IRVINGTON PUBLIC SCHOOLS

Department of
Media Services and Technology

Technology Plan

2022-2027

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Vision Statement

We believe that people are empowered by their independent use of information technologies and the opportunities to share resources and interact in our local and global communities. In this technology driven age, we believe it is essential to prepare our students to work in an evolving, information-centered, global economy. It is critical that our students become proficient with the tools of information technology, given the rapid pace of technological change.

With the growth of information technology in all aspects of our lives; we believe all students and staff must be competent in using these tools to obtain information, to solve problems, and to effectively communicate.

We as educators must integrate these technology tools with new models of teaching that meet each student's individual learning style and help ensure that each student has an opportunity to become a lifelong learner. We believe the use of technology will be curriculum driven and should be infused into the total school environment. Irvington Public Schools will work to provide our students and staff with the resources, skills and instruction necessary to thrive in an increasingly technologically literate world.

John Amberg, Director
Media Services and Technology

Mission Statement

The Irvington Public School District remains committed to implementing technology as an integrated tool for governance, teaching and learning. Our primary goal is to provide students with exceptional learning experiences with the goal of providing greater equity and accessibility to high-quality, standards-based education. These transformational learning experiences will prepare our students for life and careers in a world of exponential change and instill the desire for lifelong learning. This commitment is based on the philosophy that technology literacy is an integral component of a balanced educational experience.

The Irvington Public School District's Technology Curriculum is aligned to and infuses the New Jersey Student Learning Standards across nine distinct content areas.

- **Career Readiness, Life Literacies & Key Skills**
- **Comprehensive Health & Physical Education**
- **Computer Science & Design Thinking**
- **English Language Arts**
- **Mathematics**
- **Science**
- **Social Studies**
- **Visual & Performing Arts**
- **World Languages**

Facilities Infrastructure Planning

In 2022, the district began an expansion of academic and office facilities, which has increased the need for technology infrastructure. The addition of new infrastructure and equipment related to these projects has begun, and is projected to continue over the span of this Five Year Plan.

RITA L. OWENS STEAM ACADEMY

The Rita L. Owens S.T.E.A.M. Academy will require the deployment of the following technology infrastructure and assets. For the 2022-23 school year, the school will need to be integrated with the district WAN, which will require the purchase and installation of Servers, Switches, Access Points and related infrastructure equipment, such as wiring and drops. To secure technology equipment from possible flooding, the IDF will be moved out of the current basement location. This will additionally require the re-wiring of the building to run all connections from the new secure IDF room. Classrooms are receiving Cleartouch interactive panels while students are receiving a complement of Chromebooks. For the 23-24, 24-25 and 25-26 school years, the deployment of additional technology assets will continue as the school adds cohorts of students.

The S.T.E.A.M program emphasizes a commitment to excellence through individualized instruction, curriculum flexibility, and independent and collaborative student work. Self-directed students have a variety of opportunities to practice ever increasing amounts of responsibility and work/study habits. The program has been designed to foster respect for the individual, as well as others, and to assist students in growing academically, emotionally, socially and physically. Students are encouraged to grow to their fullest capacity, and to approach learning with confidence and joy. This is accomplished by empowering them to develop self-direction, independent thinking and responsibility.

The S.T.E.A.M curriculum implements New Jersey Student Learning Standards using project-based learning, which integrates science, math, engineering, technology, the arts, and the humanities. Learning tasks include manipulative materials, educational games, written tasks, individual or group projects, independent study and research activities.

Students may be found working independently or in flexible arrangements to facilitate learning the related concepts. Groups may be self-selected or assigned, interest or achievement-based. Groups will often be found at various learning stations throughout the learning center depending on their needs at the moment. The S.T.E.A.M staff recognizes that students learn easily if they are given considerable choice in selecting the materials they wish to pursue based on their personal interests. Thus, teaching procedures are adjusted to meet each student's needs, and to offer a variety of options for learning.

Students are encouraged to work at their personal level of mastery of the basic skills in Math, Reading and Writing. The use of the problem-based learning method as the primary delivery system of these subjects allows teachers to differentiate or adjust instruction for each individual learner.

164 ORANGE AVE

The facility is being refurbished as an office space for district departmental use. To facilitate its use as a district office space, the technology department is developing plans and reviewing costs for the installation of a microwave antenna system connected to Madison Ave, and the wiring of needed drops and network infrastructure for the space once the physical construction work on the building is completed. This installation is currently projected for the 2022-23, but delays with building refurbishment may move it to the subsequent fiscal year.

District Network Overview

The district presently supports 10GB/s Ethernet in most buildings over single mode and multimode fiber connecting the Main Data Framework (MDF) of each district building to each floor of that building. The connections to and from each building are 1GB/s .

