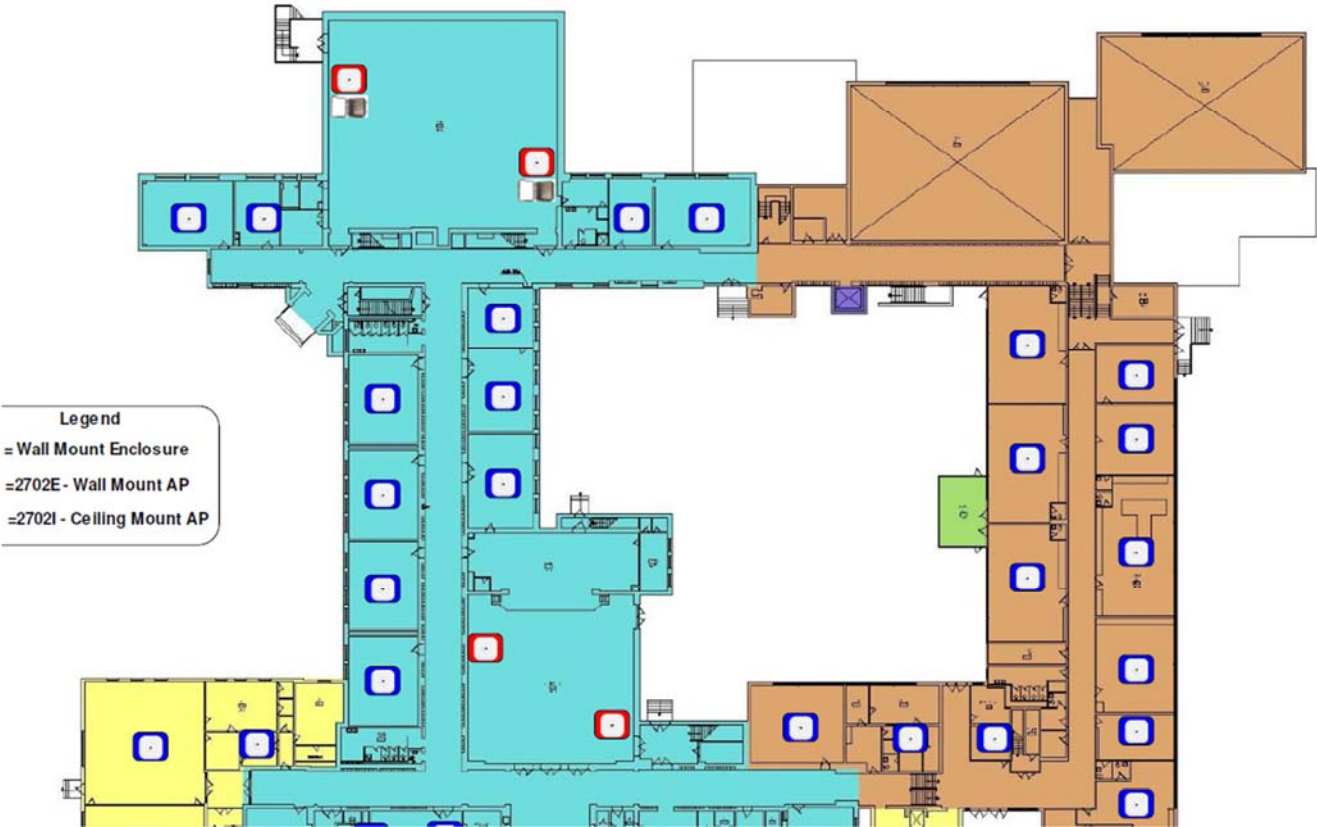
Heritage Middle School WC-3s and Data Center



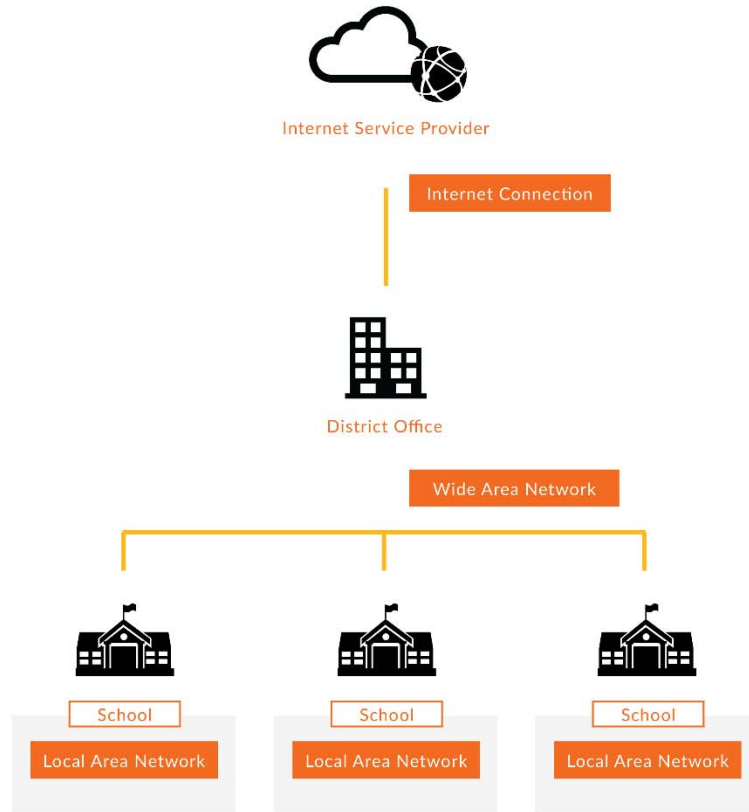
South Middle School



South - 1st Floor



Typical school district network.



