

# Technology Plan



Elizabeth School District

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June 1, 2016 - July 31, 2019

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## INTRODUCTION

The Town of Elizabeth is located in a beautiful area of the Palmer Divide among rolling hills and pine forests with views of Pikes Peak and the Rocky Mountains. At an elevation of 6,558 feet, Elizabeth is located 15 miles east of I-25, about 45 minutes southeast of downtown Denver and 45 minutes northeast of downtown Colorado Springs.

Elizabeth School District (ESD) is a high performing school district, characterized by a personalized approach to learning and the recruitment and development of the very best in their fields. We recognize the importance of each individual and his or her contribution to the success of our organization. We expect that our employees will be known for integrity, passion, and competence. With over 325 employees we are one of the largest employers in Elbert County.

## ESD TECHNOLOGY VISION STATEMENT

Technology allows educators to improve the effectiveness of instruction, increase the students' control of their own learning, broaden the scope of the curriculum, and provide access to alternate modes of learning.

It is the purpose of this plan to set priorities as it relates to technology, ensuring that both students and staff are able to use technology effectively as part of the teaching and learning process, in order for our students to be successful members of society. To that we declare the following Technology Vision Statement:

***The Elizabeth School District will create a framework to ensure that students and staff are able to use technology effectively as part of the teaching and learning process, in order to prepare our students to be successful in the global workforce.***

## PROCESS

The ESD Technology Plan was written by the Technology Plan Committee (TPC) which is made up of an elementary, a middle, a high school, and a continuation high school teacher, along with the Director of Technology. Through multiple writing sessions, and

with help from the EST Technology Innovation Committee, TPC created, discussed, and edited the District's technology plan. Once the plan was written, it was presented to a stakeholder group for feedback and then finally approved by the Board of Education.

## STAKEHOLDERS

- Director of Technology - *Marty Silva*
- Technology Plan Committee (TPC)
  - *Susan McMullen - Teacher, Singing Hills Elementary*
  - *Lisa Mullins - Teacher, Elizabeth Middle School*
  - *Kelly Riggle - Teacher, Frontier High School*
  - *Karl Zander - Teacher, Elizabeth High School*
- ETIC (ESD Technology Innovation Committee) -
  - *Jessica Calnan - Teacher, Singing Hills Elementary*
  - *Kelley Patin - Teacher, Elizabeth Middle School*
  - *Ashley Pollard - Teacher, Elizabeth High School*
  - *Mike Scobee - Senior Network Administrator*
  - *Shellie Scobee - Student Data Specialist*
  - *Sarah Siekierski - Teacher, Running Creek Elementary*
  - *Shannon Shaw - Teacher, Running Creek Elementary*
  - *Jon Taylor - Teacher, Running Creek Elementary*
  - *Stashia Taylor - Teacher, Elizabeth Middle School*
- The Board of Education
  - *Deb Spenceley, Carol Hinds, Dee Lindsey, Chris Richardson, Richard Smith*
- Cardinal Leadership
  - *Douglas Bissonette - Superintendent*
  - *Pam Eschief - Principal, Elizabeth Middle School*
  - *Tammy Krueger - Principal, Running Creek Elementary*
  - *Michele McCarron - Communications Specialist*
  - *Bret McClendon - Principal, Elizabeth High School*
  - *Rob McMullen - Principal, Frontier High School*
  - *Regina Montera - Principal, Singing Hills Elementary*
  - *Kim Morrison - Director, Special Services*
  - *Jeff Neer - Operations, Maintenance, & Facilities Coordinator*
  - *Ron Patera - Director of Finance*
  - *Kin Shuman - Director of Human Resources*
  - *Susan Stevens - Director of Food Services*
  - *Terry Wilson - Director of Transportation*
- ESD Student - *Chloe Peterson, Elizabeth High School Junior*
- ESD Parent - *Echo Gustafson, EMS parent*

# TECHNOLOGY FRAMEWORK

The District has outlined six interconnected tenets that make up a technology framework that supports our vision statement. These tenets are all equally important in ensuring the success and support of technology integration within ESD and can be visually summarized in the diagram below. The honeycomb structure is purposeful: within a real honeycomb, the hexagonal shape provides efficient strength for structural support; metaphorically speaking, these six tenets are the efficient structural support needed for ensuring successful technology integration within ESD.





## 1<sup>st</sup> TENET: PROFESSIONAL DEVELOPMENT

The advances in technology have increasing impacts on education in terms of greater access to information, creating engaging learning experiences, assessment and data analysis tools, better communication tools, and the storing and accessing of data. In order to efficiently utilize these tools it is important for students and educational professionals to receive the proper training. To realize this potential we will provide regular professional development for both students and staff on technologies that are used site or district wide.