- 1GB/s Metro Ethernet WAN connection.
- 10 Gigabit Ethernet over multi mode fiber connecting Intermediate Data Frameworks (IDF) to the MDF.
- Category 5e/6 wiring providing a minimum of one (average of 5) data drops to each instructional and administrative space.
- Backbone switching provided by Juniper switches.
- 60+ Juniper layer 2 switches providing 100/1000 desktop connectivity.
- Palo Alto Gen 2 Firewall to provide inspection of all incoming and outgoing packets
- 25 network and application servers.
- Local and network printing available in all administrative and instructional areas.
- Over 450 IP phones and 3 redundant servers running them linking the entire district into one phone system
- 2 redundant Voicemail Servers

Network Security

- Palo Alto Gen 2 Firewall to provide inspection of all incoming and outgoing packets
- We have a Chromebook Wireless SSID that handles all existing chromebooks which are programmed to seek and connect to.
- We have a staff Wireless network that staff can log in using their desktop and Filter usernames and passwords
- We have a guest Wireless SSID for visitors when coming onsite.

NEW WEB FILTER

We use GoGuardian which is a school management solution for educators and academic organizations to engage and monitor students. The cloud-based school technology program helps institutions to digitize the learning experience for students through classroom management, behavioral monitoring, network filtering, mental health checks, device management and suicide prevention.

COMPLETED PROJECTS

In order to meet future technological demands, new switches from Juniper were purchased for the entire district. Additionally, we have moved our Ethernet Virtual Private Line to Comcast with speeds up to 1GB/s between buildings. The increased speed along with the new switches will allow streaming video and software to be run throughout the district without any interruptions to service.

TRANSITION TO HOSTED SOLUTIONS

- Powerschool Student Information System
- Managed software deployment through Apple Remote Desktop and Merak
- Payroll, Purchasing, Fund Accounting, Food Service billing and Human Resource systems.
- Internet web server, hosting the district website

KEY DISTRICT SOFTWARE AND SYSTEMS

- Powerschool Student Information System
- Enrollment Express Student Registration
- District and Student Email by Google for Education
- Google Classroom by Google for Education
- Active Directory Services – including DNS, DHCP, WINS, Group Policy Management
- Managed software deployment through Apple Remote Desktop and Meraki
- Managed Hosting, district website
- Oncourse Lesson Planning Software
- Recruiting and Hiring and Absence Management by Frontline
- Professional Growth and Evaluations by Frontline
- Clever SSO and Rostering
- Project Special
- EasyIEP
- EasyBridge for Math and Science by Savvas
- Wincap financial management and purchasing software
- Destiny Library Asset Management system
- NutriKids lunch management and payments system
- School Messenger communications software
- ReadingWonders for K-5
- MyMath, iReady
- ConnectEd
- Learning.com
- IXL
- BrainPOP
- Other additional curricular software

Educational Technology Plan Evaluation Narrative

Describe the process to regularly evaluate how: A. telecommunication services, hardware, software and other services are improving education.

Telecommunication services, hardware, software and other services will continuously be reviewed and evaluated by a number of accountability measures to ensure they are meeting the needs of our students. Surveys will be administered to staff and students throughout the school year and classroom walkthroughs will help our staff evaluate the needs of our students. Lesson plans will continue to be monitored and continuous sessions held between technology coaches and staff will allow the technology team to evaluate current needs.

Describe the process to regularly evaluate how: B. Effective integration of technology is enabling students to meet challenging state academic standards.

Our district mission statement states that we are committed to implementing technology as an integrated tool, to provide students with exceptional learning experiences that prepare them for life and careers in a world of exponential change and instill the desire for lifelong learning. In order to fulfill our mission statement, professional development will be a major focus district wide to ensure that our staff is prepared to integrate technology in their classrooms. Irvington teachers will learn how to integrate technology for the sole purpose of preparing our students to be proactive in the 21st Century.

Describe the process to regularly evaluate how: C. The LEA is meeting the identified goals in the educational technology plan.

The LEA will continue to evaluate the identified goals in the educational technology plan by viewing teacher lesson plans, using surveys ,and classroom walkthroughs. The LEA will continue to monitor current technologies available worldwide. By implementing the latest proven technologies, we will continue to prepare our students with lifelong skills.

Instructional Technology Hardware and Devices

In Irvington Public Schools there are 12,258 Chromebooks that are used by students on a daily basis along with a state testing set within each building. In order for future needs for NJSLA testing the district is exploring a 2:1 initiative at elementary schools for the 2022 - 2023 school year. This initiative will provide a student with one device in school and one device at home, eliminating the need of having a device travel between locations.

Irvington Public Schools currently has approximately 500 interactive whiteboards that consist of 204 SmartBoards, 294 ClearTouch panels and 2 Promethean boards The district is continuing to replace outdated SmartBoards with ClearTouch panels and this will continue over the 2022-27 timeframe.

The district has 727 Dell Optiplex All-In-One desktop machines for teachers and district staff. There are 73 iPads that are primarily used within the Special Services department. There are 38 multi-purpose copy machines that the district uses for our community printing initiative. There are 451 VOIP phones used throughout the district.

