Technology Plan
2020 - 2023

Updated: May 2020

Contents
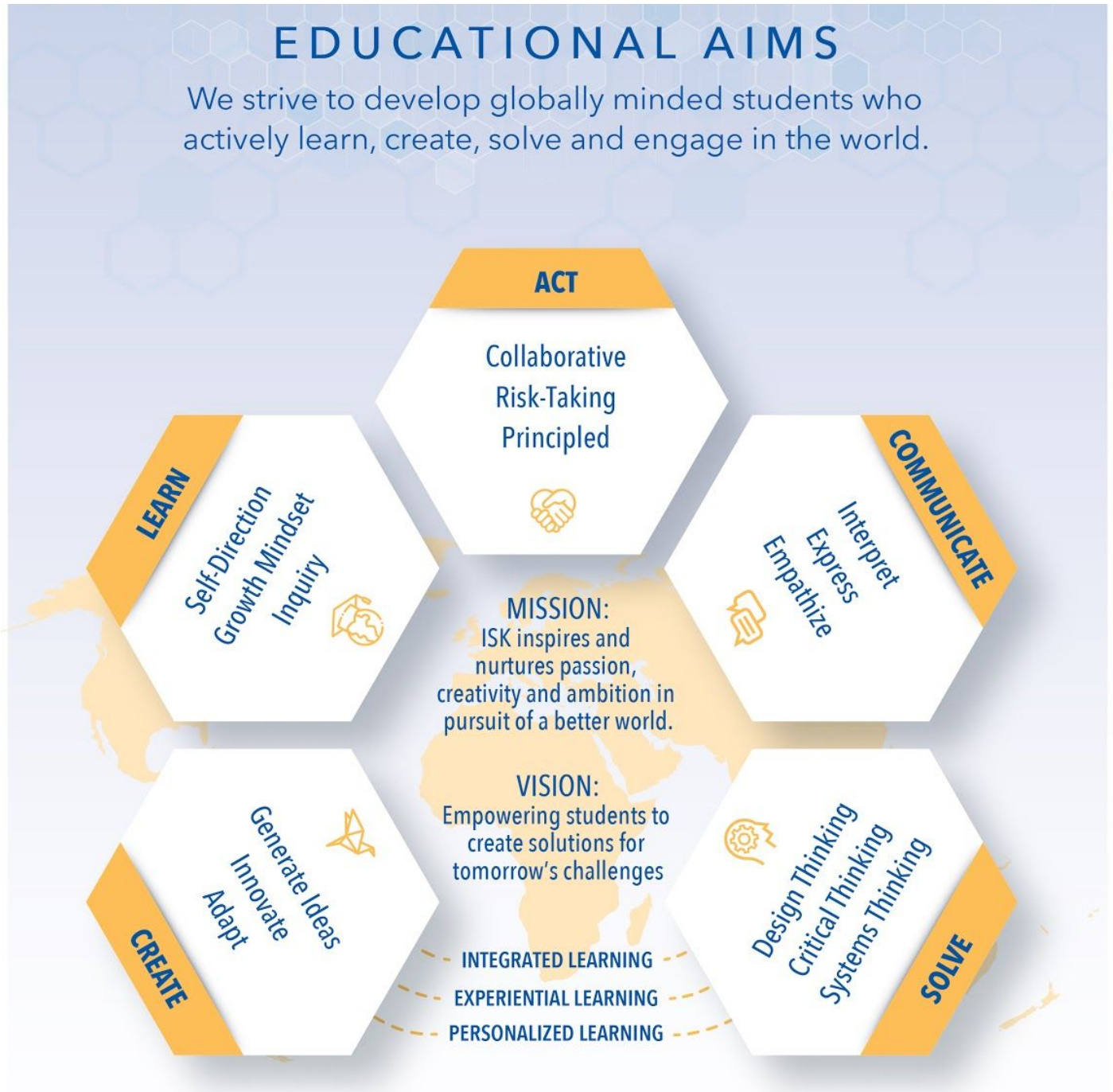
Vision, Mission, and AIMS

ISK Mission: *ISK inspires and nurtures passion, creativity and ambition in pursuit of a better world.*

ISK Vision: *Empowering students to create solutions for tomorrow's challenges.*

ISK AIMS

Each of the above Aims will be referenced throughout this document in abbreviated form:
- **L** - Learn
- **S** - Solve
- **A** - Act
- **CR** - Create
- **C** - Communicate

Information Communication Technology (ICT) Capability

Introduction

At ISK, students develop lifelong ICT capability as they learn to use ICT effectively and responsibly in their learning. Students use ICT to:
- competently access, communicate, remix, and create knowledge and concepts;
- investigate and solve relevant problems;
- work collaboratively in all learning areas at school and in their lives beyond school;
- explore and innovate using design and computational thinking;
- participate ethically and responsibly in a digital environment;
- understand ICT systems and contribute to new ways of doing things as technologies evolve.

Recognizing that technology is multidisciplinary by nature and has applications in any environment, ISK promotes lifelong success by integrating technology throughout the teaching and learning processes.

