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1.1.1

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1.2.1

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Computer Essentials

This quick reference is for understanding the main concepts of ICT and using the computer an<u>d managing files on Windows 7</u>

Quick Reference



1.2.2 Define the terms processor, Random Access Memory (RAM), storage. Understand their impact on performance when using computers and devices.

This module sets out essential concepts and skills relating to the use of devices, file creation and management, networks and data security.

- Understand key concepts relating to ICT, computers, devices and software.
- Start up and shut down a computer.
- Work effectively on the computer desktop using icons, windows.
- Adjust the main operating system settings and use built-in help features.
- Create a simple document and print an output.
- Know about the main concepts of file management and be able to efficiently
- Understand key storage concepts and use utility software to compress and
- Understand network concepts and connection options and be able to connect
- Understand the importance of protecting data and devices from malware and of
- Recognise considerations relating to green IT, accessibility and user health.

- Software and Licensing
- Define the term software and distinguish 1.3.1 between the main types of software like: operating systems, applications. Know that software can be installed locally or available

online. Software - Applications or programs that perform specific tasks, such as word processing or graphics editing

- Operating system Controls the computer, schedules tasks, manages storage, and handles communication with other devices
- Applications software Designed for specific tasks such as presentations or spreadsheets.
- Software can be installed on a specific computer or device, on a network or accessed
- via the cloud. Define the term operating system and identify some common operating systems for computers and devices.
 - Operating system Software that schedules tasks, manages storage and handles communication with other devices
- Examples include Windows, Linux, Mac OS X 1.3.3 Identify common examples of applications like:
 - Office productivity Examples include word processing and spreadsheets Communications - Examples include e-mail
 - and instant messaging Social networking - Examples include websites
 - that allows users to connect and exchange status updates and comments
 - Media Examples include news applications and social media applications
 - Design Examples include photo-editing and desktop publishing
 - Mobile applications Examples include online storage applications and e-mail applications

Define the term End-User License Agreement (EULA). Recognise that software must be licensed before use.

- EULA A legal agreement between the user of software and the software manufacturer
- Users should ensure all software used is fully licensed before use.
- 1.3.5 Outline the types of software licenses: Proprietary - Software that must be bought before use
 - Open source Free software that makes its source code available
 - Trial version Software that can be used for a restricted time only and users will have to purchase to use further
 - . Shareware Software that is distributed on a try-before-you-buy basis with limited functionality
 - Freeware Free copyrighted software

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1.4 Start Up, Shut Down

- Start a computer and log on securely using a 141 user name and password.
 - Make sure that both the computer and monitor are plugged into a power source. Turn on the computer and the monitor.
 - Enter a user name and password when requested.
 - Press the Return key.
- 1.4.2 Log off a computer using an appropriate
 - routine.
 - Close any open files and applications. Click the Start button.
 - Select the Shut Down arrow.
 - Click Log off.
- Shut down a computer using an appropriate 1.4.2 routine.
 - Close any open files and applications.
 - Click the Start button.
 - Click Shut Down
- 1.4.2 Restart a computer using an appropriate routine.
 - Close any open files and applications.

 - Click the Start button. Select the Shut Down arrow.
 - Click Restart.

2 **Desktop, Icons, Settings**

2.1 **Desktop and Icons**

- Outline the purpose of the desktop and the 2.1.1 task bar.
 - Desktop Displays icons for files, folders and applications
 - Task bar- Shows active applications, files and folders and other icons
- Identify common icons like those representing: 212

FILES	
FOLDERS	D
APPLICATIONS	Ø
PRINTERS	
DRIVES	2
SHORTCUTS/ALIASES	
RECYCLE BIN/WASTEBASKET/ TRASH	

- 213 Select and move icons.
 - On the desktop, click on an icon and drag and drop to a new location.
- Create a shortcut/alias. 2.1.4
 - Select location to move shortcut to Right-click and click Create shortcut.
- Rename a shortcut/alias. 2.1.4
 - Right-click on the shortcut icon.
 - Click Rename.
 - Enter new name.
- Move a shortcut/alias. 214
 - Right-click on the shortcut icon.
 - Click Cut.
 - Select location to move shortcut to.
 - Right-click and select Paste.
- 2.1.4 Delete a shortcut/alias.
 - Right-click on the shortcut icon.
 - Click Delete.
 - Click Yes to confirm deletion.

