

Elementary ICT

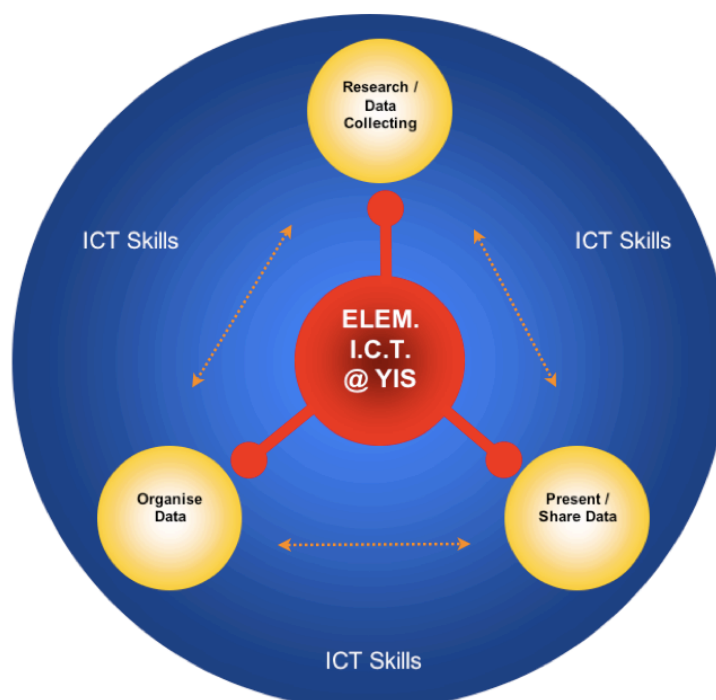
Philosophy:

Technology includes much more than the knowledge and skills related to computers and their applications. It exists in a broad social environment and it is important that students use technology in this wider context and relate their knowledge to the world beyond the school. The Elementary Information & Communication Technology (ICT) program at YIS is both a form of knowledge and a language that enables students to engage in cross-curricular learning. In the context of an inquiry-based curriculum, and in connection with the school's Programme of Inquiry, YIS aims to integrate ICT into the broad curriculum creatively in order to enable learning through multiple intelligences and active learning through all the senses. This recognises and enhances several curriculum areas while also building and utilising technological skills. Students use ICT as a tool to apply to the curriculum. ICT is defined as using computers, cameras, video cameras, projectors and printers etc.

Rationale:

In 2005, YIS dismantled the Elementary ICT suite. The new approach brought computers and laptops into the classrooms. Each grade level is provided with a class set to share. A full class set is then divided into the three classes to use (K and grade 1 share a class set). With this, YIS hopes to be able to further integrate skills, concepts and inquiry to create links between our students and the global community. The perspective has been shifted off technological planning and onto creative systems planning (e.g. mind-mapping, graphic organisers etc.). The focus has been placed on holistic student learning and inquiry rather than considering how to use and implement a piece of technology through broken unrelated skills based activities. Through the ICT curriculum, students apply thinking skills in order to create and present meaningful products.

An Elementary ICT facilitator is available to assist K-5 classes working alongside the teacher and students in order to aid and build essential skills. In this environment, every student has a laptop and/or desktop to use. Teachers are encouraged to utilise ICT as much as possible in their classrooms outside of the ICT Facilitator's visit to class. ICT is primarily used to collect research, organise and present data. Students share their findings with peers and relevant communities. General ICT skills flow through these three basic phases (refer to the diagram below) and circulate around them. Each sector may necessitate general ICT skills and each phase may draw upon or impact the other. ICT skills flow through all these areas in a permeable manner. Certain skills are taught in order to properly function a piece of software and certain programs are used to teach and enhance specific ICT skills.