Within the Professional Development (PD) tenet, we have identified four principal priorities:

### 1) Formal professional development for new incoming teachers

- There will be 8 hours of PD given to new teachers before the 1st day of instruction
  - 4 hours of Infinite Campus training
  - 4 hours of technology training. Content will be based on need and may include all of the following:
    - Google Mail and Calendar
    - Google Apps for Education (Google Docs, Google Spreadsheet, Google Slide)
    - eSchool View/website
    - General ESD technology policies and procedures
- Teachers would provide contact information on a sign-in sheet at the beginning of each training session and will receive credit towards requirements for CDE
- For those teachers hired after the beginning of the year, colleagues will provide basic information. The following school year, they will receive formal training.

Evaluation method for this priority: End-of-year technology survey for self-assessed technology proficiency.

## **2) Professional development days for all staff**

- One half-day PD on 1 non-contact day; subject to be determined by need
- Optional PD on other 2 non-contact days; subject to be determined by need
- Use collaborative time for PD (once a quarter)
- Teachers would provide contact information for a sign in sheet at the beginning of each training session. Following each training session, teachers would receive contact hours certificates.

*Evaluation method for this priority:* End-of-year technology survey for self-assessed technology proficiency.

## **3) Compile a library of online training resources for any teacher**

- The Director of Technology will begin to compile online training resources for teacher use from currently available sources (such as Infinite Campus, School Messenger, existing YouTube videos, etc.)
- The District website will be used as a hub to publish online training resources
- The Director of Technology will supplement library with in-house created content for anything that is needed but currently doesn't already exist

*Evaluation method for this priority:* End-of-year technology survey for PD participation.

## **4) Establish a Technology Lending Library in each building**

- The Technology Department will start a technology lending library to be housed in each building's library for teacher checkout use
- ETIC will establish what type of technologies will be purchased for this purpose (eg. robotics, 3d printers, VR headsets, etc.)
- The Technology Department will commit a portion of its budget to fund this purpose

*Evaluation method for this priority:* End-of-year technology survey for usage and ETIC meetings.



## 2<sup>nd</sup> TENET: DIGITAL CITIZENSHIP AND STUDENT SAFETY

As of July, 2012, the latest Federal CIPA (Child Internet Protection Act) requirements mandate that districts applying for federal E-Rate funding must have programs in place for educating students about digital citizenship. In addition, CIPA also requires districts to address how it is protecting students from accessing inappropriate content on the Internet.

The Elizabeth School District has been using Common Sense Education's innovative and research-based digital-citizenship and literacy resources for this purpose. The resources teach students, educators, and parents tangible skills related to Internet safety, protecting online reputations and personal privacy, managing online relationships, and respecting creative copyright. The free resources are currently used in more than 85,000 classrooms nationwide.

*Within the Digital Citizenship and Student Safety tenet, we have identified four principal priorities:*

### 1) Use commonsensemedia.org for Digital Citizenship curriculum

- The Director of Technology will work with each Principal to establish how curriculum will be delivered every year
- The commonsense.org Erate Toolkit Implementation Guide will be followed for curriculum  
(<https://www.commonsensemedia.org/educators/erate-admins>)

*Verification method for this priority:* Each teacher who delivers any part of the Digital Citizenship curriculum will document the activity for tracking purposes.



## **2) Establish and follow data privacy policies and practices**

- The Director of Technology will establish data privacy policies and practices that address FERPA, COPPA, and other related federally mandated data privacy policies
- The Director of Technology and/or Department of Technology staff will train other staff members yearly on any current District data privacy policies

Evaluation method for this priority: Beginning of the year training for new teachers; follow-up training as needed during school year; end-of-year technology survey.

## **3) iBoss has been established as the District's Internet Filtering software for CIPA compliance.**

Evaluation method for this priority: Continued payment of yearly maintenance and support for iBoss software and appliance.

## **5) Security cameras and Re-Unification**

- Standardize on Video Insight software for the security camera system at all locations *except Elizabeth High School*
- Standardize on the Avigilon platform for the security camera system at Elizabeth High School
- Keep on hand an emergency Re-Unification Kit that includes computers and cellular data wifi access for use at a re-unification site if needed

Evaluation method for this priority: Continued payment of yearly maintenance and support for security camera systems and hardware necessary for the Re-Unification Kits.