Standards for ICT Capability

ICT capability is based on the assumption that technologies and digital tools enable the student to create learning pathways to carry out tasks, solve problems, and generate new processes. Students perceive ICT systems as adaptive tools that they use and remix creatively to accomplish learning tasks, rather than systems that require following rigid, standard procedures.

ISK combines the strengths of International ICT Standards and the ISK AIMS to provide authentic contexts in which students build ICT capability. The five ICT Standards for ISK are stated in the language of a learner's ambitions and goals:

- **Creator and Innovator**
- **Investigator and Problem-Solver**
- **Communicator and Collaborator**
- **Computational Thinker**
- **Global Digital Citizen**

ICT Capability across the curriculum and within Technology Curriculum

Learning areas across the curriculum provide the content and contexts within which students develop and apply the knowledge, skills, behaviors, and dispositions that comprise ICT capability. Students develop the ability to transfer these across environments and applications. They learn to use ICT with confidence, while understanding its possibilities, limitations, and impact on individuals and communities. They learn to innovate with ICT, creating new ideas and generating unique processes for the future.

HS STEM Courses and MS Elective Courses provide specialized instructional opportunities for students who desire exploration and mastery of more advanced technological proficiencies required for future careers.

HS STEM Pathways is an opportunity for students to design an integrated, personalized and experiential learning experience in which, guided by a mentor teacher, they leverage knowledge and skills from STEM disciplines to engineer a solution to a real world problem.

ICT opportunities will be reviewed and revised regularly to ensure that there is alignment and consistency in opportunities for all students, and to respond to the demands for increased involvement with emerging technologies.

Information and Communication Technology Standards for Students

The ISK Design Cycle is the foundational process used to achieve ICT Standards.
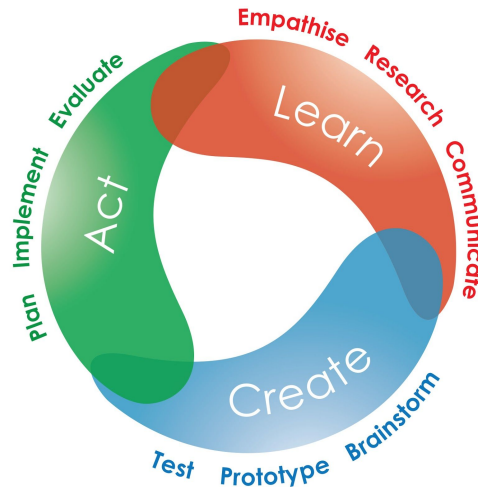
Five interrelated standards that are linked to the ISK Educational Aims guide learning with ICT:

- Creator and Innovator   **(CR) (A)**
- Investigator and Problem-Solver **(L) (S)**
- Communicator and Collaborator **(C) (S)**
- Computational Thinker **(L) (S)**
- Global Digital citizen **(L) (A)**

Creator and Innovator
Students use a variety of technologies within a design process to create and innovate. Students:

CR-1: Generate original ideas, designs, processes and solutions;
CR-2: Evaluate and use a variety of devices, software, and online tools;
CR-3: Prototype and present alternative solutions;
CR-4: Implement solutions innovatively across various disciplines.

Investigator and Problem-Solver
Students use technology to identify authentic problems, research responsibly, synthesize learning, and develop possible solutions. Students:

PR-1: Empathize and communicate with various stakeholders
PR-2: Plan and execute focused information/data searches for investigations;
PR-3: Generate, organize, analyze and evaluate validity of research and data;
PR-4: Explain and implement solutions in tasks and challenges.

Communicator and Collaborator
Students use digital tools to broaden their perspectives, increase empathy, and work effectively in teams. Students:

CC-1: Select, plan, and participate in technology-facilitated communications;
CC-2: Exchange ideas and solve problems in collaborative learning communities;
CC-3: Learn, explain thinking, and/or teach through communications technologies;
CC-4: Participate in collaborative online ventures that create and share group learning.

Computational Thinker

Students employ algorithmic thinking to propose and automate solutions to authentic problems and systems. Students:

CT-1: Recognize patterns and break down complex problems into steps (decomposition);

CT-2: Apply fundamental principles and concepts of computer science, including synthesis, abstraction, logic, algorithms, and data representation;

CT-3: Analyze problems in computational terms, and have repeated experience of designing and writing computer programs to solve and automate them;

CT-4: Use technology to create models and simulations to investigate and/or explain systems.

Global Digital Citizen

Students act in ways that are safe, legal, and ethical while learning and working in an interconnected digital world. Students:

DC-1: Use systems, such as Copyright and Creative Commons, to acknowledge intellectual property rights for all media and to share own work;

DC-2: Apply personal and digital information security protocols routinely;

DC-3: Create and monitor a personal digital footprint responsibly;

DC-4: Identify the impacts of current and emerging ICT in society.

Integration Planning Technology References

ACARA | The Australian Curriculum.   Australian Curriculum, Assessment and Reporting Authority (ACARA) https://www.australiancurriculum.edu.au/f-10-curriculum/technologies/ The Australian Curriculum is licensed under Creative Commons

Gov. UK. Department of Education (2013). National curriculum in England: design and technology programmes of study: https://www.gov.uk/government/publications/national-curriculum-in-england-design-and-technology-programmes-of-study/national-curriculum-in-england-design-and-technology-programmes-of-study (accessed 4 October 2013)

International Society for Technology in Education (2016). *National Educational Technology Standards (NETS) and Performance Indicators for Students:* **http://www.iste.org/standards/standards/for-students** (accessed 2016)

Link Landscape pages here.