Device Type	Units
Chromebooks	12,258
Dell AIO's	727
iPads	73
VOIP Phones	451
Interactive Whiteboards	500
Multi-Purpose Copy Machines	38

ChromeBook Device Data

Inventory- 12,258 chromebooks in our ORG.
12,258 Chromebooks X $250.00= $3,064,500

Pending - 5,773 chromebooks pending to be added.

This is a count of all purchased Chromebooks since 2013

Number of ChromeBooks out of service	Current Device Status	Cost
2147	Chromebooks are deprovisioned	CB @ $250.00 X 2147 = $536,750
5386	Chromebooks that are disabled	CB @ $250.00 X 5386 = $1,346,500
753	Insurance Claims/Damaged	CB @ $250.00 X 753 = $188,250

CHROMEBOOK DEVICE STATUS

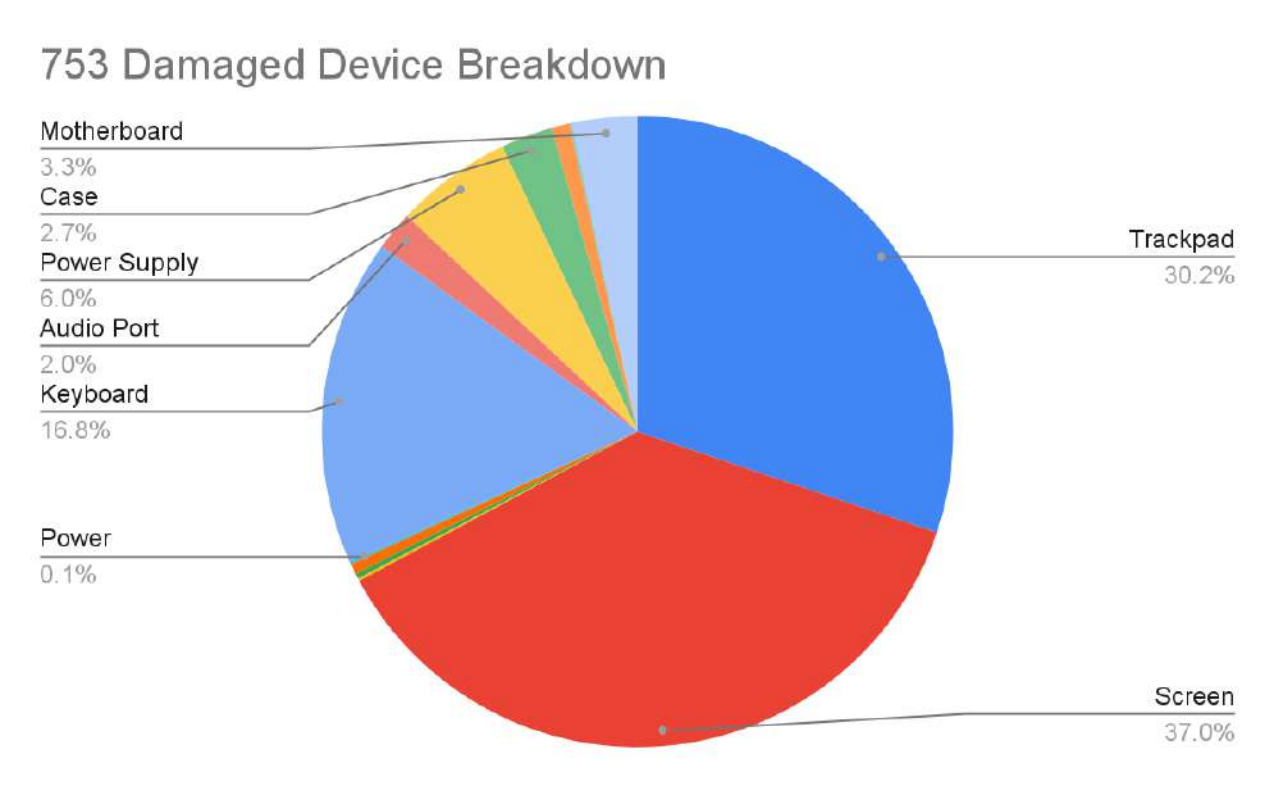
Current 2022 Inventory- 12,325 chromebooks throughout our Google Organization Unit

- **Pending 22-23 SY**
  5,773 devices to be delivered to district
- **Pending 23-24 SY**
  Projected need for 300 Chromebooks
- **Pending 24-25 SY**
  Projected need for 1600 Chromebooks
- **Pending 25-26 SY**
  Projected need for 3500 Chromebooks
- **Pending 26-27 SY**
  Projected need for 4600 Chromebooks

Chromebook End of Life Projections		
# OF CB's	*OS SUPPORT END DATE*	*COST*
82	2018	$20,500
1094	2021	$273,500
15	2022	$3,750
7	2023	$1,750
1273	2024	$318,250
3199	2025	$799,750
4280	2026	$1,070,000
3356	2027	$839,000
22	2028	$5,500

Total Cumulative Lost / Damaged Devices		
# OF CB DEVICES OUT OF SERVICE	*STATUS*	*VALUE*
2160	Chromebooks that are deprovisioned due to damage or end of life.	$540,000
5308	Chromebooks that are disabled due to loss, theft and end of life.	$1,327,000
753	Insurance Claims for Repair / Replacement	$188,250

Device Insurance / Damage Analysis



The majority of Chromebooks suffer damage or failure in the following areas:
37% - Screen • 30% - Trackpad • 17% - Keyboard • 16% - All Other Issues

Insurance Costs and Benefits 2021-2022

Insurance coverage per student/device is $22. We expect to continue to insure 8000 devices at a yearly cost of $176,000 per year. Based on the Jan-Jun insured period of the 2021-22 school year, we expect insurance claims to repair/replace approximately up to 1500 damaged devices per year.