Internet Connection.

The network connection to an Internet Service Provider (ISP) that provides connectivity to the broader Internet

Wide Area Network.

The network connections between district locations, including the school campuses, district offices, and any support buildings

Local Area Network.

The network connections within a school or district building, including both wired connections and the equipment used to provide Wi-Fi service

Children's Internet Protection Act

Background

The Children's Internet Protection Act (CIPA) is a federal law enacted by Congress to address concerns about access to offensive content over the Internet on school and library computers. CIPA imposes certain types of requirements on any school or library that receives funding for Internet access or internal connections from the E-rate program – a program that makes certain communications technology more affordable for eligible schools and libraries. In early 2001, the FCC issued rules implementing CIPA. More recently, Congress enacted additional protections for children using the Internet.

What CIPA Requires

- Schools and libraries subject to CIPA may not receive the discounts offered by the E-rate program unless they certify that they have an Internet safety policy and technology protection measures in place. An Internet safety policy must include technology protection measures to block or filter Internet access to pictures that are: (a) are obscene, (b) child pornography, or (c) harmful to minors (for computers that are accessed by minors).
- Schools and libraries must also certify that, as part of their Internet safety policy, they are educating minors about appropriate online behavior, including cyber bullying awareness and response and interacting with other individuals on social networking sites and in chat rooms.
- Schools subject to CIPA are required to adopt and enforce a policy to monitor online activities of minors.
- Schools and libraries subject to CIPA are required to adopt and implement a policy addressing: (a) access by minors to inappropriate matter on the Internet; (b) the safety and security of minors when using electronic mail, chat rooms, and other forms of direct electronic communications; (c) unauthorized access, including so-called "hacking," and other unlawful activities by minors online; (d) unauthorized disclosure, use, and dissemination of personal information regarding minors; and (e) restricting minors' access to materials harmful to them.

Schools and libraries are required to certify that they have their safety policies and technology in place before receiving E-rate funding. CIPA does not affect E-rate funding for schools and libraries receiving discounts only for telecommunications, such as telephone service. An authorized person may disable the blocking or filtering measure during any use by an adult to enable access for bona fide research or other lawful purposes.

COMPUTER NETWORK USE ENGLISH VERSION

POLICY:
Newburgh Board of Education

No. 8200
OPERATIONS
Computer Network System Use

Computer Network System Use

The Board of Education of the Newburgh Enlarged City School District is committed to the goal of improved student learning and effective teaching. The Board believes that access to computer networks, including the Internet and other technologies, can be an effective and valuable educational and research tool. The Board further believes that the computer network system, through software applications, online databases, bulletin boards and the Internet, and emerging features and uses of an electronic network, will significantly enhance student learning, as well as provide local, statewide, national and global communications opportunities for staff and students. Therefore, it is the policy of the Board to support and encourage the use of computers and computer-related technology in order to support open research and education in the District. The use of the computer network system for other purposes, including but not limited to for-profit or commercial activity, personal business or illegal activity is prohibited.

All users of the District's computer network system, including but not limited to electronic equipment, electronic mail and the Internet, must understand that use is a privilege, not a right, and that such use entails responsibility on the part of the user. Computer access will be provided by the District to all students and staff members in accordance with this Policy. In order to assure the integrity of the computer network system in the District, each account holder must agree to act responsibly and to comply with this Policy and its implementing Regulations. Any parent/guardian who does not want his/her child to have access to the District's computer network system must notify the District in writing. The Superintendent of Schools shall develop rules and regulations governing the use and security of the District's computer network system.

Teacher Web Pages

All web pages residing on a District-supported server or service are the property of the Newburgh Enlarged City School District. Commercial use, use for the pursuit of personal or financial gain, advertising, soliciting, as well as use for any personal purpose are prohibited. The Superintendent of Schools and/or his/her designee may suspend webpage access at any time if an individual fails to adhere to the protocol or requirements stated herein. Each teacher/staff is responsible for the content posted on his/her webpage hosted on the District-supported servers/services and will follow all District procedures. Teacher web pages may link only to sites that are of educational significance and sites relating to the curriculum and activities of the District.

Internet Safety

Internet access is provided with the understanding that the District cannot control the content available on the Internet. While the vast majority of sites available provide a wealth of useful information to staff and students, some sites may contain information that is inaccurate, offensive, defamatory or otherwise inappropriate for students. The District does not condone or permit the use of such materials in the school environment and makes good faith efforts to limit access by students to such inappropriate materials.

The Board directs the Superintendent of Schools to procure and implement the use of technology protection measures that block or filter Internet access by:

- adults to visual depictions that are obscene or child pornography, and

- minors to visual depictions that are obscene, child pornography, or harmful to minors, as defined in the Children's Internet Protection Act.