- **Information & Communication Technology (ICT) Horizontal Learner Profiles by Grade Span**
- **Information &** **Communication Technology ICT) Program Implementation Timeline Information**
- **Technology Plan Implementation Timeline**
- **Tech Plan Estimated Budget Summary**

ICT Horizontal Learner Profiles by Standards and Grade Spans

- These Grade Span Level Profiles are updated to reflect alignment with the 2016 ISTE Student Technology Standards Profiles, and will be linked to Digital Strategies being developed for inclusion in unit plans.
- Skills will also be suggested by grade level digital strategies to support ES teachers in designing age-appropriate learning activities.

Strand (Elements)	Capability by end of Grade 2 (LES)	Capability by end of Grade 5 (UES)	Capability by end of Grade 8 (MS)	Capability by end of Grade 12 (HS)
Creator and Innovator *Students use a variety of technologies within a design process to create and innovate.* <u>Students:</u> CR-1: Generate original ideas, designs, processes and solutions; CR-2: Evaluate and use a variety of devices, software, and online tools; CR-3: Prototype and present alternative solutions; CR-4: Implement solutions innovatively across various disciplines	Set personal learning goals involving creating and innovating.	Set learning goals to create, reuse, and repurpose digital and non-digital artifacts to solve a problem, seeking and using feedback.	Articulate personal learning goals that include using a cyclic design process to investigate, design, prototype, test, reflect, and improve innovations.	Design personal learning goals that stretch current talents and open pathways and transfer ICT learning across disciplines for innovation.
	Select digital and non-digital tools to learn by taking things apart, creating or remixing, tinkering, and using the design cycle.	Select digital and non-digital tools to learn by taking things apart, creating or remixing, tinkering, and innovating using the design cycle.	Create, reuse, revise and re-purpose digital and non-digital artifacts for a given audience, seeking and using feedback to improve work.	Design and create digital artifacts or processes for a given audience, with attention to successfully serving a client's purposes and needs.
	Prepare simple plans, design, and test prototypes of solutions or answers to questions. Use feedback to revise.	Learn how a design process works to generate ideas, consider solutions, plan to solve a problem or create innovative products.	Document the use of an iterative design cycle that begins with a thorough investigation of the users' needs to produce a prototype for testing.	Produce and publish creative works and projects using a range of devices to add value to the world or to achieve new solutions.Seek and use feedback.

Investigator and Problem-Solver *Students use technology to identify authentic problems, research responsibly, synthesize learning, and develop possible systems and solutions.,* Students: PR-1: Empathize and communicate with various stakeholders PR-2: Plan and execute focused information/data searches for investigations; PR-3: Generate, organize, analyze and evaluate validity of research and data; PR-4: Explain and implement solutions in tasks and challenges	Locate and record information from a given set of digital sources. Demonstrate awareness concerning reliability of digital information.	Select digital tools to collect, organize and analyze data to evaluate theories or test hypotheses.	Evaluate, select, and utilize information/media sources and digital tools based on the appropriateness for specific tasks.	Demonstrate analytical problem-solving, design thinking, and computational thinking in relevant problem-solving activities.
	Choose tools that help with the research process to find, record and analyze data. Use graphics that help explain solutions.	Choose tools for the research process to gather, classify and display information in meaningful ways.	Use the research process to collect and analyze information/data and evaluate resources for accuracy, perspective, credibility and relevance.	Use advanced search tools and techniques, simulations, and digital models to locate or generate precise data and information that supports the development of new understandings.
	Choose tools to represent, explain, and reflect on results of investigations.	Learn searching techniques and practice how to evaluate sources for accuracy, perspective, credibility and relevance.	Create and use databases and structures efficiently to organize, analyze, extract, and represent data to solve problems across disciplines.	Design, modify and manage complex digital solutions for a range of audiences and purposes.
	Practice strategies to persevere in solving problems	Demonstrate strategies to persevere in solving complex problems	Share strategies to persevere in solving increasingly complex problems.	Persevere in investigating, solving, and presenting solutions to complex authentic problems.
Communicator and Collaborator	Choose ICT tools to safely share and exchange	Choose digital tools to safely share, exchange	Use electronic communication tools to	Routinely interact, collaborate, and publish

