



Information and Communication Technology

Grade 8

(2021)

Essential Contents

Department of Information Technology
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Information & Communication Technology
Grade 8 (2021)
Essential Contents (Grade 7 & 8)

Competency	Competency Level	Content	Learning Outcomes	Duration/ Periods
1. Uses computers efficiently and effectively with operating system	1.1 Identifies Computer Ports	<ul style="list-style-type: none"> ● Ports connectivity (PS/2, USB, Micro USB, VGA, HDMI, Parallel, RJ45, Memory Card Reader) 	<ul style="list-style-type: none"> ● Connects peripheral devices to relevant ports 	01
2. Use of word-processing software in day today activities	2.1 Uses basic functions of word processing software in creating a document	<ul style="list-style-type: none"> ● Create, open,save and close a document ● Formatting of Text ● Inserting files/objects (text, picture, shapes, clip art, word art etc.) ● Inserting a table ● Spelling and grammar check ● Lists ● Practice Sinhala/Tamil keyboards 	<ul style="list-style-type: none"> ● Creates a formatted document using word processing software ● Demonstrates skills in the Sinhala/Tamil keyboards 	03
3. Uses Presentation software to create presentation	3.1 Uses basic functions of Presentation software in creating a presentation.	<ul style="list-style-type: none"> ● Create, open, save and close a Presentation ● Add Slide ● Inserting files/objects (text, picture, shapes, clip art, word art, chart etc.) ● Formatting of Text ● Slide Designs ● Move, duplicate, Hide and Delete Slides ● Slide transitions 	<ul style="list-style-type: none"> ● Creates presentation using Presentation software 	02

4. Uses flowchart to solve simple problems with sequence, selection, and develop programs (Using Scratch)	4.1 Analyses the problem and Identifies the control structures	<ul style="list-style-type: none"> ● Identification of input, process and output steps ● Use of flow charts. <ul style="list-style-type: none"> ○ Sequence ○ Selection (Concept of Selection) ○ Iteration (Concept of Iteration) 	<ul style="list-style-type: none"> ● Analyses the problems in simple day to day life ● Describes control structures 	05
	4.2 Develops simple programs using visual development environment	<ul style="list-style-type: none"> ● Introduction to Interactive Development Environment – Interface (IDE) to develop computer programs ● Developing simple programs(sequence type) using visual supports of programming language (using an Interface) 	<ul style="list-style-type: none"> ● Uses Scratch programming IDE ● Applies basic instructions sequentially to develop simple programs 	
	4.3 Describe the concept of variables in programs	<ul style="list-style-type: none"> ● Definition of variable ● Use of variables in programs 	<ul style="list-style-type: none"> ● Describes the use of variables in a program ● Writes programs with variables appropriately 	
5. Uses the services of the Internet and develops web pages	5.1 Uses resources available in the Internet (text, images, audios, videos etc.)	<ul style="list-style-type: none"> ● WWW, URL ● Download images, audio, video etc. ● Accessing earth maps ● Trusted and untrusted websites ● Authentic and reliable information ● Educational Websites 	<ul style="list-style-type: none"> ● Uses Internet for information gathering ● Identifies trusted and untrusted websites ● Identifies authentic and reliable information 	01
	5.2 Uses offline (Email) and online Communication	<ul style="list-style-type: none"> ● Web based free Email ● Creation of accounts. <ul style="list-style-type: none"> ○ Use of Email: Subject, To, Bcc, Cc, Attachments, Forward, ○ Inbox, Outbox. Draft, Trash, Spam, Reply 	<ul style="list-style-type: none"> ● Communicates via Email 	02
	5.3 Uses the Internet safely, securely and ethically	<ul style="list-style-type: none"> ● Protection against unauthorized access and malware <ul style="list-style-type: none"> ○ Hacking 	<ul style="list-style-type: none"> ● Uses the Internet safely ● Uses the Internet securely ● Uses the Internet ethically 	01

		<ul style="list-style-type: none"> ○ Virus attacks ○ Software piracy ● Protection in using the Internet against crime <ul style="list-style-type: none"> ○ Cyber bullying ○ Stealing others data ● Online safety precautions against unknown parties (Email, social media etc.) 		
	5.4 Develops web pages using HTML	<ul style="list-style-type: none"> ● Creation of a web page using text, images <ul style="list-style-type: none"> ○ Text formatting ○ Colors ○ Lists ● Creating links to the other pages & web sites. 	<ul style="list-style-type: none"> ● Designs a simple website ● Creates a simple website 	02
6. Uses a software for package for digital computing to implement programming logic	6.1 Uses a simple hardware device to implement physical computing	<ul style="list-style-type: none"> ● Components of physical computing device ● Controllable devices ● Turning on/off LEDs ● Design LED patterns with simple programs 	<ul style="list-style-type: none"> ● Writes a program to operate external circuits using two logic levels (yes/no, on/off) ● Implements programs on physical devices. Example: Turning On/Off the LEDs with passing values 	03
Total				20

Low Prioritized Contents of Grade 8

Competency	Competency Level	Content	Remarks
1. Investigates how instructions and data are represented in the computer	1.1. Converts decimal numbers to binary numbers and vice versa	<ul style="list-style-type: none"> ● Introduction to Number Systems <ul style="list-style-type: none"> ○ Decimal and Binary Number System ○ Conversion from Decimal to Binary ○ Conversion from Binary to Decimal 	Scheduled to complete in the first term
	1.2. Appreciates the working logic (binary concept) in computers	<ul style="list-style-type: none"> ● Method of data representation using 0 and 1 ● Binary data flow among the computer ● components 	Scheduled to complete in the first term
2. Uses computers efficiently and effectively with operating system	2.1. Uses Operating System for configuring and applying settings	<ul style="list-style-type: none"> ● Regional settings: Date, Time, Currency, Number format ● File properties ● File Search 	Scheduled to complete in the first term
	2.2. Explores basic troubleshooting of computers and maintenance procedures (hardware and software)	<ul style="list-style-type: none"> ● Troubleshooting of simple computer faults ● Hardware issues (keyboard, mouse, power cable, network cable, VGA cable) ● Sound output issues (speaker connectivity, check the volume) ● Troubleshooting and resolving of relevant computer software issues ● Corrupt software ● Blank desktop 	Scheduled to complete in the first term

4. Uses flowchart to solve simple problems with sequence, selection and develop programs (Using Scratch)	4.1. Analyzes the problem	● Identification of applications created for mobile and smart devices	Grade 9 Competency 3 and 4
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