Upon the approval of the Superintendent or his/her administrative designee, any such measures may be disabled or relaxed for staff members conducting bona fide investigations in accordance with criteria established by the Superintendent or his/her designee.

The Superintendent or his/her designee also shall develop and implement procedures that provide for the safety and security of students using direct electronic communications; monitoring the online activities of students using district computers; and restricting student access to materials that are harmful to minors.

In addition, the Board prohibits the unauthorized disclosure, use and dissemination of personal information regarding students; unauthorized online access or other unlawful activities; and access to inappropriate matter on the Internet and World Wide Web.¹ The Superintendent or his or her designee shall establish and implement procedures that enforce these restrictions.

The computer network coordinator shall monitor and examine all district computer network activities to ensure compliance with this policy and accompanying regulation. He or she also shall be responsible for ensuring that staff and students receive training on their requirements.

All users of the district's computer network, including access to the Internet and World Wide Web, must understand that use is a privilege, not a right, and that any such use entails responsibility. They must comply with the requirements of this policy and accompanying regulation, in addition to generally accepted rules of network etiquette, and the district's

¹ In accordance with the Children's Internet Protection Act,

- *Child pornography* refers to any visual depiction, including any photograph, film, video, picture or computer or computer generated image or picture, whether made or produced by electronic, mechanical, or other means, of sexually explicit conduct, where the production of such visual depiction involves the use of a minor engaging in sexually explicit conduct. It also includes any such visual depiction that (a) is, or appears to be, of a minor engaging in sexually explicit conduct; or (b) has been created, adapted or modified to appear that an identifiable minor is engaging in sexually explicit conduct; or (c) is advertised, promoted, presented, described, or distributed in such a manner that conveys the impression that the material is or contains a visual depiction of a minor engaging in sexually explicit conduct.
- *Harmful to minors* means any picture, image, graphic image file, or other visual depiction that (a) taken as a whole and with respect to minors, appeals to a prurient interest in nudity, sex, or excretion; (b) depicts, describes or represents, in a patently offensive way with respect to what is suitable for minors, an actual or simulated sexual act or sexual contact, actual or simulated normal or perverted sexual acts, or a lewd exhibition of the genitals; and (c) taken as a whole, lacks serious literary, artistic, political, or scientific value as to minors.

acceptable use policy. Failure to comply may result in disciplinary action including, but not limited to, the suspension or revocation of computer access privileges.

The district shall also provide age-appropriate instruction regarding appropriate online behavior, including:

1. interacting with other individuals on social networking sites and in chat rooms, and
2. cyberbullying awareness and response.

Instruction will be provided even if the district prohibits students from accessing social networking sites or chat rooms on district computers.

Privacy

Users acknowledge that the network administrator may periodically need to review on-line activities in the course of performing routine maintenance of the system. Users further acknowledge that if there is reasonable suspicion of a user having violated this Policy or its implementing regulations, or any applicable law, the network administrator and/or appropriate school official may require access to his/her files, including private correspondence and private files, to review on-line activities. Any administrator reviewing such files in accordance with this Policy shall not be subject to any claims arising out of such review.

The School District, however, prohibits the unauthorized disclosure, use and dissemination of personal information regarding minors by its officers, employees or agents.

Failure by any user to comply with District policy or regulations regarding the use of the computer network system may result in suspension and/or revocation of computer access and/or related privileges. Further, a breach in the terms of this Policy and Regulations may be considered an act of insubordination, which may result in disciplinary action in accordance with law, and applicable collectively negotiated agreements and legal action where appropriate.

PÓLIZA:**La Junta de Educación de Newburgh****No. 8200****OPERACIONES****USO DEL SISTEMA DE LA RED INFORMÁTICA***Uso del Sistema de la Red de Informática*

La Junta de Educación del Distrito Escolar Extendido de la Ciudad de Newburgh está comprometida con la meta de mejorar el aprendizaje y ofrecer una enseñanza eficaz. La Junta cree que el acceso a las redes informáticas, incluyendo el Internet y otras tecnologías, pueden ser una herramienta educativa y de investigación eficaz y valiosa. La Junta también cree que el sistema de la red de computadoras, a través de aplicaciones de programas de informática, bases de datos en el Internet, tableros de anuncios, características emergentes y usos de una red electrónica, mejorarán significativamente el aprendizaje de los estudiantes, así como proporcionarán oportunidades de comunicación local, estatal, nacional y global para el personal y los estudiantes. Por lo tanto, es la política de la Junta el apoyar y fomentar el uso de computadoras y tecnología relacionadas con las computadoras con el fin de apoyar la investigación abierta y la educación en el distrito. Se prohíbe el uso del sistema de la red de informática para otros fines, incluyendo pero no limitado a fines de lucro o actividades comerciales, asuntos personales o actividades ilegales.