Org Date	Number of CB	4 Years	Cost	OS Support End Date
2014	85	2018	$21,250	2019
2015	176	2019	$44,000	2020
2016	219	2020	$54,750	2021
2017	4286	2021	$1,071,500	2022
2018	1397	2022	$349,250	2023
2019	1150	2023	$287,500	2024
2020	2958	2024	$739,500	2025
2021	3952	2025	$988,000	2026
2021	19	2025	$7,750	2028

Solutions

As our district grows we need to closely manage our technology inventory. The lifespan of Chromebooks are dictated by Google (OS). The average life span(hardware) is five years from date of build, not date of purchase. **We do not have a planned schedule for replacement of end of life equipment.**

Insurance Claims 2021-2022

Insurance coverage per student/device is $22.

8000 insurance at $22.00 = $176,000 per year

5 year insurance cost = $880,000

Solution

Budget for replacements based on a 5 year build schedule.

The average cost per chromebook is $250.00
Over a five year period breaks down to $50.00 a year per chromebook.

8000 students $250.00 = $2,000,000.00 divided by 5 years = $400,000.00 each year

Technology Support Planning

The use of enhanced technology in the administrative functioning of the district is also of importance to increase the efficiency of managing services, enhance communication, control finances, and manage student information. Technology in this area can streamline administrative processes as well as enhance instructional outcomes.

TECHNOLOGY STAFF

Irvington employs **10 Instruction Technology Coaches** whose primary focus is to train and support district staff on PowerSchool, PowerTeacher, Google Workspace for Education, Clever, iReady, Savvas, GoGuardian, learning.com, IXL, BrainPOP, OnCourse and other district applications related to technology. There is 1 applications and web development technology coach and 1 district software and systems technology coach.

There are **5 district technicians and 1 Media Technician** (TV-36) within the district as well. The technicians must maintain a network including 25 servers, 200 switches,complete technical repairs, upgrade and install software,maintain 60 printers, and monitor 785 access points for the wireless network in 11 of the 12 schools. The number of access points and devices will increase dramatically with the proposed 2:1 initiative.

SUPPORT PROCESS

Starting with the 2022-23 SY, all technical assistance needed within classrooms requires an IT Ticket. These tickets will be routed to District Technicians for action. If the ticket involves training and/or systems based assistance, they will be forwarded to a building technology coach. It is imperative for the Department of Technology that IT Tickets are submitted for support requests. These tickets form a log for the department to better diagnose, assess, and strategize solutions for our staff. The technology department going forward will request all staff to submit IT Tickets when an issue arises. This supplements our current helpdesk operation.

- Staff, students, and parents can easily submit help requests using custom forms.
- Help tickets can be automatically created and routed from email submissions.
- Tickets can auto route to the appropriate technician(s) based on site or ticket type.
- Automated notifications keep everyone informed of updates to the tickets.
- Create, access, and update tickets using the One to One Plus mobile app.
- Assign loaner or new devices directly to a user from the help desk ticket.

SUPPORT RESOURCES

We will continue to offer our training resource portal mastery in minutes for staff to quickly access topic based how-to-videos, guides and other resources on-demand. Staff, students, and parents can easily submit help requests using custom forms.

- Gradebook for teachers: Powerteacher Pro - Grading, Reporting, Customization.
- District Email: Creating your own email distribution lists, Using canned responses.
- Getting started with Clever, Oncourse, Learning Ally and Community Printing.

Technology Professional Development

In support of student Academic Achievement, the technology department will focus on technology focused professional development. Over the next five years, our goal is to train and support small groups of classroom teachers in the use of educational technology, deployed applications, new equipment and changes to current data systems. All teachers who attend these training sessions will receive professional development hours. The goal is to retain the ability to provide focused and agile training for smaller audiences in rapid succession. Tech Coaches will focus on establishing building mastery of all deployed technology assets and the related curricular tools. Just-in-time training sessions will be available in-person and in online formats, to maximize availability for teachers both at the location and elsewhere in the district.

There are several advantages for teachers participating in professional development online. Many teachers do not use technology in the classroom because they do not see consistent or extensive modeling of the use of technology. An online format can model technology-based instructional strategies and have a positive effect on teachers' knowledge, pedagogical beliefs, and instructional practices. Once teachers have access and become comfortable using online resources to support their collaborative and personal professional learning needs, they also gain comfort with incorporating technology-supported strategies in their classrooms. This skill set should also be supported so that district staff are always ready to transition to an online only teaching format should the need arise again.