Mac computers are used with the main software/programs being *iLife (iMovie, iPhoto, GarageBand)*, *iStopMotion*, *Comic Life*, *KidPix*, *Kidspiration*, *Inspiration*, *Microsoft Office (Word, Excel, Powerpoint)*, *iWork (Keynote, Pages)* as well as using the internet, email, *BrainPop*, typing programs such as *BBC Typing* (a free internet based typing program available at <http://www.bbc.co.uk/schools/typing>) and *Typing Pal*. ICT at YIS is used in order to build communication, social awareness, research and the presentations of findings both in and out of the classroom.

Elementary ICT Scope & Sequence

The following outcomes are used as a guide for grade levels. Some grades/classes may go beyond these benchmarks if the teacher deems it appropriate.

When grades share laptops, teachers/classes must give up their individual class set to the scheduled class

Age Range 3-4 years: ELC

Overall expectations – By the end of ELC, the students will be able to...

- Identify the computer as a machine that helps people work and play
- Exhibit ethical behavior in the use of computers and other technologies (cameras, light tables etc.)
- Demonstrate correct care, use and appreciation of computers and ICT
- Begin to become familiar with such programs as *KidPix* as a drawing tool and begin to create drawings and patterns etc.
- Use technology to enhance their curriculum with digital cameras (on/off, focusing, saving in iPhoto), photocopiers (enlarging/reducing, number of copies), overhead projectors, CD players, smart-board etc.
- Begin to save some files on a computer and/or print with teacher assistance

Age Range 5-6 years: Kindergarten

Overall expectations – By the end of kindergarten, the students will consolidate their skills from the previous year and be able to...

- Demonstrate correct care and use of computers/laptops and other electronic devices/AV equipment
- Begin to understand health and safety issues such as the importance of correct posture when using computers (i.e. slouching)
- Identify different hardware/software components of a computer system (mouse, screen, desktop etc)
- Perform basic operations (i.e. turn on/off, check battery level)
- Begin to locate and use letters and numbers on a keyboard
- Use the mouse to point and click on items, open and save a file and connect to the school's server (logging on/off using an ID and password) and gain access to their individual folder
- Use the program *KidPix* in choosing a drawing tool, adding and changing colour, inserting and altering text, using the rubber stamp mode, creating patterns, drawing pictures and creating a basic slideshow
- Become familiar with the program *Kidspiration* to create basic mind-maps with groupings, sub-groupings as well as adding pictures and text
- Begin to save files with teacher assistance
- (Main software used is *KidPix* and *Kidspiration*)

Age Range 6-7 years: Grade 1

Overall expectations – By the end of grade 1, the students will consolidate their skills from the previous year and be able to...

- Begin to use the internet and teacher cached websites (or software) to access information, gather information, interpret and/or record information
- Begin to communicate their findings or ideas via software or other technologies (i.e. project presentations, displays, classroom tasks)
- Respect technology as a set of tools (i.e. various pieces of software may perform different tasks and have different options available)
- Share technological knowledge with others and accept information from others in forms of projects and presentations of work
- Use software, websites or other forms of technology to enhance the curriculum
- Use their knowledge to log onto the network, open their student folder and open a selected file from their folder independently

- Begin to save files independently
- Become familiar with computer terms (i.e. desktop, dock, icon, toolbar, etc.)
- Continue to build and improve their keyboarding skills by locating letters, numbers and special keys on a keyboard (i.e. delete key, shift key, tab key)
- Develop an awareness of use of a computer system to help users of the YIS library and librarians manage and use resources
- (Main software used is *KidPix*, *Kidspiration*, *Microsoft Word* and *cached websites with teacher assistance such as BrainPop and BrainPopJr.*)

Age Range 7-8 years: Grade 2

Overall expectations - By the end of grade 2, the students will consolidate their skills from the previous years and be able to...