Todos los usuarios del sistema de la red de computadoras del distrito, incluyendo pero no limitado a equipos electrónicos, correo electrónico e Internet, deben comprender que el uso es un privilegio, no un derecho, y dicha utilización implica responsabilidad por parte del usuario. Se proporcionará acceso a una computadora por el distrito para todos los estudiantes y los miembros del personal conforme a esta póliza. Con el fin de asegurar la integridad del sistema de la red del equipo en el distrito, cada titular de cuenta debe aceptar actuar responsablemente y cumplir con esta póliza y su normativa de desarrollo. Cualquier padre o tutor que no quiere que su niño tenga acceso al sistema de la red de computadoras del distrito deberá notificar al distrito por escrito. El superintendente de las escuelas deberá desarrollar las normas y reglamentos que rigen el uso y la seguridad del sistema de la red de computadoras del distrito.

La Página Web del Maestro

Todas las páginas web que residen en un servidor apoyado por el distrito o servicio son propiedad del Distrito Escolar Extendido de la Ciudad de Newburgh. Se prohíbe el uso comercial, uso para la búsqueda del beneficio personal o financiero, publicidad, solicitudes, así como el uso para cualquier propósito personal. El superintendente de las escuelas o su designado puede suspender el acceso al Internet en cualquier momento si un individuo es incapaz de cumplir con el protocolo o requisitos establecidos en el presente. Cada maestro y el personal son responsables por el contenido publicado en su página web alojada en los servidores y servicios respaldados por el distrito y seguirá todos los procedimientos del distrito. La página web del maestro puede enlazar sólo a páginas web que tengan trascendencia educativa y que estén relacionadas con el plan de estudios y actividades del distrito.

La Seguridad en el Internet

El acceso al Internet es proporcionado con el entendimiento de que el distrito no puede controlar el contenido disponible en el Internet. Mientras que la gran mayoría de las páginas web disponibles proporcionan una amplia variedad de información útil para los profesores y los alumnos, algunas páginas pueden contener información que es inexacta, ofensiva, difamatoria u otra manera inadecuada para los estudiantes. El distrito no condona ni permite el uso de dichos materiales en el entorno escolar y hace esfuerzos de buena fe para limitar el acceso de los estudiantes a tales materiales inapropiados.

La Junta Directiva rige al superintendente de las escuelas para adquirir e implementar el uso de medidas de protección tecnológicas que bloquean o filtran el acceso al Internet a través de:

- representaciones visuales de adultos que son obscenas o de pornografía infantil, y
- representaciones visuales de menores que son obscenas, de pornografía infantil, o perjudiciales para los menores, tales como se define en la Ley para la Protección de los Niños en el Internet.

Tras la aprobación del superintendente o su designado administrativo, cualquiera de estas medidas puede ser desactivada o liberada a los funcionarios de investigaciones auténticas según criterios establecidos por el superintendente o su designado.

El superintendente o su designado también deberá desarrollar e implementar procedimientos que proporcionen la protección y la seguridad de los estudiantes mediante comunicaciones electrónicas directas; monitoreo de las actividades en línea de los estudiantes utilizando computadoras del distrito; y restringir el acceso de estudiantes a los materiales que son perjudiciales para los menores de edad.

Además, la Junta Directiva prohíbe la divulgación no autorizada, uso y divulgación de información personal acerca de los estudiantes; acceso no autorizado en línea u otras actividades ilícitas; y el acceso a material inadecuado en el Internet y la World Wide Web.^[1] El superintendente o su designado deberá establecer e implementar procedimientos que hacen cumplir estas restricciones.

El coordinador de la red informática supervisará y examinará todas las actividades de la red de las computadoras del distrito para garantizar el cumplimiento de esta póliza y regulación de acompañamiento. Él o ella también será responsable de asegurar que el personal y los estudiantes reciban entrenamiento sobre sus requerimientos.

Todos los usuarios de la red de computadoras del distrito, incluyendo el acceso al Internet y al World Wide Web, deben entender que el uso es un privilegio, no un derecho, y que cualquier uso conlleva responsabilidad. Ellos deben cumplir con los requisitos de esta póliza y regulación de acompañamiento, además de las reglas de etiqueta de la red generalmente aceptada y póliza de uso aceptable del distrito. El incumplimiento puede resultar en acción disciplinaria, incluyendo, pero sin limitarse a, la suspensión o revocación de los privilegios de acceso de computadora.

El distrito también deberá proporcionar instrucción apropiada para la edad con respecto a un comportamiento adecuado en línea, incluyendo:

1. interactuar con otras personas en las páginas web de redes sociales y en salas de charlas ("chat rooms"), y
2. conocimiento y respuesta a acoso cibernético ("cyberbullying").

Se proveerá instrucción aun cuando el distrito prohíbe a los estudiantes que tengan acceso a las páginas web de redes sociales o salas de charlas (“chat rooms”) en computadoras del distrito.

La Privacidad

El usuario reconoce que el administrador de la red puede necesitar periódicamente revisar las actividades en línea (“online”) en el curso de mantenimiento rutinario del sistema. Además el usuario reconoce que si hay una sospecha razonable de un usuario haber violado esta póliza o su normativa de desarrollo o cualquier ley aplicable, el administrador de la red o el oficial escolar asignado puede requerir acceso a sus archivos, incluyendo correspondencia privada y archivos privados, para revisar las actividades en línea. Cualquier administrador que revise dichos archivos de conformidad con esta póliza no podrá ser objeto de cualquier reclamación que surja de dicha revisión.