2.2 **Using Windows**

- Identify the different parts of a window: 221 Title bar 1.
 - 2. Menu Toolbar/Ribbon 3.
 - 4. Status bar
 - Scroll bar. 5.



- Open, collapse, expand, restore down, 2.2.2
 - maximise, resize, move, close a window. To open a window, select the file or folder, right-click and select Ope
 - To collapse a window, click the Minimise
 - button in the upper right corner of the window.
 - To expand a window, move the mouse to the edge of the Title bar and drag the window to increase the size.
 - To restore down a window, click the Restore Down button in the upper right corner of the window.
 - To maximise a window, click the Maximise button in the upper right corner of the window.
 - To resize a window, move the mouse over the Title bar and drag the window to size preferred.
 - To move a window, move the mouse over the Title bar and drag the window to a new location.
- To close a window, click the Close button in 2.2.3 Switch between open windows.

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- Move the mouse over the application icons on the Task Bar so any open windows are displayed.
- Click the required window icons found on the Task Bar.

2.3 **Tools and Settings**

- Use available help functions. 2.3.1
 - Click the Start button.
 - Click Help and Support.
 - Enter the query into the Search Help search
 - box.
 - Press the Return key.
- View the computer's basic system information: 2.3.2 operating system name and version number, installed RAM.
 - Click the Start button.
 - Click Control Panel.
 - Click System.
 - Change desktop configuration settings: date and time.
 - Click the time shown on the right side of the Task Bar
 - Click Change Date and time settings.
 - Click Change Date and time.
 - Enter a date and time.
 - Click Apply
- Change desktop configuration settings: volume 2.3.3
 - settings.

2.3.3

- Double-click the speaker button on the right side of the Task Bar.
- Adjust the volume as required.
- 2.3.3 Change desktop configuration settings: background.
 - Right-click on the desktop and click
 - Click a theme to change the desktop background.
 - Click App
- Change desktop configuration settings: 2.3.3 resolution.



I Panel + All Control Panel Items + Display + Screen Resolut

- Select the application to uninstall.
- Click Uninstall/Change. Click Yes.
- 2.3.7 Connect a device (USB flash drive, digital
- camera, media player) to a computer. Insert the flash drive (or cable for other device)
 - into the USB port on the computer. The computer will signal that a new device has
 - been detected. Save or view files and folders as needed.
- 2.3.7 Disconnect a device using an appropriate
 - routine.
 - Click on the USB device icon on the Task Bar. Select Eject USB Disk and remove the USB
- flash drive. Capture a full screen. 2.3.8
- Press the Print Screen key.
- Capture an active window. 238
 - Open a window on the desktop. .
 - Press the Alt key + Print Screen key.

3 Outputs

31 Working with Text

- Open a word processing application. 3.1.1
 - Click the Start button.
 - Select All Programs. Click Microsoft Word 2010.
- 3.1.1 Close a word processing application.
 - Click the File button.
 - Click Exit.
- Open files. 3.1.1

3.1.1

- Click the File button.
- Click Open
- Select the document to open and click Open. Close files.
- Click the File button.
- Click Close.
- 3.1.2 Enter text into a document.
 - Click into the open word processing document.
 - Enter the text.
- Copy text within a document, between open 3.1.3 documents.
 - Select the text to copy.
 - On the Home tab, in the Clipboard group, click the Copy button.
 - Click in a new location within the document or within another open document.
 - On the Home tab in the Clipboard group, click the Paste button.
- 3.1.3 Move text within a document, between open documents.
 - Select the text to move.
 - On the Home tab, in the Clipboard group, click the Cut button.
 - Click in a new location within the document or within another open document.
 - On the Home tab in the Clipboard group, click the Paste button.
- 3.1.3 Paste a screen capture into a document.
 - After taking the screen capture, click in a new location within the document.
 - On the Home tab in the Clipboard group, click the Paste button.
- 3.1.4 Save and name a document.
 - Click the File button.
 - Click Save.
 - Create a file name and select the location.
- Click Save. 3.2 Printing
- Install a printer. 3.2.1
 - Click the Start button.
 - Click Devices and Printers.
 - Click Add a printer.
 - Follow the wizard instructions.
- Uninstall a printer. 3.2.1
 - Click the Start button.
 - Click Devices and Printers. Select the printer.
 - Right-click and select Remove device.
 - Click Yes to confirm removal.
- 3.2.1 Print a test page.
 - Right-click a printer.
 - Click Printer properties.
 - On the General tab, click Print Test Page. Click OK
- 3.2.2 Set the default printer from an installed printer list.
 - Click the Start button.
 - Click Devices and Printers.