- Identify computers as a tool
- Have a basic understanding of the acceptable uses of computers and technological devices
- Begin to become familiar with drop down menus
- Identify the internet as a source of information and explore teacher approved research sites on various topics
- Gather, organize and display data (i.e. with *Kidspiration* or *Microsoft Word*)
- Increase their awareness on the keyboard's layout and demonstrate proper keyboarding techniques for upper and lower case letters as well as basic typing skills (i.e. home row)
- Navigate through *Microsoft Word* (use the Formatting palette to select a desired font, change text size, text colour etc.), save and/or print and use standard formats (i.e. font size 12)
- Become familiar with *Microsoft PowerPoint*
- Identify the computer catalogue as a means of finding relevant information and resources in the YIS Library
- (Main software used is *KidPix*, *Kidspiration*, *Microsoft Word*, *PowerPoint*, *cached websites such as BrainPop and BrainPop Jr. as well as BBC Typing*)

Age Range 8-9 years: Grade 3

Overall expectations - By the end of grade 3, the students will consolidate their skills from the previous years and be able to...

- Determine the usefulness of different information sources in regards to the quality of information obtained using telecommunication technologies and begin to conduct search strategies to locate information electronically (websites and photos)
- Improve basic typing skills and techniques
- Use word processing skills including the editing process
- Create a bar-graph using *Microsoft Excel*
- Create a multimedia project as a group or as an individual activity (i.e. *PowerPoint*, *iMovie*) and cite sources of copyrighted material
- Further develop their *PowerPoint* and/or develop *Keynote* skills
- Make the transition from *Kidspiration* to *Inspiration* in creating brainstorm and mind-maps
- Begin to use digital cameras and video recorders if necessary
- Save photos from a digital camera and/or websites (and create albums in *iPhoto* if necessary)
- Create and present a comic in *ComicLife*
- Record dialogue in *GarageBand* (with background music and effects if appropriate)
- Develop an ability to use the author facility of the YIS library computer catalogue
- (Main software used is *KidPix*, *Inspiration*, *Microsoft Word*, *PowerPoint/Keynote*, *iPhoto*, *ComicLife*, *GarageBand*, *Google*, *BBC Typing and Typing Pal*, *Library Catalogue System*)

Age Range 9-10 years: Grade 4

Overall expectations - By the end of grade 4, the students will consolidate their skills from the previous years and be able to...

- Use technology tools to collect, analyze and display data (i.e. using note-taking templates or creating their own)
- Maintain, expand, and improve keyboarding techniques
- Recognize word processing terms and functions (i.e. inserting text over a photo)
- Create, format and edit a word processing file to make indicated corrections
- Define spreadsheet terms and create a spreadsheet chart
- Maintain and improve mind-mapping skills
- Evaluate information found via the web for content and usefulness

- Create a media project independently either with still photos, video and/or using sound via GarageBand and/or iMovie (or another suitable option)
- Use templates or create their own to display information in print form (e.g. *Microsoft Word's* newsletter, brochure etc., or *iWork's Pages*)
- Become familiar with *Keynote* as an alternative to *PowerPoint*
- Become familiar with *Pages* in creating documents
- Develop an ability to use and discriminate between the author, keyword, title and subject fields/options of the YIS computer catalogue
- (Main software used is *Inspiration, Microsoft Word, PowerPoint, Excel, Garageband, Pages, Keynote, iMovie, ComicLife, Typing Pal, Library Catalogue System*)

Age Range 10-11 years: Grade 5

Overall expectations - By the end of grade 5, the students will consolidate their skills from the previous years and be able to...

- Identify the need for "Acceptable Use Agreements" (i.e. e-mail etiquette, citing sources vs. plagiarism)
- Create graphical organisers for content areas independently (i.e. mind-maps, note-taking using tables, charts and/or spreadsheets)
- Use a digital/video camera for academic projects
- Improve keyboarding skills in terms of speed and accuracy
- Understand the value of internet resource sites
- Validate sources on their factual data versus opinions
- Select refined search strategies to obtain information
- Maintain and improve their iWork suite skills (*Keynote* and *Pages*)
- Select the most appropriate technological format to display data gathered through research
- Create a multimedia project independently
- (Main software used is *Inspiration, Microsoft Word, PowerPoint, Excel, iMovie, Garageband, Pages, Keynote, ComicLife, iStop Motion, Typing Pal, Library Catalogue System*)