WEEK 1

Date:	**Period:**	**Subject:** Computing	
Duration: 50 mins.		**Strand:** Introduction To Computing	
Class: B7	**Class Size:**	**Sub Strand:** Components of Computer	
Content Standard: B7.1.1.1. Examine the parts of a computer	**Indicator:** B7.1.1.1.1Discuss the fourth-generation computers		**Lesson:** 1 of 6
Performance Indicator: Learners can discuss features of fourth generation computers		**Core Competencies:** CI, CC, CL, CI 6.1, CC 7.4	
References : Computing Curriculum Pg. 3			
Keywords : microchip, generation, circuit			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Use questions and answers, find out what learners already know about the fourth generation computers. Share with learners the performance indicators.	Set of computer, Video /pictures, wall chart
PHASE 2: **NEW LEARNING**	Let learners discuss features of fourth generation computers *The computers of fourth generation used very large scale integrated (VLSI) circuits. This made computers more powerful, compact, reliable and affordable. As a result, it gave rise to personal computers (PC) revolution. E.g. desktop computers, laptop, notebook, etc.* Guide learners to Identify a microchip 	

	Engage learners to explore the architecture of a processor. **<u>Assessment</u>** 1. State any two features of fourth generation computers 2. What is the main function of the microchip in computers 3. Processors are also known as	
PHASE 3: **REFLECTOIN**	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Ask learners how the lesson will benefit them in their daily lives.	

Date:	**Period:**	**Subject:** Computing
Duration: 50 mins.		**Strand:** Introduction To Computing
Class: B7	**Class Size:**	**Sub Strand:** Components of Computer

Content Standard: B7.1.1.1. Examine the parts of a computer	**Indicator:** B7.1.1.1.2 Demonstrate understanding in the use of input devices	**Lesson:** 2 of 6
Performance Indicator: Learners can identify input devices and state its uses	**Core Competencies:** CI 6.1, CC 7.4	
References : Computing Curriculum Pg. 3		
Keywords : wireless, touchscreen, barcode		

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Use questions and answers, find out what learners already know about input devices. Share with learners the performance indicators.	Set of computer, Video /pictures, wall chart
PHASE 2: **NEW LEARNING**	Engage learners to watch video or picture of input devices e.g. wireless keyboard, mouse and touchscreen in class Demonstrate to learners the use of input devices in a computer laboratory/classroom. Have learners to distinguish manual (e.g. keyboard, etc.) and automatic (e.g. barcode reader etc.) input devices. Let learners explore the advantages and disadvantages of input devices Learners to explore areas where different types of input devices are used. Assessment	

	1. what is an input device? 2. mention the least input devices of a computer 3. draw any 2 input device.	
PHASE 3: **REFLECTION**	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Ask learners how the lesson will benefit them in their daily lives.	

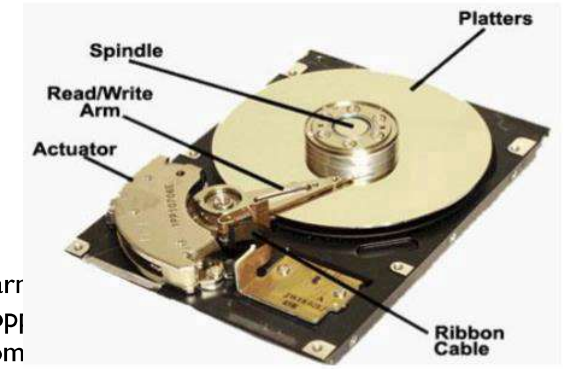
WEEK 2

Strand : Introduction to computing	**Class** : B7
Sub Strand: Components of Computer	**Duration** :
Content Standard: B7.1.1.1. Examine the parts of a computer	**Date** :
Indicators: B7.1.1.1.3. Examine the uses of the output devices:	**Day** :
Key words: speakers, projector, headphones	
Resources: Set of computer, Video /pictures, wall chart	

Activities For Learning & Assessment	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Using questions and answers, find out what learners already know about output devices. Share with learners the performance indicators. ***Main (35 mins)*** Engage learners to watch video or pictures of output devices in use.  L : of the o	Computing Curriculum Pg. 3	Learning how to identify and use output devices

Guide learners to demonstrate the use of output devices in a computer laboratory or classroom. Let learners explore the advantages and disadvantages of output devices. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Ask learners in turns to demonstrate the use of output devices.		
Homework/Project Work/Community Engagement Suggestions		
• What is an output device? • Mention any five output device you know. • State the functions of the output devices stated above		
Cross-Curriculum Links/Cross-Cutting Issues		
Potential Misconceptions/Student Learning Difficulties		
Learners inability to distinguish between input and output devices The facilitator can arrange to use the nearby school's computer lab		