- Select a printer to set as default printer.
- Right-click and click Set as Default Printer. Print a document from a word processing 3.2.3

application.

- In an open document, click the File button. Select Print.
- Click Print.
- 3.2.4 View, pause, restart, cancel a print job.
 - To view a print job, double-click on the Printer icon on the Task Bar.
 - To pause a print job, right-click the print job and select Paus
 - To restart a print job, right-click the print job and select Restar
 - To delete a print job, right-click the print job and select Cancel.

4 File Management

Introducing Files and Folders 4.1

- 4.1.1 Understand how an operating system organises drives, folders, files in a hierarchical structure.
 - Windows Explorer displays the hierarchical structure of files, folders, and drives on your computer.
- Navigate between drives, folders, sub-folders, 4.1.1 files.

Computer + File Edit View Tools Help Organize 🔻 Properties System p erties Uninstall or change a program My Music Hard Disk Drives (1) My Pictures OS (C:) 191 GB free of 232 GB B Saved Games Searches Devices with Removable Storage (1) Computer Main Computer Main Computer DVD RW Drive (D:) DVD RW Drive (D:)

- . Click the Start button.
- Click Computer
- Double-click on the drive where the folder or file is located.
- Locate the folder and file name on the drive
- 4.1.2 Display file, folder properties like: name, size,
 - location.
 - Right-click on the file or folder.
 - Select Properties.
- Click OK. Change view to display files and folders like: 4.1.3 tiles, icons, list, details.
 - In an open window, click on the Change your view button.
 - Click on a preferred option to view files or folders.
- 4.1.4 Identify common file types like:

Common File Type	File Extension	File Icon
Word Processing	.docx	
Spreadsheet	.xlsx	
Presentation	.pptx	
Portable Document Format	.pdf	POF
Image	.gif, .jpg, .bmp	
Audio	.mp3	мрз
Video	.avi	
Compressed	.zip	-
Executable	.exe	

4.1.5 **Open a file, folder, drive.**

- Select the file, folder or drive to open. Right-click and click Open.
- 4.1.6 Recognise good practice in folder, file naming: Use meaningful names for folders and files to help with searching and organisation.
- Create a folder. 4.1.7

Click Folder.

Click Rename.

Enter a new name.

Press the Return key.

4.1.8 Rename a file, folder.

Task Bar.

of a file name.

Click Search

if necessary

.txt.

letter b.

Click Search.

Click Search.

Enter text.

Task Bar.

Properties

4.2

4.2.1

4.2.1

421

name.

size.

type.

Items checkbox.

Click OK.
 Organising Files and Folders

Select individual files, folders.

Click on a file or folder.

Select adjacent files, folders.

Release the Shift key.

or folder to select.

Click the View menu.

Select Sort by.

order.

order.

order.

Select non-adjacent files, folders.

4.2.2 Sort files in ascending, descending order by

4.2.2 Sort files in ascending, descending order by

4.2.2 Sort files in ascending, descending order by

Task Bar

name.

Navigate to where the folder will be created. Right-click and click New.

4.1.9 Search for files by properties: all or part of file

4.1.9 Search for files by properties: using wildcards

boxes to perform search.

4.1.9 Search for files by properties: by content.

4.1.9 Search for files by properties: by date modified.

Click in the Search Libraries field.

Double-click the Windows Explorer icon on the

Select date required from displayed calendar.