Professional Development Table

Educators' Proficiency/ Identified Need	Ongoing, sustained, high-quality professional development planned	Support
District wide knowledge of Go-Guardian	Course called "Introduction to Go-Guardian" will be offered by technology coaches after school hours each quarter. This basic training will be offered each quarter for one school year.	Technology coaches will continue to work with staff members during their common planning periods as well as preparation periods to help increase staff comfort levels.
Integrating Technology through the use of Interactive Boards	District professional development will be offered by technology coaches. Multi levels of training will be ongoing throughout the implementation of this technology plan.	Teachers will work with technology coaches to develop lesson plans to be shared district wide.
Utilizing OnCourse lesson planning system to communicate with parents	Training sessions provided during common planning periods on how to use website integration by technology coaches. This will occur throughout the school year.	Mentoring in classrooms by technology coaches. Support by principals and district administration.
Developing teacher websites in OnCourse	Training sessions provided during common planning periods by technology coaches on how to use website integration. This will occur throughout the school year.	Mentoring in classrooms by technology coaches.

Educators' Proficiency/ Identified Need	Ongoing, sustained, high-quality professional development planned	Support
Increasing collaboration using Google Classroom	In service courses and/or Academy courses provided on how to use the components of Google Docs and practical applications on how it can be used to support the curriculum. This will occur throughout the school year	Grade level teams use GoogleDocs as a form of communication and collaboration in common planning time. Mentoring in class by technology coaches in setting up their classes and utilizing the tools.
Basic Competencies in using technology as a management and time saving tools and develop awareness of district policies for all new teachers.	Technology coaches will provide training sessions for all new teachers on how to use Powerschool, district email, and OnCourse, as well as providing information on district policies i.e. Acceptable Use policy, Internet Safety, etc. Training will be ongoing throughout the three years of the technology plan.	In Class Support Provided By technology coaches.
Integrating Social Media District Wide	Technology Coaches will Provide training sessions to all interested teachers in district policies and safe use of social media.Training will be ongoing throughout the three years of the technology plan.	Mentoring in classrooms by technology coaches.

5 Year Educational Technology E-Rate Plan

Erate 2022- 2023

- At Chancellor Elementary and University Elementary School, the IDF will be moved from flood-prone location to new secure room, with network wiring run from new location.
- At the Rite L. Owens S.T.E.A.M Academy, the IDF will be moved from a location with water hazard to a new location in the same room, with limited new network wiring.
- Change from multimode to single mode fiber

Erate 2023- 2024

- Expand Intranet to 5GB+ between schools.
- Increase District network security by subscribing to threat protection, endpoint security and zero day vulnerability protection.

Erate 2024- 2025

- Move over to POTS in a box in order to reduce 911 connectivity issues
- Expand Internet to 5GB.

Erate 2025- 2026

- Rip and replace wiring and update to Category 6a/ 8 wiring

Erate 2026- 2027

- Move over from PRI to SIP trunking
- Replace end of life APs. servers and switches

5 Year Comprehensive Goals

Goal I: Improve student academic achievement through the use of technology by:

1. **Integrating technology in the classroom**
    a. Expanding classroom tools for teaching and learning.
    b. Providing for the integration of multiple resources for existing and emerging curriculum.
    c. Enabling the learning community to communicate more effectively, access and process information, and work productively.
    d. Linking the classroom with educational resources within the building, community and worldwide.
    e. Creating a collaborative environment for project oriented activities.
    f. Increasing the productivity of students as they work toward attaining learning outcomes.
    g. Encouraging the use of multimedia tools enabling students to become active and experiential learners.
    h. Enabling learning to involve partnerships within the school, among schools, and with other organizations.

2. **Building a culture of continuous learning for staff**
    a. Developing school based technology planning and learning.
    b. Incorporating learning new curriculum with technology applications.
    c. Expanding the variety of teaching tools to differentiate and support diverse learners.
    d. Increasing support for emerging instructional strategies: interdisciplinary, collaborative, and active learning options.
    e. Enabling curriculum, instruction and assessment to be developed and aligned with each other.
    f. Providing a system that helps students, parents and teachers work together to support educational outcomes.
    g. Investigating emerging possibilities for electronic learning resources such as ebooks, social media, and tablets for teachers and students.

Goal II: Insure equitable and effective access to technology for staff and students by:

1. **Increasing the number of students K-12 who use technology to communicate effectively in a variety of modes.**
    a. Increasing access to technology each year for staff and students.
    b. Ensuring that all students have equitable access to computers with a focus on responsibility and ethics.
    c. Using technology as a tool to support student learning across disciplines.
    d. Using technology for the evaluation of instruction and for collection of assessment data.
    e. Using technology to increase communication with the parents and community through the use of Powerschool and OnCourse.