### **3<sup>rd</sup> TENET: COMMUNICATION AND COLLABORATION with Parents, Community and Colleagues**

It is crucial that we communicate district events effectively with our parents within the district and the community as a whole. It is also imperative that our staff communicate and collaborate effectively across the district.

Our district will use technology tools to effectively communicate between schools, students, staff, parents and community members. Teachers and district leadership will update pertinent information frequently in order to keep parents and community members informed. Collaboration between students and staff will become commonplace at all levels in order to provide immediate feedback on assignments. Staff will collaborate with other staff members using technology tools, ultimately eliminating many face-to-face meetings.

*Within the Communication and Collaboration tenet, we have identified five principal priorities:*

#### **1) Teachers will have a webpage with current information**

- Teachers need to at least have minimal information on eschoolview webpage which can then link to another webpage tool (like google sites)
- Webpages should have current, relevant information with monthly updates

*Evaluation method for this priority:* Beginning of year PD will establish webpages for new teachers, and continued periodic monitoring by ETIC in collaboration with Principals.

#### **2) Parent training on available technology tools for their use (such as Infinite Campus)**

- Online resources, such as videos or support documents to be communicated to parents
- Short training at beginning of the year or at parent teacher conferences to be given by Director of Technology or ETIC members or office staff

- Establish a web page for parents on each school's website that contain common resources as well as building-specific resources for IC
- If needed, each building's chromebook "kiosk" laptop may be used for parents as a resource

Evaluation method for this priority: Yearly DAC survey; ETIC and TPC meetings.

### **3) Teachers will use Infinite Campus gradebook**

- All teachers in middle and high school will use Infinite Campus' gradebook program
- Encourage K-5 teachers to use IC gradebook

Evaluation method for this priority: End-of-year technology survey on IC usage; Beginning of year IC PD for new and returning teachers; DAC survey.

### **4) Transparency of technology policies**

- ESD technology policies will be published on the District website
- Student and employee acceptable use policies will be reviewed on a yearly basis

Evaluation method for this priority: Periodic monitoring by Director of Technology and ETIC.

### **5) Provide training for teaching staff on parent communication and collaboration tools**

- See Professional Development section for priorities



## 4th TENET: ACCESS AND EQUITY

In order to ensure that all of our students have the same opportunities as it relates to technology, the District is committed to providing equitable access to and appropriate distribution of technology equipment and resources to its students and teachers in order to support the advancement in technology as it relates to teaching and learning.

Within the Access and Equity tenet, we have identified four principal priorities:

### 1) Establish common platforms (eg: ipads or tablets, laptops)

- Chromebooks will be the defacto device for students except in instances where specific applications require another device (see also 5th Tenet regarding sustainability)
- HP or Dell laptops will be the standard manufacturer for employee and teacher laptops
- Dell will be the standard manufacturer for desktop computers in a lab or student setting (if Chromebooks can not satisfy need)
- All shared computer carts will house Chromebooks (either Dell or HP)
- Epson will be the standard manufacturer for LCD projectors in the classroom
- Ziggy for document cameras

Evaluation method for this priority: The Director of Technology will meet with every principal before the end of each school teach to discuss technology purchases for the following year; standardized platforms will be monitored via ETIC and all technology purchases should go through the Technology Department to ensure cooperation.

### 2) The minimum technology in every classroom will be: a laptop computer for the teacher, an LCD projector, and a document camera

Evaluation method for this priority: The Director of Technology will meet with every principal before the end of every school year to ensure all teacher classrooms meet this minimum.

### **3) Equitable access to funds**

- The \$25 per student technology fee will be used to purchase technology at each school, equivalent to the total amount calculated based on their enrollment, every fiscal year *unless* a greater need has been recognized and approved
- The Technology Department will fund infrastructure technology based on an as-needed basis as determined by age, operability, and security

*Evaluation method for this priority:* The Director of Technology will publish a 'Technology Fee Fact Sheet' yearly for transparent reporting to the community on how the \$25 tech was spent at each school.

### **4) Assess our families technological accessibility**

- Use the yearly DAC survey to assess our families' technology accessibility

*Evaluation method for this priority:* The Director of Technology will work with DAC every year to discuss the DAC survey.



## 5th TENET: SUSTAINABILITY

With the state of Colorado's continuing struggles with funding for K12 education being ever-present, the District is challenged with sustaining technology that is relevant and essential to our students and provides them the skills necessary to be successful once they graduate.

With the following priorities, the District can better manage the sustainability of technology through measured and fiscally responsible means.

