

Baseline ICT Standards for Pupils (Version 4)

At the end of the Primary and Secondary education, pupils will have acquired a basic set of **ICT skills**:

Primary pupils will be able to

- a. Operate computers and applications in ICT-enabled learning environment
- b. Search for information and communicate over the Internet
- c. Create a short document using a word processor
- d. Represent tables of information in word processors and spreadsheets
- e. Create a short presentation with multimedia elements
- f. Collect data using ICT tools

Secondary pupils will be able to

- a. Search independently for information and communicate over the Internet
- b. Create a publication (e.g. report, pamphlet and newsletter) using a word processor
- c. Integrate digital media from different sources into a document, spreadsheet and presentation
- d. Represent data using graphs and charts in word processors and spreadsheets
- e. Use built-in functions for calculations in a spreadsheet
- f. Create and edit media elements for a multimedia presentation
- g. Transfer data collected from ICT tools to computers

At the end of the Primary and Secondary education, pupils will also have acquired skills related to ethical and legal as well as safe and responsible use of ICT, which is aligned to the Cyberwellness Framework¹:

Primary and Secondary pupils will

- a. Use appropriate language, demonstrate mutual respect and observe etiquette in communication
- b. Respond appropriately when encountering illegal or unsuitable materials on the Internet
- c. Be aware of and take precautionary steps against the dangers of cyber abuse
- d. Respect intellectual property and comply with copyright laws and regulations
- e. Prevent and minimise security risks in different online situations
- f. Protect private information against exploitation
- g. Maintain a balanced use of technology to avoid computer addiction
- h. Verify the credibility of information and that information is communicated accurately and responsibly

¹ The MOE Cyberwellness Framework was launched in Oct 2007.

Primary 1 - 3

Learning Objectives

Pupils will

1. Gather and record information
2. Present information

ICT Focus

Pupils will

1. Perform basic ICT operations
2. Access digital resources
3. Create a short presentation with text and pictures

Skill Areas	Code	Skills
Basic Operations (K)	PK1	Navigate in a Graphical User Interface (GUI)
	PK2	Use application software and work with files
Learning With Searches (H) <i>Internet navigation and search</i>	PH1	Use digital resources from specified sources
Learning With Text (T) <i>Word processing</i>	PT1	Type short sentences or paragraphs
	PT2	Edit and format short sentences
Learning With Multimedia (M) <i>Production and manipulation of multimedia content</i>	PM1	Combine text with drawings or pictures in a presentation

Suggested Evidence

- Softcopies or print-outs of pupils' work

Primary 4 - 6

Learning Objectives

Pupils will

1. Gather and record information
2. Organise information
3. Communicate information and ideas
4. Recognise and address cyberwellness issues

ICT Focus

Pupils will

1. Use the Internet for email and searches
2. Create, edit and format text in word processors, spreadsheets and presentation tools
3. Produce a short presentation with available multimedia elements
4. Use ICT tools to collect data

Skill Areas	Code	Skills
Learning With Searches (H) <i>Internet navigation and search</i>	PH2	Use search engines and keywords
Learning With Spreadsheet (S) <i>Data management and processing</i>	PS1	Create, edit and format tables of data
	PS2	Use mathematical formulae
Learning With Text (T) <i>Word processing</i>	PT3	Type paragraphs of text
	PT4	Edit and format paragraphs of text
	PT5	Create tables and edit content
Learning with Multimedia (M) <i>Production and manipulation of multimedia content</i>	PM2	Create a multimedia presentation
Learning with Communication Tools (C) <i>Online communication</i>	PC1	Send a message
	PC2	Send an attachment
Learning With Data Collection Tools (D) <i>Data collection and transfer</i>	PD1	Record pictures, sound, video or data using ICT tools

Suggested Evidence:

- Softcopies or print-outs of pupils' work
- Digital portfolio (e.g. pupil folder or project website/blog)

Cyberwellness Areas	Code	Skills and Values
Ethical and Legal Use	C1	Handle Inappropriate Content
	C2	Prevent Cyber Abuse
	C3	Display Internet Etiquette
	C4	Respect Intellectual Property
Safe and Responsible Use	C5	Protect Private Information
	C6	Avoid Computer Addiction