If the Recent Items button is not already

In the Start Menu tab, click Customize

installed, right-click the Task Bar and click

In the dialog displayed, check the Recent

Click the first file or folder, hold down the $\ensuremath{\mathsf{Shift}}$

Hold down the Ctrl key, and then click each file

Click Name to sort files by name in ascending

Click Descending to sort in descending order.

Click Size to sort files by size in ascending

Click Descending to sort in descending order.

Click Type to sort files by name in ascending

Click Descending to sort in descending order.

key, and then click the last file or folder.

Click the Start button.

Click Date modified.

4.1.10 View list of recently used files.

Click the Start button.

Select Recent Items.

Enter a folder name and press the Return key.

Double-click the Windows Explorer icon on the

In the search field enter a full file name or part

Double-click the Windows Explorer icon on the

In the search field use wildcards in the criteria

Enter *.txt to find all files with the extension

Enter b*.* to find all files that begin with the

Right-click on the file or folder to re-name.

4.2.2 Sort files in ascending, descending order by date modified.

- Double-click on the folder containing the files to sort.
- Click the View menu.
- . Select Sort by.
- Click Date Modified to sort files by date . modified in ascending order.
- Click the View menu.
- . Select Sort by.

Click Descending to sort in descending order. Copy files, folders between folders, drives. 4.2.3

- Right-click on the file or folder to copy.
- Click Copy.
- Click on the new location.
- Right-click and click Paste
- 4.2.3 Move files, folders between folders, drives. Right-click on the file or folder to move.
 - Click Cut.
 - Click on the new location. Right-click and click Paste.
- 424 Delete files, folders to the recycle bin/ wastebasket/trash.
 - Right-click on the file or folder to delete.
 - Click Delete.
 - Click Yes to confirm deletion.
- 4.2.4 Restore files, folders to original location.
 - Double-click the Recycle Bin icon.
 - Select the items to restore.
 - On the Recycle Bin Tasks pane, click Restore the selected items.
- 4.2.5 Empty the recycle bin/wastebasket/trash. Open the Recycle Bin.
 - On the Recycle Bin Tasks pane, click Empty Recycle Bin.

4.3 Storage and Compression

Identify the main types of storage media like: 4.3.1

Storage Media	Description
Internal hard disk	A non-volatile, random access storage device for digital data
External hard disk	A hard disk located outside the computer
Network drive	A drive shared by multiple users or devices
CD	An optical disc used to store music
DVD	An optical disc used to store video
Blu-ray Disc	A high definition optical disc used to store media with up to five times greater storage than DVDs
USB flash drive	A portable digital storage device
Memory card	A digital storage device used in cameras and other devices
Online file storage	A file storage service available over the Internet

4.3.2 Identify file size, folder size, storage capacity measurements like:

Unit Bit	Size	Comparable To
Kilobyte (KB)	1,024 Bytes	½ page of plain text
Megabyte (MB)	1,024 KB	700 pages of plain text or one picture/graphic
Gigabyte (GB)	1,024 MB	A set of encyclopaedias
Terabyte (TB)	1,024 GB	A bookstore full of books

View available space on a storage device. 433

- Select the drive or device.
- Right-click and select Properties. Click OK
- Understand the purpose of file, folder com-4.3.4 pression.
 - Compressing files decreases a file's size and

reduces the amount of space used for storage. 4.3.5 Compress files, folders.

- Select files.
- Right-click on files.
- Select Send To.
- Select Compressed (zipped) Folder. Extract compressed files, folders to a location 4.3.6
 - on a drive.
 - Right-click on the compressed file icon. Select Extract All.