El distrito escolar, sin embargo, prohíbe la divulgación no autorizada, uso y divulgación de información personal sobre menores por parte de sus oficiales, empleados o funcionarios.

Incumplimiento por cualquier usuario de la póliza del distrito o regulaciones sobre el uso del sistema de la red del equipo, puede resultar en la suspensión o revocación de acceso a una computadora o privilegios relacionados. Además, una violación de los términos de esta póliza y normativa puede considerarse un acto de insubordinación, que puede resultar en acción disciplinaria conforme a la ley y aplicable a los acuerdos colectivamente negociados y acciones legales cuando sea apropiado.

^[1] según la Ley de Protección de Internet de los Niños,

- *Pornografía infantil* se refiere a cualquier representación visual, incluyendo cualquier fotografía, película, video, foto o computadora o computadora que genera imagen o foto, hecho o producido por medio electrónico, mecánico u otro, de conducta sexualmente explícita, donde la producción de dicha representación visual implica el uso de una menor participación en conducta sexualmente explícita. También incluye cualquier representación visual que (a) es o parece ser, de una menor participación en comportamiento sexualmente explícito; o (b) ha sido creada, adaptada o modificada para parecer una menor participación identificable a una conducta sexualmente explícita; o (c) es publicitada, promovida, presentada, descrita o distribuida de tal manera que transmite la impresión de que el material es o contiene una representación visual de un menor de edad participando en una conducta sexualmente explícita.
- *Nocivo para los menores de edad* significa cualquier foto, imagen, archivo de imagen gráfica u otra representación visual que (a) tomadas en su conjunto y con respecto a los menores de edad, hace un llamamiento a un interés lascivo en desnudez, sexo o excreción; (b) representa, describe o representa, de manera claramente ofensiva con respecto a lo que es apto para menores de edad, un acto sexual real o simulado o contacto sexual, actos sexuales normales o pervertidos reales o simulados o una exhibición lasciva de los genitales; y (c) tomado en su conjunto, que carecen de valor literario, artístico, político o científico en cuanto a los menores de edad.

APPENDIX D

NEWBURGH FREE LIBRARY TECHNOLOGY RESOURCES

Technology for Youth available through the Newburgh Free Library

ACCESS	4 Children's Computer Stations, up to age 11	Internet Microsoft Office Print (color printing available)	NFL
	3 AWE Learning Stations	Learning games for PreK to Grade 5 levels	NFL
	4 Teen Computer Stations, ages 12-15 (over age 16 use computers on Reference Level)	Internet Microsoft Office Print (color printing available)	NFL
	Wi-Fi	Open network for any Wi-Fi enabled device (Town Branch Password Protected)	NFL, NFT
RESOURCES	Digital and E-Books	Overdrive : RCLS and NFL materials available for download to a variety of devices in many formats: eBooks, audio and video	Website, through the Catalog
	Subscription Reference Databases	Access to 27,685+ journals and magazines Specialize subject content (i.e. language learning)	Website under " Research & Info "
	Reference eBooks	Searchable digital reference books	Website under " Research & Info "

	Children's eBooks & Digital Books	Subscription and purchased digital books: some <ul style="list-style-type: none"> • “readable” (i.e. click to flip pages) • multilingual/ ESL-friendly • Common Core aligned • interactive/enhanced 	Website under “Youth Services, School-Age”
	LibGuide on Research Databases for Students	“How to” guide on researching Elementary, Middle, High School leveled resource listing	Website under “Youth Services”

Framework for Teaching – Instructional Specialists (Teachers on Special Assignment (TOSAs))

