



# **Information and Communication Technology**

## **Grade 6**

**(2021)**

### **Essential Contents**

Department of Information Technology  
Faculty of Science and Technology  
National Institute of Education  
Maharagama - Sri Lanka  
[www.nie.lk](http://www.nie.lk)

## Information & Communication Technology

### Grade 6 (2021)

#### Essential Contents

Competency	Competency Level	Content	Learning Outcome	Duration / Periods
1. Appreciates the importance of computers	1.1 Explains the functions of the computer and its characteristics	<ul style="list-style-type: none"><li>● Basic components of computer<ul style="list-style-type: none"><li>○ Input</li><li>○ Processing</li><li>○ Output</li><li>○ Storage</li></ul></li><li>● Computer vs. Human<ul style="list-style-type: none"><li>○ Speed and Efficiency</li><li>○ Accuracy</li><li>○ Reliability</li><li>○ Consistency</li><li>○ Capacity of storage</li><li>○ Cost</li><li>○ Intelligence</li></ul></li></ul>	<ul style="list-style-type: none"><li>● Identify the basic components of a computer</li><li>● Lists the functions and characteristics of a computer</li></ul>	02
	1.2 Identifies computer components	<ul style="list-style-type: none"><li>● Input devices</li><li>● Output devices</li><li>● Storage devices</li></ul>	<ul style="list-style-type: none"><li>● Lists various input devices</li><li>● Lists various output devices</li><li>● Lists various storage devices</li></ul>	02
	1.3 Describes the need for software	<ul style="list-style-type: none"><li>● Need for software</li><li>● Examples of software<ul style="list-style-type: none"><li>○ Games</li><li>○ Media player</li><li>○ Drawing software,....etc</li></ul></li></ul>	<ul style="list-style-type: none"><li>● Explains the need of software</li><li>● Lists various software</li></ul>	01

	1.4 Appreciates the use of a computer to carry out routine work	<ul style="list-style-type: none"> <li>● Identification of areas of application (educational software, library management system etc.) in the school and other fields</li> <li>● The Role of the computer in <ul style="list-style-type: none"> <li>○ Schools</li> <li>○ Banks</li> <li>○ Hospitals</li> <li>○ Factories</li> <li>○ Farms</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Describes potential application areas in education and other fields</li> </ul>	01
2. Appreciates the need for using computers safely	2.1 Uses the computer laboratory properly	<ul style="list-style-type: none"> <li>● Good practices to follow <ul style="list-style-type: none"> <li>○ Keeping the lab dust free</li> <li>○ Avoiding food and drinks in the lab</li> <li>○ Leaving the items used in the lab in the proper order</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Comprehends the good practices in the lab</li> <li>● Follows the good practices in the lab</li> </ul>	01
	2.2 Uses computers and peripherals safely	<ul style="list-style-type: none"> <li>● Correct posture to minimize health issues</li> <li>● Ethics of using the computer</li> <li>● Use of passwords to avoid unauthorized access</li> <li>● Management of e-waste (Safe disposal of computer hardware)</li> </ul>	<ul style="list-style-type: none"> <li>● Uses the computer ethically</li> <li>● Safely dispose obsolete computers/ peripherals</li> <li>● Understands and practices the safe use of computers</li> </ul>	01
3. Uses of operating systems	3.1 Handles files	<ul style="list-style-type: none"> <li>● Correct steps to Start the computer</li> <li>● File handling using a simple drawing software <ul style="list-style-type: none"> <li>○ Create</li> <li>○ Save</li> <li>○ Open</li> <li>○ Edit</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Follows the correct steps to Start/ Shutdown the computer</li> <li>● Creates and saves a file</li> <li>● Opens and edits a file</li> <li>● Practices to maximize/ minimize/ resize a window</li> </ul>	02

		<ul style="list-style-type: none"> <li>○ Close</li> <li>● Minimizing / Maximizing / Resizing of a window</li> <li>● Correct steps to Shut down the computer</li> </ul>		
4. Uses application software appropriately	4.1 Uses text editing and drawing software effectively	<ul style="list-style-type: none"> <li>● Use of drawing software to use the mouse properly</li> <li>● Use of typing software to develop keyboard skills</li> </ul>	<ul style="list-style-type: none"> <li>● Uses mouse and keyboard effectively</li> <li>● Types using correct finger movements</li> <li>● Draws pictures with mouse</li> </ul>	02
	4.2 Uses audio software and video software effectively	<ul style="list-style-type: none"> <li>● Use of audio software to create an audio clip</li> <li>● Use of video software to create a video clip</li> </ul>	<ul style="list-style-type: none"> <li>● Creates an audio file</li> <li>● Creates a video file</li> </ul>	02
5. Appreciates the concept of algorithms and develops simple programs	5.1 Relates practical problem solving process to an algorithm	<ul style="list-style-type: none"> <li>● Making of a composition according to a recipe (Ex. Making a cake)</li> </ul>	<ul style="list-style-type: none"> <li>● Identifies the process of problem solving as a series of steps</li> </ul>	01
	5.2 Draws flowcharts to explain a process	<ul style="list-style-type: none"> <li>● Introduction to flowchart symbols <ul style="list-style-type: none"> <li>○ Start/Stop</li> <li>○ Input/ Output</li> <li>○ Process</li> </ul> </li> <li>● Flowcharts to explain the simple sequential processes of day to day tasks</li> </ul>	<ul style="list-style-type: none"> <li>● Identifies flowchart symbols</li> <li>● Represents a process with a flowchart</li> </ul>	02
6. Appreciates the Internet for information gathering and	6.1 Identifies the Internet as a collection of information	<ul style="list-style-type: none"> <li>● Introduction to the Internet</li> <li>● Accessing educational websites to practice browsing</li> </ul>	<ul style="list-style-type: none"> <li>● Defines the Internet</li> <li>● Accesses the Internet</li> <li>● Obtains information through</li> </ul>	01

communication	resources in a shareable pool		educational websites	
	6.2 Uses search engines to obtain information	<ul style="list-style-type: none"> <li>● Introduction to search engines</li> <li>● Information searching on a specific topic using Search Engines</li> </ul>	<ul style="list-style-type: none"> <li>● Lists different Search Engines</li> <li>● Obtains information using Search Engines</li> </ul>	01
	6.3 Uses computers and data safely and securely	<ul style="list-style-type: none"> <li>● Application of access control mechanisms (Username, Passwords, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>● Follows safety and security procedures</li> <li>● Realizes the importance of guidance of trusted mentors</li> </ul>	01
<b>Total</b>				<b>20</b>

### Low Prioritized Contents of Grade 6

Competency	Competency Level	Content	Remarks
1. Appreciates the importance of computers	1.1. Explains the functions of the computer and its characteristics	<ul style="list-style-type: none"> <li>● Devices with embedded computers               <ul style="list-style-type: none"> <li>○ Mobile Phones</li> <li>○ Modern Televisions</li> <li>○ Washing Machines</li> <li>○ Automobiles</li> </ul> </li> </ul>	This section can be completed with Grade 8 competency 5
	1.2. Identifies computer components	<ul style="list-style-type: none"> <li>● CPU</li> <li>● Memory</li> <li>● Communication devices</li> </ul>	This section can be completed with Grade7 competency 1,competency 7 and Grade 9 competency1