Students use digital tools to broaden their perspectives, increase empathy, and work effectively in teams. Students: CC-1: Select, plan, and participate in technology-facilitated communications; CC-2: Exchange ideas and solve problems in collaborative learning communities; CC-3: Learn, explain thinking, and/or teach through communications technologies; CC-4: Participate in collaborative online ventures that create and share group learning.	information and ideas with age-appropriate audiences.	information, and collaborate with other learners with different backgrounds.	explore and guide inquiry through multicultural perspectives with other learners.	with peers and experts, employing a variety of digital environments and media formats.
	Collaborate with others to develop solutions and safely publish them in a variety of ways (visual, audio, written).	Build a network of experts and peers within school policy and customize digital environments to enhance learning.	Build and utilize a network of experts and peers from different communities (within school policy) and customize digital environments to enhance learning.	Participate in collaborative online ventures, individually and in teams, communicating effectively with multicultural audiences.
	Identify and try different team roles in collaborative work.	Organize teams so that members' roles are defined. Try different team roles in collaborative work.	Participate in teams by assuming different roles and taking on different responsibilities that ensure team success. Reflect on participation.	Participate in teams that may include members collaborating online to gain expertise and perspectives in solving problems. Reflect on the process.
Learner and Computational Thinker	Break down problems into smaller steps and record them with drawings or video.	Break down complex problems into steps to create and modify directions for finding	Practice defining and breaking down problems to solve through patterning, data analysis,	Design, use, and evaluate computational abstractions that model the state and behavior of real-world problems, and

Students employ algorithmic thinking to propose and automate solutions to authentic problems and systems. Students: CT-1: Recognize patterns and break down complex problems into steps (decomposition);		digital solutions more easily.	modeling, and algorithmic thinking.	document client interactions.
CT-2: Apply fundamental principles and concepts of computer science, including synthesis, abstraction, logic, algorithms, and data representation;	Use small steps to draw or write instructions on how a problem can be solved more easily using repeated patterns.	Explore concepts related to repeated patterns and algorithmic thinking through practical experience in writing and debugging computer programs that accomplish a task.	Use programming languages to design debug, and demonstrate possible solutions to a variety of problems or learning game experiences.	Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems.
CT-3: Analyze problems in computational terms, and have repeated experience of designing and writing computer programs to solve and automate them; CT-4: Use technology to create models and simulations to investigate and/or explain systems.	Recognize patterns and understand basic coding concepts to create and debug simple programs.	Learn how to use computer programming to create models, tell stories, show how something works, or make learning games.	Transfer programming skills to use new languages and systems that can solve and automate solutions to problems.	Document innovative use of an design cycle, evaluating and explaining the strengths and weaknesses of alternative designs to meet a client's needs. Reflect on the importance of empathy and feedback.
Global Digital Citizen *Students act in ways that are safe, legal, and ethical*	Understand the concept of digital ownership and how to respect the ideas and work of others	Practice digital security strategies for protecting digital information and for	Practice and advocate for a range of ways to use technology safely, respectfully, responsibly,	Independently apply and advocate for appropriate strategies to protect rights, identity, privacy

while learning and working in an interconnected digital world. Students: DC-1: Use systems, such as Copyright and Creative Commons, to acknowledge intellectual property rights for all media and to share own work; DC-2: Apply personal and digital information security protocols routinely; DC-3: Create and monitor a personal digital footprint responsibly; DC-4: Identify and evaluate the impacts of current and emerging ICT in society.		being safe, respectful and legal online.	and securely, including protecting personal online identity and privacy.	and emotional safety of self and others online.
	Practice safe, respectful, and cooperative use of online tools and materials.	Recognize the importance of digital ownership and practice citing intellectual property in work.	Learn and apply practices that comply with legal obligations regarding ownership and use of digital products, resources, and services.	Demonstrate compliance with legal obligations regarding the ownership and use of digital products, resources, and services.
	Understand the concepts of public Internet, privacy, and digital footprints.	Learn to manage and safely move data as digital technology changes.	Experience current and emerging ICT systems, learning how to manage data and safely move it between systems.	Manage digital data and processes comfortably between desktop, mobile, cloud environments, and other emerging ICT systems.
	Recognize that technology can affect our world positively and negatively.	Discuss the impacts of current and emerging technology, including how digital waste affects our world.	Identify impacts of current and emerging technology on societies; discuss ways to create equitable access and manage digital waste.	Understand responsibilities in creating and utilizing emerging technologies, their effects on societies, and equitable access.

ICT Program Implementation Timeline Information

	2020-2021	2021-2022	2022-2023
Program Development and Tech Integration	**Technology Transformation Team Formation(TTT)** - Purpose; - Composition; - Time commitment; - Set Goals; **ISK K-12 Digital Citizenship Program**: Work with teachers and principals to upgrade resources, and evaluate implementation. **Digital Strategies:** introduction and inclusion in units. **Student Portfolio Rollout** - Support for teachers, students, and parents in **Portfolio roll out** of SeeSaw and Bulb; - Develop common **effective portfolio practices** by division and supported by tech coaches. **STEM Pathways:** - further development based on pilot year; - Design presentation formats at ISK Maker Expo. **Approved ISK Apps and Extensions** - Develop clear **apps and extensions request process and timeline;** - Update and maintain **ISK list of approved apps and extensions** for divisions. **Build Technology Resources Toolkit**	**Technology Transformation Team (TTT):** - Set goals **BOY and EOY Teacher and TA inventory:** Implement **Review and share the Information from the Audit** from end of 2020-2021 **ISK K-12 Digital Citizenship Program:** Refine documentation, upgrade resources, and evaluate implementation; **Digital Strategies:** Review and refine for units and assess their usage; **Student Portfolio Development** - Support **effective portfolio practices,** including goal setting, Aims demonstration, tech skills documentation; **evaluate use of portfolios divisionally and report needs (**Tech Integration Coordinator and Coaches) **STEM Pathways** - Expand system to other disciplines; **ISK list of approved apps and extensions** for divisions: Update and maintain; **Use of ISK Design Spaces:** Review for effectiveness and future planning; **Technology Resources Toolkit:** - Continue to build and modify with teacher input;	**Technology Transformation Team (TTT) Goal Setting** at the beginning of the year. **ISK K-12 Digital Citizenship Program** Update and evaluate with documentation; (accreditation report will be needed) **Digital Strategies:** update and evaluate effective **use of** by teachers and students; **Student Portfolio Development** Evaluate use of portfolios and set new goals - goal setting procedures; - Aims demonstration; - Tech skills growth; **Approved Apps:** Maintain **Technology Resources Toolkit:** Update and evaluate