Strand : Introduction to computing	**Class** : B7
Sub Strand: Components of Computer	**Duration** :
Content Standard: B7.1.1.1. Examine the parts of a computer	**Date** :
Indicators: B7.1.1.1.4 Examine full-sized external hard drives, hard drive speed, disk caching, Storage portable hard drives, Optical Discs and Drives	**Day** :
Key words: magnetic storage devices, portable hard drives, Optical Discs and Drives	
Resources: Set of computer, Video /pictures, wall chart	

Activities For Learning & Assessment	**Learners Resource Page Ref.**	**Progressi on**
Starter (5 mins) Recap with learners to find out what they already know about storage devices. Share with learners the performance indicators. ***Main (35 mins)*** Guide learners to Identify magnetic storage devices, portable hard drives/Optical Discs and Drives or pictures of these items to class. Learners to discuss the features of hard drives/Optical Disc storage media.  Let learr orage devices. 1. a flopp ta 2. a com 3 of data.	Computing Curriculum Pg. 3	Learning how to identify and use storage devices

Explore the different write speeds of these storage devices. *1. SD cards will read and write at speeds of 12.5MB/s* *2. a typical 7200 RPM HDD will deliver a read/write speed of 80-160MB/s* *3. the write speed of 2.0 USB can be as slow as 4MB per second and as fast as 8MB/s.* Explore the differences in the various Hard Disk Drives (HDD). ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Ask learners how the lesson will benefit them in their daily lives.		
Homework/Project Work/Community Engagement Suggestions		
• What is a storage device? • Identify the primary storage devices of a computer. • Identify any four secondary storage devices of the computer		
Cross-Curriculum Links/Cross-Cutting Issues		
Potential Misconceptions/Student Learning Difficulties		
The facilitator can arrange to use the nearby school's computer lab		

WEEK 3

Strand : Introduction to computing	**Class** : B7
Sub Strand: Computer Systems	**Duration** :
Content Standard: B7.1.1.2. Demonstrate the use of the features of the Windows Desktop	**Date** :
Indicators: B7.1.1.2.1 Discover the latest Windows Operating System (Start screen, Use of tiles, Taskbar buttons, Preview thumbnails), temporal peeking into a window on a taskbar	**Day** :
Resources: Set of computer, Video /pictures, wall chart	

Activities For Learning & Assessment	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Recap with learners to find out what they already know about the computers' desktop. Call up volunteers to mention some features of the computers' desktop Share the performance indicators with learners. ***Main (35 mins)*** Brainstorm learners to describe the computers desktop. Turn on a computer and ask learners to observe the computers desktop. Ask learners to identify some of the things they see on the screen. Learners to identify things they have not seen before on a computers screen. Guide learners to identify the features of the desktop. • *Taskbar* • *Start button* • *Icons*	Computing Curriculum Pg. 4	Exploring the features of the desktop

• *Wallpaper* • *Mouse* pointer  Assist learners to navigate through the features on the desktop. Guide learners to demonstrate how to preview thumbnails. *A thumbnail is a compressed preview image of the original that is used as a placeholder.* Let learners explore the features of the taskbar. Demonstrate how to preview windows on the taskbar. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		

In groups, let learners navigate through the features of the desktop.		
Homework/Project Work/Community Engagement Suggestions		
• What is a computers' desktop • Identify the features of the computer's desktop • Explain the following a) Icons b) wallpaper c) taskbar		
Cross-Curriculum Links/Cross-Cutting Issues		
Potential Misconceptions/Student Learning Difficulties		
The facilitator can arrange to use the nearby school's computer lab		

Strand : Introduction to computing	**Class** : B7
Sub Strand: Computer Systems	**Duration** :
Content Standard: B7.1.1.2. Demonstrate the use of the features of the Windows Desktop	**Date** :
Indicators: B7.1.1.2.2 Practice file management techniques	**Day** :
Key words: files, folder, extension	
Resources: Set of computer, Video /pictures, wall chart	

Activities For Learning & Assessment	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Using questions and answers, find out what learners already know about file and folders. Share with learners the performance indicators. ***Main (35 mins)*** Guide learners to explore different account levels for users of computer systems. *A user account is a location on a network server used to store a computer username, password, and other information.* *The account users may be a regular user or guest user.* Have learners to explore different permission levels that are applied to files and folders. *Files and folder permissions control what user is permitted to perform which actions on a file or folder.* *Files and directories can have three types of permissions: read, write and execute.* Lead learners to demonstrate file management techniques by following the naming conventions and organizing files in folders and subfolders. File management includes; • Renaming - (giving a desired name to a file of folder)	Computing Curriculum Pg. 4	Practicing file management techniques

• Moving – (copy and paste, cut and paste methods) • Deleting – (moving unused files and folder into the Recycle Bin) Explore the types and importance of file extensions. *A file extension is a string of characters attached to a filename, usually preceded by a full stop and indicating the format of the file.* Examples are DOC and DOCX, HTML and HTM, ODT, PDF, XLS and XLSX, ODS, PPT, TXT, MP3, etc. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. In groups, learners create folders and files.		
Homework/Project Work/Community Engagement Suggestions		
• What is a file? • What is a folder? • State the steps in creating a folder. • Mention any three file extensions you know.		
Cross-Curriculum Links/Cross-Cutting Issues		
Potential Misconceptions/Student Learning Difficulties		
The facilitator can arrange to use the nearby school's computer lab		