2. **Increasing the number of students K-12 who use technology for critical thinking, learning, and producing quality products in a variety of modes.**
    a. Teaching students to select and use a variety of technology resources and applications for specific learning tasks.
    b. Adopting new technologies to enhance curriculum and student performance

3. **Increasing the number of students K-12 who use technology for research, problem solving, and decision making in a variety of modes.**
    a. Providing increased opportunities for students to build needed research, presentation and technology skills.
    b. Including the use of technology as a regular part of lesson plans, using the Office Suite and other tools for production, understanding, and making meaning with data.

Goal III: Increase technology knowledge and use for all staff and students by:

1. **Understanding basic technology operations and concepts.**
    a. Demonstrating an understanding of the nature and operation of technology systems, including networked environments.
    b. Demonstrating an understanding of concepts underlying hardware, software and connectivity.
    c. Navigating computer systems (organize documents into folders and move between different applications).
    d. Developing sufficient technical skills to successfully use, troubleshoot, and maintain technology in daily life, work situations, and learning environments.
    e. Applying strategies for identifying and solving routine hardware and software problems that occur during everyday use.

2. **Using technology responsibly and ethically.**
    a. Practicing responsible use of technology systems, information and software.
    b. Cooperating with others while using technology. (students)
    c. Caring for and safely operating equipment.
    d. Demonstrating legal and ethical behaviors when using information and technology, and discussing consequences of misuse. (students)
    e. Demonstrating an understanding of intellectual property and copyright law by properly crediting work of self and others. (students)
    f. Identifying technological skills needed for success in school and vocations. (students)
    g. Researching the accuracy and relevance of information sources. (students)

Goal IV: Increase productivity and efficiency through the use of technology by:

1. **Using technology to communicate effectively and creatively.**
    a. Using a variety of media and formats to communicate information and ideas effectively to multiple audiences. (students)
    b. Creating multi page documents using writing process steps, word processing skills, and publishing programs. (students)
    c. Devising documents using word processing program features, including spell checking, thesaurus and grammar checking. Using advanced editing and text formatting. (students)
    d. Using a spreadsheet to create tables, graphs and charts, and explain what each means. (students)
    e. Creating, producing, and presenting ideas in a variety of forms, including text, video, graphics and conversation. (students)
    f. Enhancing documents with graphics, including clip art and original artwork, using paint and draw programs. (students)

2. **Using technology for thinking, learning and producing.**
    a. Enhancing content area learning with technology infused lessons. (staff and students)
    b. Using a variety of media and technology resources for directed and independent activities to support learning. (staff and students)
    c. Constructing new meaning and knowledge by combining and synthesizing different types of information. (students)

3. **Using technology for research, problem solving and decision making.**
    a. Using technology to locate, evaluate, collect and organize information from a variety of sources. (students)
    b. Using technology to locate, evaluate, collect and organize information (electronic encyclopedias, library catalog, selected Internet sites, and magazines). (students)
    c. Reviewing information analytically and transforming it into useful knowledge to solve problems. (students)

5 Year Technology Implementation

District Objective	Strategy/Activity	Timeline	Person Responsible	Documentation
1.1d,1.1e,1.2a.2.1 a2.1b,3.1a,3.1b,, 4.3a-c	Jamf is an Apple device management system for Apple computers and mobile devices. With Jamf, technicians can manage the entire lifecycle of all Apple devices.	2022-27	Director of Technology	Jamf web based management system
1.1d,1.1e,1.2a.2.1 a2.1b,3.1a,3.1b,, 4.3a-c	One 2 One Plus Inventory Management and Help Desk System - K-12 asset and help desk management are an ever-increasing challenge. One 2 One Plus is a fully integrated asset management and help desk system. It will help the technology department and district be more effective and efficient by keeping all of our technology assets in one place.	2022-27	Director of Technology	One 2 One Plus web based management system
1.1a,1.1c,1.1e,1.1h ,1.2a, 1.2g, 2.1a-e, 2.2a, 2.3a,3.1a-e, 3.2a,3.2c,3.2d-g,4.1a-f,4.2b,4 .2c	Chromebook 2 to 1 initiative for elementary students	2022-23	Director of Technology	Direct Distribution of Devices

District Objective	Strategy/Activity	Timeline	Person Responsible	Documentation
1.1a,1.1c,1.1e,1.1h ,1.2a, 1.2g, 2.1, 2.2a, 2.3a,3.1, 3.2a,3.2c,3.2d, 4.1,4.2b,4.2c	Purchase 3d printers for all Media Centers within the district to create design Maker Space	2022-23	Director of Technology and Purchasing	Purchase Orders
2.1c-e3.1a,3.1b, 3.1d,3.1e	Secure the power outlets for the switches in classrooms and where necessary, move switches out of classrooms	2022-23	Technicians	Work Logs
1.1d,1.1e,1.2a.2.1 a2.1b,3.1a,3.1b,, 4.3a-c	Review and organize staff onboarding procedures for staff entering and leaving the district, including device distribution, account creation and access, credentials procedures and FAQ repository. Organized by department and position.	2022-23	Technology Coaches and Technicians	Documentation and Accounts Overview
1.1d,1.1e,1.2a.2.1 a2.1b,3.1a,3.1b,, 4.3a-c	Provide detailed training for staff and administrators on the usage and structure of the Frontline Evaluation System	2022-23	Technology Coaches	Professional Development