	● **Design BOY and EOY inventory** of Teacher and TA expertise and needs with tech. ● **Audit of the K-12 tech integration program** with emphasis on: ○ Digital Citizenship; ○ Levels of Technology in Teaching and Learning; ○ Computational Thinking and Coding; ○ Portfolio progress; ○ Use of Design spaces; ○ 1:1 programs; ○ Shared devices programs; ○ More to be determine by TTT. ● Set 2021-2022 goals based on the results of the Audit.	○ Include student exemplars/rubric ● Develop method for **tracking progress in technology plan goals** for the year.	
Assessment / Tracking System	● **Collect evidence of student learning** and begin process of rating according to a rubric ● Develop certification methods for **tracking student skills** acquired in the ISK Design Spaces	● Organized tracking of Certificates as assessment of student skills; ● Use of Portfolios to help track use of technology in meeting the Aims.	● Evidence-based reports on progress and growth of technology infusion through: ○ Exemplars assessed through rubrics; ○ Skills tracked through certificates; ○ Student portfolio evidence
Materials / Resources Needed	● Committee of interested people to perform and evaluate Audit ● Small budget for Maker Expo and Pathways presentations event	● Budget money for Maker Expo and Pathways presentations event; ● Time and expertise to train students in self-evaluating portfolios in terms of tech and Aims.	● Budget for expanded Maker Expo to include community innovators.
Co Curricular Options	ES: ● ES First Lego League Junior ● 4th- 5th grade robotics option ● Previous year's offerings reviewed and new to be determined by ES.	ES: ● Previous year's offerings reviewed and new to be determined by ES. MS: ● STEM ● Robotics ● Programming ● MS First Lego League	ES: ● Previous year's offerings reviewed and new to be determined by ES. MS: ● Previous year's offerings reviewed and new to be determined by MS.

	MS: ● STEM ● Robotics ● Programming ● MS Collaborative First Lego League ● 3D design and printing ● Independent STEM Projects HS: ● ISSEA STEM Robotics, Science and Math ● 3D design and printing ● Design Studio ● Plastiki Rafiki ● Independent STEM Projects	● 3D design and printing ● Independent STEM Projects HS: ● ISSEA STEM Robotics, Science and Math ● 3D design and printing ● Design Studio ● Plastiki Rafiki ● Independent STEM Projects	HS: ● Previous year's offerings reviewed and new to be determined by HS.
Materials / Resources Needed for Co-curricular	● Funding for supplies to develop rich tech co-curricular experiences.	● Funding for supplies to develop rich tech co-curricular experiences.	● Funding for supplies to develop rich tech co-curricular experiences.
Integration Training / Professional Learning (PL)	● Training on New **Curricular Program;** ● School-wide training on **purpose and philosophy of portfolios;** ● Introduction and Support for teachers, students, and parents with **Seesaw and Bulb;** ● Sharing and development of students' and teachers' PLNs to include appropriate global connections; (Work with DTL) ● Evaluate the inclusion and use of the ICT Digital Strategies in curricula and transdisciplinary units. ● Support Faculty using **Google Shared Drives**	● Continuing support for teachers, students, and parents with **Seesaw and Bulb;** ● Sharing and development of students' and teachers' PLNs to include appropriate global connections; (Work with DTL) ● Evaluate the inclusion and use of the ICT Digital Strategies in curricula and transdisciplinary units; ● Support Faculty using **Google Shared Drives.**	● Ongoing training in curricular platform and inclusion of digital strategies; ● Portfolios as part of assessment; ● Effective PLN's; ● Support Faculty using **Google Shared Drives.**

Materials/ Resources Needed	• Scheduled time for training with curricular system and portfolio platforms • Time during divisional meetings to share	• Scheduled time for training with curricular system and portfolio platforms • Time during divisional meetings to share	• Scheduled time for training with curricular system and portfolio platforms • Time during divisional meetings to share