Secondary 1 – 2

Learning Objectives

Pupils will

1. Gather and record information independently
2. Examine, organise and use information and digital resources
3. Present and communicate information and ideas
4. Recognise and address cyberwellness issues (skills and values from earlier key stage should be continuously reinforced)

ICT Focus

Pupils will

1. Use the Internet for communication and searches
2. Create, organise and lay out text in word processors, spreadsheets and presentation tools
3. Produce multimedia elements using a simple application software
4. Create links to access a variety of data sources
5. Set up ICT tools to collect and process data

Skill Areas	Code	Skills
Basic Operations (K)	SK1	Operate in an interactive media environment
Learning with Searches (H) <i>Internet navigation and search</i>	SH1	Use search engines and keywords independently
Learning with Spreadsheet (S) <i>Data management and processing</i>	SS1	Create, edit and format graphs or charts
	SS2	Use built-in functions to process data
Learning with Text (T) <i>Word processing</i>	ST1	Create pages of text
	ST2	Edit and format pages of text
Learning with Multimedia (M) <i>Production and manipulation of multimedia content</i>	SM1	Produce multimedia elements
	SM2	Create presentation with hyperlinks
Learning with Communication Tools (C) <i>Online communication</i>	SC1	Communicate online
Learning with Data Collection Tools (D) <i>Data collection and transfer</i>	SD1	Export data collected
Suggested Evidence:		
<ul style="list-style-type: none"> - Softcopies or print-outs of pupils' work - Digital portfolio (e.g. pupil folder or project website) - Online journal (e.g. blog, forum, wiki, audioblog, podcast) 		
Cyberwellness Areas	Code	Skills and Values
Ethical and Legal Use	C4	Respect Intellectual Property
Safe and Responsible Use	C5	Protect Private Information
	C6	Avoid Computer Addiction
	C7	Manage Security Risks
	C8	Verify Information Sources

Secondary 3 – 5 / Pre-University

Learning Objectives

Pupils will

1. Revise information-gathering strategies to retrieve and organise information from various sources
2. Evaluate information in terms of credibility and relevance for a specific purpose
3. Present and communicate information and ideas clearly
4. Address cyberwellness issues (skills and values from earlier key stages should be continuously reinforced)

ICT Focus

Pupils will be proficient in the following:

1. Locate, evaluate and synthesize reliable information from multiple Internet sources
2. Manipulate multimedia elements and create a range of media products
3. Use online and network means to communicate, collaborate and distribute media within and beyond the classroom
4. Employ ICT tools independently to collect and process different kinds of data and media

Skill Areas	Examples of Application
Learning with Searches (H) <i>Internet navigation and search</i>	Locate, select and use resources to enhance learning of curriculum topics (e.g. simulation to explore the effects of changing conditions such as a Tsunami)
	Use and analyse (e.g. compare and contrast) information from various sources to complete assignments and project work
Learning with Spreadsheet (S) <i>Data management and processing</i>	Process data and interpret results to draw inferences (e.g. number patterns and what-if analysis)
	Plan and design spreadsheets based on a scenario to solve a problem (e.g. which loan package to take up)
Learning with Text (T) <i>Word processing</i>	Use the word processor frequently with accuracy and efficiency to complete assignments
	Organise ideas for different purposes (e.g. publications such as newsletters, pamphlets and reports)
Learning with Multimedia (M) <i>Production and manipulation of multimedia content</i>	Use the presentation tool frequently to organise and present information and ideas
	Produce multimedia presentations using a variety of media elements to illustrate ideas to targeted audiences (e.g. digital story)
Learning with Communication Tools (C) <i>Online communication</i>	Use ICT tools frequently to exchange information and data collected with peers, teachers, experts, groups of people and organisations
	Communicate and collaborate in ways appropriate to the task and audience (e.g. use blogs or wikis for expressing personal or group views)
Learning with Data Collection Tools (D) <i>Data collection and transfer</i>	Make observations and measurements of several variables at the same time, or over time to help in scientific and geographical investigations
	Select and use appropriate ICT tools to measure, collect and process data to support an investigation

Suggested Evidence:

- Softcopies or print-outs of pupils' work
- Digital portfolio (e.g. pupil folder or project website)
- Online journal (e.g. blog, forum, wiki, audioblog, podcast)

Cyberwellness Areas	Code	Skills and Values
Ethical and Legal Use	C4	Respect Intellectual Property
Safe and Responsible Use	C8	Verify Information Sources