District Objective	Strategy/Activity	Timeline	Person Responsible	Documentation
1.1a,1.1c,1.1e,1.1h ,1.2a, 1.2g, 2.1, 2.2a, 2.3a,3.1, 3.2a,3.2c,3.2d, 4.1,4.2b,4.2c	Purchase Virtual Reality headsets for all Media Centers within the district /Virtual Reality Learning Experiences	2023-24	Director of Technology and Purchasing	Purchase Orders
1.1a,1.1c,1.1e,1.1h ,1.2a, 1.2g, 2.1, 2.2a, 2.3a,3.1, 3.2a,3.2c,3.2d, 4.1,4.2b,4.2c	Acquire additional live streaming equipment (cameras, lighting, microphones) for video production suitable to online content creation	2023-24	Director of Technology	Purchase Orders
1.1a,1.1c,1.1f,1.1g, 1.2a, 1.2g, 2.1, 2.2a, 2.3a,3.1, 3.2a,3.2c,3.2d, 4.1,4.2b,4.2c	Begin transition to purchasing USI 2.0 Chromebooks with Stylus. This will expand curriculum possibilities and compatibility with future expected features available in applications used in education.	2024-27	Director of Technology and Purchasing	Purchase Orders
1.1ab,1.1g, 1.2b-d, 1.2g,2.1b,2.2b, 2.3a,3.1c,3.2e, 4.1a,4.1e,4.1f,4. 2a	Complete comprehensive training program for staff on the integration of touchscreen and stylus features in the classroom and the available features in curricular software	2024-25	Technology Coaches	Training Logs
1.1a,1.1b,1.1f,2.1a ,2.1c, 2.1d,3.1c	Provide safe and engaging online learning experience/ Provide instruction on the features of GoGuardian	2022-27	Technology Coach and Applied Technology Teachers	Lesson Plans And training logs

District Objective	Strategy/Activity	Timeline	Person Responsible	Documentation
1.1e,2.1a,2.1c,2.2b 2.3a,2.3b, 3.1a,3.1b,3.1c,3.1d,3.1e, 4.1a,4.1d4.2a, 4.2b,4.2c, 4.3a,4.3b	Provide instruction to staff and students in using hardware, software, peripherals, digital media and other technologies, and how they can be used effectively in the classroom to support learning.	2022-27	Technology Coach and Applied Technology Teachers	Lesson Plans And training logs
3.1a,3.1b,3.1c,3.1d,3.2a, 4.1a,4.1b,4.1c,4.1d,4.1e, 4.1f,4.2c,4.3a, 4.3b	Provide Instruction to students in word processing, keyboarding skills, creating Spreadsheets, databases, and multimedia presentations.	2022-27	Applied technology Teachers	LessonPlans
1.1a, 1.1b,1.1d,1.1g,4.2g,	Purchase Software to support the curriculum and mastery of the Common Core	2022-27	Office Of Curriculum and Instruction	Purchase Orders
3.1a,3.1b,3.1c	Continue To implement EasyTech apart of the middle school technology curriculum	2022-27	Middle School Computer lab teachers	LessonPlans

District Objective	Strategy/Activity	Timeline	Person Responsible	Documentation
3.1a,3.1b,3.1c,3.1d,3.2a, 4.1a,4.1b,4.1c,4.1d,4.1e, 4.1f,4.2c,4.3a, 4.3b	Provide staff development and mentor classroom teachers in the infusion of technology in the curriculum, i.e. planning and executing project based learning activities involving real time data, using Web 2.0 tools in the classroom, collaboration and communication activities, etc.	Ongoing	Technology Coaches	TrainingLogs
1.2g,2.1b, 1.1d,1.1h,1.2d, 1.2g,2.1c,2.1d,2.2,2.2b,	Provide Instruction on safety and ethical issues and information literacy skills. Distribute Acceptable Use Policy to stakeholders annually. Provide instruction on use of social media.	Ongoing	Director Of Technology Technology Coaches Principals	Training Logs, signed district release form. TrainingLogs
4a,4b,4c,4d,4e,4f	Provide instruction, search strategies and use the Internet, including information literacy skills. Create project based learning activities incorporating the design process, problem solving skills,data analysis, collaboration,and technology for realtime global problems and issues.	Ongoing	Classroom Teachers	LessonPlans
1b,1c,1e,1g,1h	Revise technology curriculum to meet the needs of students in learning present and emerging Technologies, and 21st Century Skills, including the nature and impact of technology and technological design.	Ongoing	Office Of Curriculum and Instruction	Revised Curriculum