*Within the Sustainability tenet, we have identified three principal priorities:*

### 1) An established system of replacement for computers

- Establish a 6 year refresh cycle for all employee computers (this will ensure that a set amount of dollars is spent every year to sustain employee technology and will normalize spending on a yearly basis); a set amount from the general fund budget will be set aside each year to accomplish this
- Establish an 6 to 9 year refresh cycle for all student-use computers (there is some flexibility in the age of computers used for student use based on emerging technologies and repurposing older equipment) as budget allows

*Evaluation method for this priority:* The Director of Technology and Technology Department staff will evaluate age and effectiveness of computers district-wide on yearly basis to ensure normalization of spending.

### 2) Consolidate and assess current technologies via up-to-date database

- Technology staff will keep asset inventory database up-to-date for accurate statistics

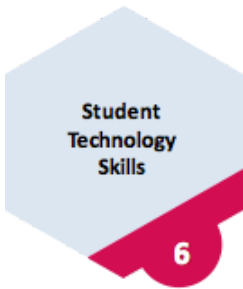
- Inventory database will be used to maximize usage and to consolidate for parts

*Evaluation method for this priority:* The Director of Technology and Technology Department staff will ensure inventory database is up-to-date via weekly staff meetings and end-of-year procedures.

### **3) Establish Chromebooks as the main device for students and the Chrome platform for instruction**

- Chromebooks lower costs per unit will ensure that sustainability in future years can be met
- See also 4th Tenet: Access and Equity regarding common platform

*Evaluation method for this priority:* Training at the beginning of the school year will address PD needs; continual collaboration with Principals and Teachers on the Chrome platform usage.



## 6th TENET: Student Technology Skills

The district’s Scope and Sequence of Technology Skills provides teachers with guidelines for teaching grade-level technology skills. The matrix aligns technology skills with the core curriculum standards and the information literacy skills for each grade level. Students use technology directly related to their curriculum studies to collect and organize information, draft and edit writing, synthesize and present what they have learned, and practice concepts that need to be reviewed.

Students will have mastered over 60% of the “Basic Skills” by the end the time they finish 5th grade. As they continue on, students will be able to use technology independently to enhance their learning and problem solving skills across the curriculum. These skills are part of the “Core Applications” section. As students reach the mastery level, technology will become a tool in their educational process, the “Core Subject Synthesis.” During the stages of Core Applications and Core Subject Synthesis, the skills being learned and practiced will be integrated as part of the core curriculum. Support will be provided to the teachers via the PD Tenet.

### Key:

Basic Skills	Core Applications	Core Subject Synthesis
Fundamental skills necessary to apply technology to the instructional program.	Students learn to use common applications and technology tools within a cross-curricular, multidisciplinary framework.	Students use technology applications and tools to enhance learning, increase productivity, and promote creativity.

### Skills Proficiency Key:

<b>A = Awareness</b>	Introductory level with instructors using the skills as part of their lesson delivery, as well as direct instruction of the skills in a lab or classroom environment.
<b>G = Guided</b>	At this level, students will begin to use the technology skills and tools in a guided manner, whereby the teacher will provide direct



	instruction in how and why a particular technology tool will and can be used.
<b>I = Independent</b>	At this level, students will have gained enough skill mastery to be able to use technology independently, but may require periodic assistance.
<b>M = Mastered</b>	Students can utilize and implement the technology skills without assistance.

**SCOPE AND SEQUENCE**

	Skill	K	1	2	3	4	5	6	7	8	9
<b>BASIC SKILLS</b>											
Hardware	Identifies the parts of a computer and uses a mouse and keyboard to enter data.	G	I	M							
	Starts, shuts down, and restarts the computer.	G	I	M							
	Logs in to computer using login in name and password.	G	I	M							
	Starts and quits applications.	G	I	M							
	Identifies and uses computer peripherals.	G	I	M							
	Uses the help menu as a means of problem solving.	A	A	G	G	I	M				
	Selects the appropriate hardware for the task.		A	G	G	I	M				
	Identifies and troubleshoots cables and connections for peripherals			A	G	G	I	M			

File Management	Creates a new document, opens, and closes a document.	A	G	I	I	I	M						
	Saves and retrieves documents from hard drive, external disks, servers and web based digital storage (understands desktop navigation, hierarchy, and file structure).							A	A	G	I	M	
	Understands the desktop and window manipulation, finder/program manager, application/finder menu, dock/short cut bar, and start menu.									A	G	I	M
	Can copy or cut and paste text and or graphics from one program to another.		A	G	G	I	M						
	Is able to choose the appropriate software for the task.			A	G	G	G	I	M				
	Can troubleshoot OS including quitting stalled programs.			A	A	G	G	I	M				
Keyboarding	Recognizes and locates letters and numbers on a keyboard and uses basic key functions.	G	I	M									
	Demonstrates correct home row position.	A	G	G	G	I	I	I	M				
	Uses the correct right and left hand keyboard positions.		A	A	G	G	G	I	I	M			
Digital Citizenship	*ESD uses the Common Sense ERate track for Digital Citizenship												
<b>CORE APPLICATIONS AND SYNTHESIS</b>													
Google Docs	Enter and delete text and line breaks	A	G	I	M								