Charlotte Danielson, 2007

Figure 5.1

Domain 1: Planning and Preparation				
Level of Performance				
COMPONENT	UNSATISFACTORY	BASIC	PROFICIENT	DISTINGUISHED
1a: Demonstrating knowledge of current trends in specialty area and professional development	Instructional specialist demonstrates little or no familiarity with specialty area or trends in professional development.	Instructional specialist demonstrates basic familiarity with specialty area and trends in professional development.	Instructional specialist demonstrates thorough knowledge of specialty area and trends in professional development.	Instructional specialist's knowledge of specialty area and trends in professional development is wide and deep; specialist is regarded as an expert by colleagues.
1b: Demonstrating knowledge of the school's program and levels of teacher skill in delivering that program	Instructional specialist demonstrates little or no knowledge of the school's program or of teacher skill in delivering that program.	Instructional specialist demonstrates basic knowledge of the school's program and of teacher skill in delivering that program.	Instructional specialist demonstrates thorough knowledge of the school's program and of teacher skill in delivering that program.	Instructional specialist is deeply familiar with the school's program and works to shape its future direction and actively seeks information as to teacher skill in that program.
1c: Establishing goals for the instructional support program appropriate to the setting and the teachers served	Instructional specialist has no clear goals for the instructional support program, or they are inappropriate to either the situation or the needs of the staff.	Instructional specialist's goals for the instructional support program are rudimentary and are partially suitable to the situation and the needs of the staff.	Instructional specialist's goals for the instructional support program are clear and are suitable to the situation and the needs of the staff.	Instructional specialist's goals for the instructional support program are highly appropriate to the situation and the needs of the staff. They have been developed following consultations with administration and colleagues.
1d: Demonstrating knowledge of resources both within and beyond the school and district	Instructional specialist demonstrates little or no knowledge of resources available in the school or district for teachers to advance their skills..	Instructional specialist demonstrates basic knowledge of resources available in the school and district for teachers to advance their skills.	Instructional specialist is fully aware of resources available in the school and district and in the larger professional community for teachers to advance their skills.	Instructional specialist actively seeks out new resources from a wide range of sources to enrich teachers' skills in implementing the school's program.
1e: Planning the instructional support program, integrated with the overall school program	Instructional specialist's plan consists of a random collection of unrelated activities, lacking coherence or an overall structure.	Instructional specialist's plan has a guiding principle and includes a number of worthwhile activities, but some of them don't fit with the broader goals.	Instructional specialist's plan is well designed to support teachers in the improvement of their instructional skills.	Instructional specialist's plan is highly coherent, taking into account the competing demands of making presentations and consulting with teachers, and has been developed following consultation with administrators and teachers.
1f: Developing a plan to evaluate the instructional support program	Instructional specialist has no plan to evaluate the program or resists suggestions that such an evaluation is important.	Instructional specialist has a rudimentary plan to evaluate the instructional support program.	Instructional Support Specialist's plan to evaluate the program is organized around clear goals and the collection of evidence to indicate the degree to which the goals have been met.	Instructional specialist's evaluation plan is highly sophisticated, with imaginative sources of evidence and a clear path toward improving the program on an ongoing basis.

Framework for Teaching – Instructional Specialists (Teachers on Special Assignment (TOSAs))

Charlotte Danielson, 2007

Figure 5.2

Domain 2: The Environment				
Level of Performance				
COMPONENT	UNSATISFACTORY	BASIC	PROFICIENT	DISTINGUISHED
2a: Creating an environment of trust and respect	Teachers are reluctant to request assistance from the Instructional specialist, fearing that such a request will be treated as a sign of deficiency.	Relationships with the Instructional specialist are cordial; teachers don't resist initiative established by the Instructional specialist.	Relationships with the Instructional specialist are respectful, with some contacts initiated by teachers.	Relationships with the Instructional specialist are highly respectful and trusting with many contacts initiated by teachers.
2b: Establishing a culture for ongoing instructional improvement	Instructional specialist conveys the sense that the work of improving instruction is externally mandated and is not important to school improvement.	Teachers do not resist the offerings of support from the Instructional specialist.	Instructional specialist promotes a culture of professional inquiry in which teachers seek assistance in improving their instructional skills.	Instructional specialist has established a culture of professional inquiry in which teachers initiate projects to be undertaken with the support of the specialist.
2c: Establishing clear procedures for teachers to gain access to instructional support	When teachers want to access assistance from the Instructional specialist, they are not sure how to go about it.	Some procedures (for example, registering for workshops) are clear to teachers, whereas others (for example, receiving informal support) are not.	Instructional specialist has established clear procedures for teachers to use in gaining access to support.	Procedures for access to instructional support are clear to all teachers and have been developed following consultation with administrators and teachers.
2d: Establishing and maintaining norms of behavior for professional interactions	No norms of professional conduct have been established; teachers are frequently disrespectful in their interactions with one another.	Instructional specialist's efforts to establish norms of professional conduct are partially successful.	Instructional specialist has established clear norms of mutual respect for professional interaction.	Instructional specialist has established clear norms of mutual respect for professional interaction. Teachers ensure that their colleagues adhere to these standards of conduct.
2e: Organizing physical space for workshops or training	Instructional specialist makes poor use of the physical environment, resulting in poor access by some participants, time lost due to poor use of training equipment, or little alignment between the physical arrangement and the workshop activities.	The physical environment does not impede workshop activities.	Instructional specialist makes good use of the physical environment, resulting in engagement of all participants in the workshop activities.	Instructional specialist makes highly effective use of the physical environment, with teachers contributing to the physical arrangement.

Framework for Teaching – Instructional Specialists (Teachers on Special Assignment (TOSAs))