Networks

Network Concepts 5.1

5

Define the term network. 5.1.1

- Network- More than one computer or device connected together to share data, applications or peripherals
- Outline the purpose of a network: 5.1.1
- Share, access data and devices securely 5.1.2 Define the term Internet. Identify some of its main uses like: World Wide Web (WWW), VoIP,
 - e-mail, IM. Internet - A global network connecting millions of computers worldwide
 - Main uses To provide access to information via the World Wide Web, to allow conversations over the internet (VoIP), to allow digital message exchange via email and to allow real-time text messaging via instant messaging
- 5.1.3 Define the terms intranet, virtual private network (VPN) and identify their main uses.
 - Intranet A private Internet used internally within an organisation to store internal documents, training material or business specific applications
 - VPN A network used to connect remote users securely to a business network to share data and communicate.
- Understand what transfer rate means. Un-5.1.4 derstand how it is measured: bits per second (bps), kilobits per second (kbps), megabits per second (mbps), gigabits per second (gbps).
 - Transfer rate The rate at which information is transferred to or from a disk drive
 - Measured in bits per second (bps), kilobits per second (kbps), megabits per second (mbps), gigabits per second (gbps).
- 5.1.5 Understand the concepts of downloading from, uploading to a network.
 - Downloading To copy a file or image from a web page
 - Uploading To copy a file or image from a computer to a web page

5.2 **Network Acc**

- Identify the different options for connecting to 521 the Internet like:
 - Phone line Mobile technology
 - Cable
 - Wi-fi
 - Wi-max
 - Satellite
- 5.2.2 Define the term Internet Service Provider (ISP). Internet Service Provider (ISP) - An organisation that provides access to the Internet
- Identify important considerations when 5.2.2 selecting an Internet subscription option like:

 - Upload speed Download speed
 - Download quota
 - Cost
- Recognise the status of a wireless network: 5.2.3 Protected/secure - The network is protected to
 - prevent unauthorised access. Open - The network is accessible to all
- Connect to a wireless network. 5.2.4
 - Double-click on the wireless connection icon on the Task Bar.
 - Select desired network and connect, using a password if required.

6 **Security and Well-Being**

Protecting Data on Computers and Devices Recognise good password policies like: 6.1.1

- Create with adequate length
- Create with adequate character mix

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- Do not share
- Change regularly

6.1.2 Define the term firewall and outline its purpose. Firewall - A security system designed to protect a network against external threats

6.1.3 Understand the purpose of regularly backing

- up data to a remote location. Important to have an off-site backup copy of files in case of unforeseen network, hardware or software problems, so that a copy of the data is available if the original data were to become unusable
- Recognise the importance of regularly 6.1.4 updating software like: anti-virus, application, operating system software.
 - Update anti-virus regularly to detect new viruses
 - Update application and operating system software regularly to fix known problems and security risks

6.2 Malware

- 6.2.1 Define the term malware. Identify different types of malware like; virus, worm, Trojan, spyware.
 - Malware Malicious software designed to install itself on a computer without the owner's consent
 - Virus Intrusive programs that infect computer files and may cause damage
 - Worm Self-replicating malware that uses a computer network to send copies of itself to other computers
 - Trojan Destructive program that masquerades as an application.
 - Spyware Malware that collects information

on user browser habits without their consent 6.2.2 Be aware how malware can infect a computer

6.2.3 Use anti-virus software to scan a computer. Open the virus scanning application.

or device.

6.3

6.3.1

of file to scan.

Health and Green IT

positioned.

practices:

recycled.

accessibility like:

6.3.4

Tvpe

Voice

recognition

software

Screen

reader

Screen

magnifier

On-screen

keyboard

High

contrast

Perform the scan.

Take regular breaks

Viruses can be transmitted via the installation of a program from an insecure source on the Internet, a CD- ROM, an online bulletin board, or e-mail attachments.

Enter the specific drive(s), folder(s) and name

Recognise ways to help ensure a user's well-

being while using a computer or device like:

Ensure appropriate lighting and posture

seat will minimise bad posture.

Turning off - When not in use

fied number of minutes not used

activated after pre-set timings

6.3.3 Recognise that computers, devices, batteries,

printer cartridges and paper should be

Description

keyboard

for users

impaired vision

6.3.2 Recognise computer and device energy saving

Lighting should be bright enough and correctly

Correct positioning of the computer, desk and

Adjusting automatic shut down - After a speci-

Adjusting backlight - This can be decreased

Adjusting sleep mode settings - This can be

Identify some options available for enhancing

Translates voice commands and

is used in place of a mouse and

Reads aloud information from a

computer display, for users with

Displays enlarged screen content

physical keyboard or inputting data

Makes the screen easier to view

Provides an alternative to a