Technology Plan Implementation Timeline

	2020-2021	**2021-2022**	**2022-2023**
School-wide Equipment and Infrastructure	• Upgrade node switches • Plan and budget for the upgrade of ISK's WIFI network to WIFI 6 • Evaluate and weed / upgrade servers as needed • Scheduled Equipment Replacement • Migrate current large drive folders to smaller more focused Shared Drives	• Begin the upgrade of ISK's WIFI network to WIFI 6 • Scheduled Equipment Replacement	• Continue the upgrade of ISK's WIFI network to WIFI 6
School-wide Technology support	• Additional Tech Support person, located between helpdesk and AV support / repair	• No Change in ISK contracted employees	• No Change in ISK contracted employees
School-wide Instructional Staffing	• HS Tech Integrationist	• No Change	• No Change
School-wide technology software and resources	• Whole school software licensing / annual subscription renewals • Classroom / Department Resources (software, online resources, & texts) as per Classroom / Departmental Budgets • iPad / Chromebook Apps support for whole school	• Whole school software licensing / annual subscription renewals • Classroom / Department Resources (software, online resources, & texts) as per Classroom / Departmental Budgets • iPad / Chromebook Apps support for whole school	• Whole school software licensing / annual subscription renewals • Classroom / Department Resources (software, online resources, & texts) as per Classroom / Departmental Budgets • iPad / Chromebook Apps support for whole school

	● Resources to support Design Lab learning	● Resources to support Design Lab learning	● Resources to support Design Lab learning
Design Lab Initiatives	● Design Labs: Evaluation of how Design Lab is being used for learning.		
Library	● Evaluate circulation needs in Helpdesk area and source / install required solution (budget permitting)		
Training / Professional Learning	● Continue support channels from previous years ● Consider new ways of supporting teachers and students.	● Continue support channels from previous years ● Consider new ways of supporting teachers and students.	● Continue support channels from previous years ● Consider new ways of supporting teachers and students.

Tech Plan Estimated Budget Summary

	2020-2021	2021-2022	2022-2023
Human Resources	Instructional Staff: ● Director of Technology ● Educational Technology Coordinator - assisting with HS Integration ● ES ICT Teacher/ Coach with TA ● MS ICT Teacher / Integration Coach with TA ● HS ICT Teacher ● HS Part-time IT Teacher ● Design / Fab Lab Technician / TA ● Makerspace TA Support Staff: ● Network Systems Manager ● 2 Technicians Level 1- (Systems, ISK Database Management and Servers) ● 3.5 Technicians Level 2 – Support, Ipad Management) ● 3.5 AV Technicians – Events, Peripherals, Multimedia	Instructional Staff: ● Director of Technology ● Educational Technology Coordinator - assisting with HS Integration ● ES ICT Teacher/ Specialist with TA ● MS ICT Teacher / Integration Specialist ● HS ICT Teacher ● HS Part-time IT Teacher ● Design / Fab Lab Technician / TA ● Makerspace TA Support Staff: ● Network Systems Manager ● 2 Technicians Level 1- (Systems, ISK Database Management and Servers) ● 3.5 Technicians Level 2 – Support, Ipad Management) ● 3.5 AV Technicians – Events, Peripherals, Multimedia	Instructional Staff: ● Director of Technology ● Educational Technology Coordinator - assisting with HS Integration ● ES ICT Teacher/ Specialist with TA ● MS ICT Teacher / Integration Specialist ● HS ICT Teacher ● HS Part-time IT Teacher ● Design / Fab Lab Technician / TA ● Makerspace TA Support Staff: ● Network Systems Manager ● 2 Technicians Level 1- (Systems, ISK Database Management and Servers) ● 3.5 Technicians Level 2 – Support, Ipad Management) ● 3.5 AV Technicians – Events, Peripherals, Multimedia
Costs			
Operational Summary	● Communications (Internet) ● Licenses and Software ● Renewal of 3 year Internet Filter license ($12,000/year) ● Spares/ Tools ● Consumables ● Freight ● Maintenance ● Maintenance contracts	● Communications (Internet) ● Licenses and Software ● Renewal of 3 year Internet Filter license ($12,000/year) ● Spares/ Tools ● Consumables ● Freight ● Maintenance ● Maintenance contracts	● Communications (Internet) ● Licenses and Software ● Renewal of 3 year Internet Filter license ($12,000/year) ● Spares/ Tools ● Consumables ● Freight ● Maintenance ● Maintenance contracts
Costs	$335,000	$360,000	$370,000

Capital	- Computer equipment - Server upgrades - Classroom technology	- Computer equipment - Network upgrades - Server upgrades - Classroom technology	- Computer equipment - Network upgrades - Server upgrades - Classroom technology
Costs	$262,000	$300,000	$300,000
Budget Totals	$597,000	$660,000	$670,000

ISK One to One Program

Vision

A 1-to-1 program is an essential element for success of our technology visions of how students learn in the 21st century. The opportunities for our students to increase access to information, collaborate through social interaction, and create and share digital content exponentially increase in a 1-to-1 environment.

The High School Device

The ISK technology team recommends the adoption of the MacBook Pro or Macbook Air as the recommended model for our BYOD HS 1-to-1 program. Basis for this decision is as follows:

Rationale:
- ISK predominantly uses "Mac" throughout the school
- Technology support is already trained in supporting Macs
- Teachers all are issued MacBooks and are familiar with the operating system and applications
- A uniform device will facilitate ease in planning lessons and supporting students during classes

Requirements and procedures for student laptop:
- A minimal required package of software will be required.
- Families will purchase devices, giving the students an added incentive to be responsible and accountable for their laptop.
- Provisions will be put in place for students joining ISK during the school year, such that we will have some loaners available or a student may use a PC computer while a Mac is sourced.
- During school hours and whenever connected to the ISK network students will be required to adhere to the all ISK related student policies and the ISK Responsible Use Agreement.