District Objective	Strategy/Activity	Timeline	Person Responsible	Documentation
2b,3a,3c,3d	Technology Coaches, Applied Technology Teachers, Library Media Specialists and other school personnel to attend conferences and workshops and turnkey to staff	Ongoing	Office Staff Development	Turnkey Reports
1d,1e,1g,	Maintain District website	Ongoing	Director Of Technology Webmaster	www.irvington.k12.nj.us
2e,3d	Provide training on Student Information System for staff (Powerschool)for necessary personnel	Ongoing	Technology Coaches and Powerschool Consultant	Training Logs, agendas and attendance sheets
1d,1h,1.2f	Provide parent training on basic computer use, Internet Use, Internet Safety, social media, and email	Ongoing	Technology Coaches	Training Logs, agendas and attendance sheets
	Provide students in the Early Childhood program with touchpads and developmentally appropriate software	Ongoing	Director Of Technology	Purchase Orders
	Provide classrooms with special needs students devices that are touch rather than the traditional chromebooks. Headphones and iPads are also asked to be provided.	Ongoing	Director Of Technology	Purchase Orders

Descriptive Statements

Describe how the district integrates assistive technology devices into the network to accommodate student needs.

The district will continue to provide assistive technology to children with disabilities as per the Individual Education Program IEP). Assistive Technology can consist of Chromebooks, iPads, Applications and specialized Computer Programs specific to the curriculum, Tape Recorders, and Listening Centers. With the purchase of student services specific carts and devices, the Irvington Public School District can accommodate all students in need of Assistive Technology. Applications and features provide for needs such as voice description and screen reading technology, voice transcription, and plug and play support for braille displays. Applications can help students with communication through descriptive icons and touch interactivity.

How educators have access to educational technology in their instructional areas such as using desktops, mobile laptop and wireless units.

As of September 2021, all educators have a Dell All-In-One in their classroom or media center to use as an instructional tool to enhance teaching and learning. This gives teachers access to the Internet, Google Account, as well as our student information system and the Department of Education's website for the Core Curriculum Content Standards. This new addition has given teacher access to a webcam and speaker so that they can attend virtual meetings when needed. As a result, all teachers and media specialists can effectively communicate with one another when planning lessons. The integration of the OnCourse lesson planning system encourages collaboration between all schools within the Irvington Public School District by allowing all educators to share their lesson plans.

How administrators have access to technology in their workplace such as using desktops, mobile laptop, and wireless devices).

All administrators have PCs on their desks connected to the Internet, as well as a laptop and an iPad to allow for effective communication with staff members. All Directors and Supervisors have an iPad and a Macbook laptop.

X. Describe how the district's web site is accessible to all stakeholders for example using Federal Accessibility Standards)

The Irvington Public School District Web Site takes the appropriate measures to ensure Web Content Accessibility Guidelines (WCAG) requirements are maintained. This is in addition to the Information and Communication Technology revised 508 standards and 255 guidelines of: "Subpart B Technical Standards; 1194.22 Web based intranet and internet information and applications" of Section 508, which requires that Federal Agencies' electronic and information technology is accessible to people with disabilities. Through the use of web standards, consistent coding techniques and the use of third party validation services, all of our web visitors are assured of a consistent browsing experience across a broad array of browsers, assistive devices, and handheld devices.

Describe the plan for replacing obsolete computers/technology and include the criteria for obsolescence.

The district has increased its hardware total by over 10,000 devices since the last technology plan. The main increase in district technology has been the increased usage of Chromebooks by students. The district will continue to take advantage of programs that take obsolete computers/technology as a donation for removing the hardware.

At this point the criteria for the retirement of computers/technology:

- *Software or programs materials no longer relevant to the curriculum*
- *Damaged beyond repair*
- *No longer cost effective/repairable*
- *Has no tradable value*
- *Chromebook End of Life OS support*

The district is working on implementing a 2:1 initiative at the elementary schools so that students can have access to a Chromebook at home as well as a device in school.

List the filtering method(s) used.

The Irvington Public School District will transition to the Palo Alto web filter. It is a high performing total Internet Filtering and Monitoring hardware that protects students from any harmful web content and meets all of the Federal filtering CIPA mandates.

The district's filter does not allow any obscene; or child pornography; or any information content that is harmful to minors to enter any of the computers in the Irvington Public School District. The district's PreK -12 Technology Curriculum covers Internet protocol that includes social networking sites, chat rooms, and cyber bullying awareness in order to educate our students about the proper techniques to respond to threatening communications.

Remote Instruction Device Distribution Plan

During remote learning sessions students in the hybrid setting must utilize the chrome books given by the district. Students must attend the entire class: remote session, and return digitally when directed, and/or complete the asynchronous learning activity.

If the need for distance learning should occur, distribution should be as follows for the 2022-2023 school year.

Elementary Schools

There will be no need to disable carts in the elementary schools since our students will have a chromebook both at home and at school.

Middle Schools

Students will continue to bring their chromebooks back and forth to school and there will be no need to disable carts.

High Schools

Students will continue to bring their chromebooks back and forth to school and there will be no need to disable carts