Charlotte Danielson, 2007

Figure 5.3

Domain 3: Delivery of Service				
Level of Performance				
COMPONENT	UNSATISFACTORY	BASIC	PROFICIENT	DISTINGUISHED
3a: Collaborating with teachers in the design of instructional units and lessons	Instructional specialist declines to collaborate with classroom teachers in the design of instructional lessons and units.	Instructional specialist collaborates with classroom teachers in the design of instructional lessons and units when specifically asked to do so.	Instructional specialist initiates collaboration with classroom teachers in the design of instructional lessons and units.	Instructional specialist initiates collaboration with classroom teachers in the design of instructional lessons and units, locating additional resources from sources outside the school.
3b: Engaging teachers in learning new instructional skills	Teachers decline opportunities to engage in professional learning.	Instructional specialist's efforts to engage teachers in professional learning are partially successful, with some participating.	All teachers are engaged in acquiring new instructional skills.	Teachers are highly engaged in acquiring new instructional skills and take initiative in suggesting new areas for growth.
3c: Sharing expertise with staff	Instructional specialist's model lessons and workshops are of poor quality or are not appropriate to the needs of teachers being served.	The quality of the Instructional specialist's model lessons and workshops is mixed, with some of them being appropriate to the needs of the teachers being served.	The quality of the Instructional specialist's model lessons and workshops is uniformly high and appropriate to the needs of the teachers being served.	The quality of the Instructional specialist's model lessons and workshops is uniformly high and appropriate to the needs of the teachers being served. The Instructional specialist conducts extensive follow-up work with teachers.
3d: Locating resources for teachers to support instructional improvement	Instructional specialist fails to locate resources for instructional improvement for teachers, even when specifically requested to do so.	Instructional specialist's efforts to locate resources for instructional improvement for teachers are partially successful, reflecting incomplete knowledge of what is available.	Instructional specialist locates resources for instructional improvement for teachers when asked to do so.	Instructional specialist is highly proactive in locating resources for instructional improvement for teachers, anticipating their needs.
3e: Demonstrating flexibility and responsiveness	Instructional specialist adheres to his plan, in spite of evidence of its inadequacy.	Instructional specialist makes modest changes in the support program when confronted with evidence of the need for change.	Instructional specialist makes revisions to the support program when it is needed.	Instructional specialist is continually seeking ways to improve the support program and makes changes as needed in response to student, parent, or teacher input.

Framework for Teaching – Instructional Specialists (Teachers on Special Assignment (TOSAs))

Charlotte Danielson, 2007

Figure 5.4

Domain 4: Professional Responsibilities				
Level of Performance				
COMPONENT	UNSATISFACTORY	BASIC	PROFICIENT	DISTINGUISHED
4a: Reflecting on practice	Instructional specialist does not reflect on practice, or the reflections are inaccurate or self-serving.	Instructional specialist's reflection on practice is moderately accurate and objective without citing specific examples and with only global suggestions as to how it might be improved.	Instructional specialist's reflection provides an accurate and objective description of practice, citing specific positive and negative characteristics. Instructional specialist makes some specific suggestions as to how the support program might be improved.	Instructional specialist's reflection is highly accurate and perceptive, citing specific examples. Instructional specialist draws on an extensive repertoire to suggest alternative strategies, accompanied by a prediction of the likely consequences of each.
4b: Preparing and submitting budgets and reports	Instructional specialist does not follow established procedures for preparing budgets and submitting reports. Reports are routinely late..	Instructional specialist's efforts to prepare budgets are partially successful, anticipating most expenditures and following established procedures. Reports are sometimes submitted on time.	Instructional specialist's budgets are complete, anticipating all expenditures and following established procedures. Reports are always submitted on time.	Instructional specialist anticipates and responds to teacher needs when preparing budgets, following established procedures and suggesting improvements to those procedures. Reports are submitted on time.
4c: Coordinating work with other Instructional specialists	Instructional specialist makes no effort to collaborate with other instructional specialists within the district.	Instructional specialist responds positively to the efforts of other instructional specialists within the district to collaborate.	Instructional specialist initiates efforts to collaborate with other instructional specialists within the district..	Instructional specialist takes a leadership role in coordinating projects with other instructional specialists within and beyond the district.
4d: Participating in a professional community	Instructional specialist's relationships with colleagues are negative or self-serving, and specialist avoids being involved in school and district events and projects.	Instructional specialist's relationships with colleagues are cordial, and the specialist participates in school and district events and projects when specifically requested.	Instructional specialist participates actively in school and district events and projects and maintains positive and productive relationships with colleagues.	Instructional specialist makes a substantial contribution to school and district events and projects and assumes a leadership role with colleagues.
4e: Engaging in professional development	Instructional specialist does not participate in professional development activities even when such activities are clearly needed for the enhancement of skills.	Instructional specialist's participation in professional development activities is limited to those that are convenient or are required.	Instructional specialist seeks out opportunities for professional development based on an individual assessment of need.	Instructional specialist actively pursues professional development opportunities and makes a substantial contribution to the profession through such activities as participating in state or national conferences for other specialists.
4f: Showing professionalism, including integrity and confidentiality	Instructional specialist displays dishonesty in interactions with colleagues and violates norms of confidentiality.	Instructional specialist is honest in interactions with colleagues and respects norms of confidentiality.	Instructional specialist displays high standards of honesty and integrity in interactions with colleagues and respects norms of confidentiality.	Instructional specialist can be counted on to hold the highest standards of honesty and integrity and takes a leadership role with colleagues in respecting the norms of confidentiality.