Required Software:
- Standard package that comes with MacBooks
- Adobe reader
- Safari, Firefox and Chrome Browsers
- Java
- Adobe Flash
- Additional software may be required for specific courses

The MS & ES Device

Rationale

The ISK Technology Integration Specialists have recommended iPads as a 1-to-1 device, since iPads are an ideal tool for our younger students to be creative. iPads are easy for students to manage, they have a built in camera for video and still pictures, microphone, and tools that allow for rapid remixing. iPads also allow the user to freehand draw, print / write directly into applications. They are compact, durable and have long battery life. iPad apps also offer a wide variety of educational software suitable to MS and ES levels.

After evaluation of the Grade 7 and 8 program by teachers and students, it was decided to provide a 1:1 Chromebook program for Grade 7 and 8 students. The main reasons for this change are:
- The Grade 8 Passion Project requires more access to a keyboard;
- Some of the G Suite applications work better on a Chromebook than on an iPad;
- Many of the apps available on the iPad are becoming available on the Chromebook;

Device Ownership
ISK provides ES and MS students access to iPads or Chromebooks and a suite of educational apps.

Device Insurance
Families of MS Students who take home their devices are offered an optional insurance program at the start of every year or upon joining ISK. Information will be sent home at the start of each year. This is an ISK self-insurance program in which any premiums not used during the year for fixing or replacing devices will be used to lower future insurance costs or increase availability of items such as spare chargers in the MS classrooms.

Software (Apps)
A complete list of current Apps can be found in the software section of this document.

Library Planning Summary

Definition of the Library Spaces:
For the purpose of this document, the Library is considered those spaces which the librarians are currently responsible for supervising and maintaining: the main space, the Group Study rooms, the Library Lab, the ES Library and Picture Book Room, the Library Office and Workroom.

Current Hardware Status (also included in full hardware summary):
- Library software: Follet Destiny
- Desktop Computers: iMacs
    - 2 Circulation desk computers
    - 16 ES student computers in the ES teaching area:
    - 6 MS Student Computers in the Lobby:
    - 5 HS Student Computers in the Lobby:
    - 21 Library Learning Lab computers:
- Laptops:
    - 6 Laptops for Alexandria access
    - 2 Librarians MacBook Pro
    - 84 Kindles - Inventory by Library
- Printers (2)
    - LibraryKyocera at Main Circulation Desk [FS-6525MFP-Kyocera]
    - LibraryColor - Kyocera TASKalfa 3050ci KPDL in Library Lab
- 4 Projectors (ES, Reference, Study Room 1 and Library Learning Lab)

Technology Use Forms and Agreements

All forms and agreements for staff and students are available online at the ISK Website. Links to these agreements are provided below.

Staff Agreements and Forms

Responsible Use Agreement

Admin Rights to Assigned Computer

ISK Code of Ethics

Social Media Guideline

Equipment Checkout

Summer use of Laptop

Wireless Access for Personal Devices

Student Agreements and Forms

Student and Parent iPad Agreement

Responsible Use Agreement

Wireless Access For Personal Devices

IT Staff Agreements and Forms

System Administrator Acceptable Use

Technicians Acceptable Use

Confidentiality Protocol

Appendix One: Classroom Standard Tech Equipment

Classrooms Standard
- **Display device, LCD projector and Screen or TV**
- **Document Camera**
- **Speakers** - mix of desktop speakers and portable bluetooth speakers appropriate for the classroom environment
- **Computer or Laptop**
- **Wireless Access** (Campus Wide)
- Convenient Access to a **Printer** – one network printer within each pod/block of classrooms
- Ability to Control and Annotate Projected Desktop (This may be done through Smartboard, Apple TV, AirServer software, iPad app or other emerging technologies)
- Multiple Connection Points (in classrooms)

Current Software

School-Wide		
Adobe CCE for K-12	iBooks	Notes
Audicity	iDVD	Numbers
Automator	Image Capture	Pages
Burn	iMovie	Photo Booth
Chess	iPhoto	QuickTime Player
GarageBand	Keynote	Safari
Google Chrome	Maps	TextEdit
Google Drive	Microsoft Office 2016	VLC