	Use basic punctuation and spacing	A	G	I	M						
	Format text including font size and style, bulleted lists, justification, spacing	A	G	G	I	I	M				
	Format document including margins, headers, footers, and page numbering							A	G	I	M
	Format paragraph and page including tab, indents, line spacing, and outline							A	G	I	M
	Format tables within a document							A	G	I	M
	Use the principles of design to balance the size, color, style of headline, and artwork relative to body text		A	A	A	G	G	G	I	M	
	Cut, copy and paste text within the same or between documents		A	G	G	I	I	M			
	Use find/replace, thesaurus, user/custom dictionaries							A	G	I	M
	Merge data from database or spreadsheet into word processing documents							A	G	I	M
	Import graphics including charts, tables and pictures		A	G	G	I	I	M			
	Use spell check and thesaurus			A	A	G	G	I	M		
	Save document to PDF to include proper page orientation					A	A	G	I	M	
Google Slides	Use appropriate software to create an electronic slide presentation.		A	G	I	I	M				

	Demonstrate appropriate presentation skills, focusing on pace and message		A	G	G	G	I	I	I	I	M
	Use outlining tools to create simple presentation templates							A	G	I	M
	Add multimedia to slides		A	G	G	G	I	I	I	I	M
	Add transitions and animation to slides		A	G	G	G	I	I	I	I	M
	Format slide background, design, layout, and color scheme		A	G	G	G	I	I	I	I	M
Google Draw	Use editing tools in drawing and painting		A	G	G	G	I	I	I	I	M
	Capture screenshot from various digital sources							A	G	I	M
	Import and export graphics in appropriate file format							A	G	I	M
	Save graphic and multimedia files with attention to file size and media storage							A	G	I	M
	Know appropriate type of graphics application to complete a given task							A	G	I	M
	Create original artwork using the tools within a grade-appropriate graphics program		A	G	G	G	G	I	I	I	M
Google Spreadsheets	Read and interpret information in a spreadsheet			A	A	A	A	G	G	G	I/M
	Enter, edit, and delete information in a spreadsheet/graphing program			A	A	A	A	G	G	G	I/M

	Use data from a spreadsheet to create charts and graphs (use of chart wizard)			A	A	A	A	G	G	G	I/M
	Format cell attributes			A	A	A	A	G	G	G	I/M
	Use fill for multiple entries of the same value or number			A	A	A	A	G	G	G	I/M
	Create multiple column data tables with column headers			A	A	A	A	G	G	G	I/M
	Use basic formulas for adding, subtracting, multiplying, dividing, averaging, and determining percents.			A	A	A	A	G	G	G	I/M
Digital Imaging and Production	Navigate through a multimedia presentation	A	G	G	I	I	M				
	Use basic computer based photo and video editing applications				A	A	A	G	I	I	M
Web Skills	Use browser application tools and nonlinear text features incorporated in web pages to navigate and read for information	A	G	G	I	I	M				
	Use effective Internet search techniques		A	G	G	I	I	M			
	Evaluate the reliability and validity of web pages, sites and multimedia files gathered.		A	A	G	G	G	I	I	M	
	Exhibit legal and ethical behaviors when using information and technology and discuss consequences of misuse	A	A	G	G	G	G	I	I	M	
	Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems										

Use book marking systems for gathering and retrieving web URLs specific to information needed for citing sources		A	A	G	G	G	I	I	I	M
Construct key words from research questions and combine with search techniques using search engines			A	A	A	G	G	I	M	
Understanding different file formats (PDF, JPEG, movie files, etc.) found on the internet for research and citing purposes			A	A	G	G	I	I	I	M
Organize information from multiple sources through note taking and outlining		A	A	G	G	G	I	I	I	M
Synthesize information from multiple sources in an authentic product (ie. shared Google Doc, or presentation) in order to give evidence of new understanding		A	A	G	G	G	G	I	I	M
Use collaboration tools to gather information, data, and feedback on content related projects		A	A	G	G	G	G	I	I	M
Use web-based tools to create online content		A	A	A	G	G	G	I	I	M