Newburgh Enlarged City School District
Job Description

TITLE:	School Based Technology Facilitator (TOSA)
REPORTS TO:	Building Principal
QUALIFICATIONS:	<ul style="list-style-type: none"> • New York State Educational Technology certification, preferred; New York State teacher certification required. • Master's Degree required • Three to five years of classroom experience required. • Demonstrated proficiency in the utilization of educational software programs; experience in the troubleshooting of computer and audio visual equipment
JOB GOAL:	<p>The School Based Technology Facilitator (TF) will be a key leader in training and supporting colleagues to integrate technology into their instruction. Working closely with classroom teachers, this individual will support the curriculum taught at each grade level. Additionally, they will be responsible for staff and faculty technology professional development as it aligns to the District's Technology Plan. The employee will assist in identifying, acquiring, and maintaining hardware, software, and network products. This individual will also facilitate the implementation of district and building-level technology plans.</p>
DUTIES AND RESPONSIBILITIES:	<ul style="list-style-type: none"> • Planning and Facilitating Teaching and Learning • Collaborates with teachers and other instructional staff to develop curriculum materials and specific lesson plans that integrate technology • Models the integration of technology in all curriculum areas • Facilitates school participation in technology programs and activities • Works with the building principal to schedule the use of the computer lab. • Conducts staff development in the areas of technology integration, the Common Core Learning Standards, the ISTE Standards for Teachers, Coaches and Administrators. • Collaborates with the school library media coordinator to provide leadership in the school's use of instructional technology resources to enhance learning • Follows a plan for professional development and actively seeks out opportunities to grow professionally

<p>DUTIES AND RESPONSIBILITIES continued</p>	<ul style="list-style-type: none"> • Planning and Facilitating Information Access and Delivery • Implements best practices related to technology use in the school program based on research, pilot programs, and state/national standards • Works with the principal and school leadership team to provide access to technology resources and services of the technology facilitator at point of need • Works with teachers and technology staff in the selection of resources that are compatible with the school technology infrastructure • Assists with planning the design of the technology infrastructure so that information resources are continually available to the school community • Promotes family, business, and community partnerships that support the academic success, career readiness, and general well-being of all children • Adheres to and communicates copyright as well as other laws and guidelines pertaining to the distribution and ethical use of all resources • Assists in maintaining hardware, software, and network infrastructure • Serves as the school contact for addressing hardware and software issues <ul style="list-style-type: none"> • Planning and Facilitating Program Administration • Leads, in partnership with the School Library Media Coordinator, the Media and Technology Advisory Committee in effective decision making to promote the media and technology program. • Collaborates with teachers, media and technology staff, and students to evaluate and select resources addressing curricular needs and learning goals • Plays a leading role in the school's budgetary process to ensure funding for the instructional technology program to support school-wide goals • Leads in the ongoing evaluation of the effectiveness of the instructional technology program • Prepares and submits accurate reports as required • Carries out non-instructional duties as assigned and/or as needed to ensure student safety
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Dr. Roberto Padilla

Superintendent of Schools

Mr. Ed Forgit
 Ms. Mary Ellen Leimer
 Ms. Marianne Heslin
 Ms. Sara Felix

Deputy Superintendent
 Asst. Superintendent, Human Resources
 Asst. Superintendent, Finance
 Asst. Superintendent, Curriculum & Instruction

Application for Software Purchase

Please submit your completed form to the Technology Department Help Desk Coordinator

1. Person Requesting Software:	
2. Location of Software Install (i.e. Lab, Classrooms, District Wide, etc.):	
3. Funding source:	
4. Applicants' Building/Department	
5. Applicants' Building Administrator, Director, or Program Supervisor's Signature:	
6. Software or Service Title:	
Curriculum Area/ Department:	Type of Program/Instructional Use <input type="checkbox"/> Instructional <input type="checkbox"/> Productivity <input type="checkbox"/> Administrative <input type="checkbox"/> Other
Publisher:	
Version #:	
Sales person contact information (phone & e-mail):	
Publisher website:	
7. Define need for software or web-based subscription:	
Installation: <input type="checkbox"/> Single Workstation(s) <input type="checkbox"/> Server or Client/Server <input type="checkbox"/> Web-based Subscription <input type="checkbox"/> Other	
8. Initial Purchase price for software: \$	
Licensing Type:	Concurrent (simultaneous) Install – total number of Workstations
Number of licenses:	
If site license, what is the 'site' (eg. Department, building, entire district):	



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9. Recurring (renewal) cost (if applicable): \$		Monthly	Yearly
10. Funding source for cost:			
11. Hardware purchase Description: (if applicable):		Hardware cost (if applicable): \$	

12. Indicate the operating system(s) where the software will be installed.			
Windows	Mac	Chrome	Other

13. Recommended System Specifications (for client computer; be sure to indicate above if there is a server requirement) ** Please contact vendor for this information.				
Platform	Model or Processor	Operating System	RAM (MB)	Disk Storage (MB)
MS Windows				
Apple OS				
iOS				
Android				
Chrome OS				

14. List other requirements such as audio/video card specifications, headphones, microphones

15. Funding source for items listed above:

16. If Web based application/Service, web browser Requirements (Recommendations):
Firefox Chrome Internet Explorer Edge Other
Plug-in Requirements (eg. Flash Player, Shockwave, RealPlayer, Windows Media, QuickTime, Unity Player, etc.):
Minimum/Maximum Versions of above (IE Version 11 max/7 min):
Bandwidth Requirements:



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17. What other software did you evaluate and what selection criteria did you use for selecting this title?

Identify staff development requirements for end-users and technical staff; and what budget will be necessary for this (amount of \$ and time); and what method of instruction will be employed?

Identify the New York State Common Core Learning Standards Addressed (if applicable):