ICT Labs Software Installed		
ES Lab	**MS Lab /** **Library Cart**	**HS Lab / Library Lab /** **Design Lab**
Algodoo	Algodoo	123D Design
Animation-ish Classroom Edition	Animation-ish Classroom Edition	Algodoo
Anime Studio Debut	Anime Studio Debut (10 licenses)	Animation-ish Classroom Edition
Aperture	Aperture	Anime Studio Debut
AppInventor	AppInventor	Aperture
AudioScore Lite	AudioScore Lite	AppInventor
Autodesk	Autodesk	Arduino
Blender	BryteWaveK12	AudioScore Lite
BryteWaveK12	ChemAxon	Autodesk
Comic Life	Comic Life 2	Blender
Comic Life 2	Dropbox	BlenderPlayer
Dropbox	EV3 Curriculum	BryteWaveK12
Enlight	EV3 Education (Updated)	ChemAxon
Evernote	Evernote	Comic Life
FaceTime	FaceTime	Comic Life 2
FileMaker Pro 14	FileMaker Pro 14	Dropbox
Firefox	Firefox	Enlight
Flv Crunch	Flip Player	EV3 Curriculum
Follet Shelf App	Flip4Mac	EV3 Education (Updated)
Font Book	Flv Crunch	Evernote
GCompris	Follet Shelf App	FaceTime
Gimp	Font Book	FileMaker Pro 14
Google Earth	GCompris	Final Cut Pro
Google SketchUp 8	Gimp	Firefox
GSP5	Google Earth	Flip Player
HandBrake	Google SketchUp 8	Flv Crunch
iBooks Author	GSP5	Follet Shelf App
Inspiration 9 IE	HandBrake	Flip4Mac
Internet Everywhere	iBooks Author	Font Book
Internet Everywhere 3G+	Inspiration 9 IE	GameSalad
Kid Pix Deluxe 3D	Introduction to Programming EV3	GCompris
Kidspiration 3 IE	Internet Everywhere	Gimp
Kindle	Internet Everywhere 3G+	Google Earth
LEGO MINDSTORMS Education EV3	Introduction to Programming	Google SketchUp 8
LEGO MINDSTORMS EV3	Jing	Greenfoot 2.4.2
minecraftedu	Kidspiration 3 IE	Greenfoot 2.4.2 2
	Kindle	

NWEA Lockdown Browser OpenOffice Pages Paintbrush Paragon NTFS for Mac OS X PCClient PhotoScore Lite ProScope HR Prezi Safe Exam Browser Scratch 1.4 Scratch 2 Screencast-O-Matic SketchBook Snapshot SketchUp Skype SMART Technologies Stickies Sunburst TextWrangler Timeline 3D TIPP10 Tux Paint UnRarX Xcode	LEGO MINDSTORMS Education LEGO MINDSTORMS EV3 Home Edition EV3 Updated minecraftedu NWEA Lockdown Browser OpenOffice PhotoScore Lite ProScope HR Safe Exam Browser Scratch 1.4 Scratch 2 Screen Recorder Launcher Send Anywhere SketchUp SketchUp Viewer Skype Stickies TextWrangler Timeline 3D Tux Paint UnRarX Xcode	GSP5 HandBrake iBooks Author Inspiration 9 IE Introduction to Programming EV3 Internet Everywhere Internet Everywhere 3G+ iStopMotion Pro (Mac App Store) iStopMotion Pro (Mac App Store) 2 Jing Kidspiration 3 IE Kindle KISS LEGO MINDSTORMS Education LEGO MINDSTORMS EV3 Home Edition EV3 minecraftedu NWEA Lockdown Browser OpenOffice PhotoScore Lite ProScope HR Safe Exam Browser Scratch Screencast-O-Matic 2 SingleFramer folder SketchUp SketchUp Viewer Skype Stickies TextWrangler Timeline 3D Tux Paint Unity UnRarX Xcode

Subscriptions/Licensing

Tech Office Netgear WC License (150 AP) Ruckus SmartZone (80 AP) Mojo Helpdesk Paragon NTFS for Mac OS X PaperCut Web Hosting Service - Finalsite PowerSchool	**School-Wide** Turnitin **HS** Naviance	**SSS (managed through SSS Department)** BrainPop ESL Headsprouts Spelling City RazKids Reading A to Z
Library Follet Destiny NoodleTools BrainPop	**MS** IXL Hapara TeacherDashboard	

Selection of Educational iPad Apps

Appendix Two: Current Hardware Summary

All Classrooms
Projector, Document Camera, Speakers, Desktop Computer or Laptop

Commons Level 0
- 2 Computer Labs with Projectors
- 1 MS MakerSpace with Projector
- 1 Robotics Lab with Projector
- 27 Computers in General Area
- 6 OPAC Stations (MacBooks)
- 2 Projectors in Common Area
- 1 Projector in Study Room
- Kindles - Inventory by Library (84)

iPads
- ES, ES-SSS and ES Teachers (541 total)
- HS - 5
- MS, Grade 6 students and shared units in Modern Languages and PE(212)

Laptop Carts
- 5 ES Chromebook Carts
- 1 MS Chromebook Carts
- 10 ES ipad Cart
- Library Cart - 19 Units

Laptops / Chromebooks
- Student Use – 69 MacBooks,
  - 32 - loaner cart (Macbooks >5 years old)
  - 8 - exam cart
  - 5 - opac
- Student Use – 449 Chromebooks,
- Staff Assigned - 191 Macbooks,

Desktop iMacs
- Student Use, in labs and common areas 137
- Staff Assigned 115
- Other loaners / spares - 84

Mac Minis
- Support Staff - 2

Servers
- MAC Servers(X server) - 6
- MAC Minis (as servers) - 11
- Windows based servers - 3

Printer and Copiers
- Networked Printers - 57 (B/W - 51, Color - 6)
- Networked Copier/Printer (Leased) - 15 (B/W - 13, Color - 2)
- Small Office Printers - 9 (B/W - 9, Color - 0)

Digital Cameras Recorders

- Digital Cameras - 39
- Video Cameras - 14
- Audio Recorders - 6
- Document Cameras - 72
- LCD Projectors - 150