WEEK 4

Strand : Introduction to computing	**Class** :
Sub Strand: Technology in the community	**Duration** :
Content Standard: B7.1.2.1. Demonstrate the use of Technology in the community	**Date** :

Indicators: B7.1.2.1.1. Describe and give examples of at least five technology tools for learning in each subject	**Day** :
Key words: YouTube, Encarta, Microsoft office, calculators	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Have learners watch a video on current issues in Ghana. Example: Discussion on E-levy Assessment? 1. what helped us to watch the video? 2. what part of the video did you like best? Share the performance indicators and introduce the lesson. ***Main (35 mins)*** Brainstorm the meaning of technology tools. *Technology tools refers to software or gadgets that can be used to develop or support learning or service*. Example: YouTube, Encarta, Microsoft office, calculators, radio, television, etc. Explore various technology tools that can be used for learning (Educational Software) by guiding learners to surf the internet to discover more about such tools. Example: <u>In Mathematics</u>: - Spreadsheet and calculator for calculations - Television for watching Brilliant Science and Math quiz, PSI on Math. <u>In English</u> Word Processor – vocabulary, spelling, synonyms and antonyms Radio for listening to Everyday English	Internet connection, laptop/mobile phone, applications (Scratch), light bot, spreadsheet (MS Excel or Open office Calc), presentation (MS PowerPoint or Open office Impress), Virtual Museum (second canvas).	Computing Curriculum Pg. 5	Understanding what technology tools are, and their uses. Identifying and exploring some technology tools e.g. light bot, scratch

In Science: - Television for watching Brilliant Science and Math quiz Other Subjects Encarta Program – for searching for information on various topics Internet – is used to search for information on various topics. Guide learners to brainstorm some technology tools for learning ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Ask learners how the lesson will benefit them in their daily lives.			
Homework/Project Work/Community Engagement Suggestions			
Task learners to surf the internet or newspaper articles to identify other technology tools not mentioned.			
Cross-Curriculum Links/Cross-Cutting Issues			
Potential Misconceptions/Student Learning Difficulties			
• Learners may have a problem browsing the internet in areas with weak network reception. • Learners experiencing challenges with various websites may need assistance when browsing the internet and using the technology tools			

Strand : Introduction to computing	**Class** :
Sub Strand: Technology in the community	**Duration** :
Content Standard: B7.1.2.1. Demonstrate the use of Technology in the community	**Date** :
Indicators: Demonstrate the use of at least three technology tools identified in B7.1.2.1.1	**Day** :
Key words:	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Recap with learners to review their understanding in the previous lesson. Share performance indicator with learners. ***Main (35 mins)*** In turns, learners mention at least three examples of technology tools. Show pictures or video as to how the tools are used.  Learners discuss the uses of the technology tools and relate to them.	Manila card, flipchart	Computing Curriculum Pg. 5	Identifying any three (3) technology tools that aid learning. Understanding the uses of the technology tools mentioned

Engage learners to demonstrate the use of a technology tool in groups and present to the whole class how that tool works. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Ask learners how the lesson will benefit them in their daily lives.			
Homework/Project Work/Community Engagement Suggestions			
Learners should look for additional technology tools and their uses			
Cross-Curriculum Links/Cross-Cutting Issues			
None			
Potential Misconceptions/Student Learning Difficulties			
• Learners may have a problem browsing the internet in areas with weak network reception. • Learners experiencing challenges with various websites may need assistance when browsing the internet and using the technology tools			

WEEK 5

Strand : Introduction to computing	**Class** : B7		
Sub Strand: Technology in the community	**Duration** :		
Content Standard: B7.1.2.1. Demonstrate the use of Technology in the community	**Date** :		
Indicators: B7.1.2.1.3. Discuss the benefits of using technology tools in learning	**Day** :		
Key words:			
Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins)	Manila card, flipchart, surfing the internet for solutions		Identifying any three (3) benefits of

Using questions and answers, review learners understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Revise with learners on what technology tools are. Guide learners to discuss in pairs the benefits of using technology tools in learning (e.g. using spreadsheet to draw graphs) Example: *1. It makes teaching easy and interesting.* *2.I CT facilitates sharing of resources, expertise and advice.* *3.There is greater flexibility in carrying out their work as teachers.* *4.They gain ICT literacy skills, confidence and are enthusiastic about their work.* *5.Easier planning and preparation of lessons and designing materials* *6.Students easily learn at their own pace.* *7.Students who use ICT in school are more motivated to learn.* *8.It encourages the student to be independent and active in his/her learning and be self-responsible.* *9.Teaching is more focused and tailored to students' strengths and weaknesses..* *10.Gains in understanding and analytical skills, including improvements in reading comprehension.* Let learners discuss the negative effects, if any of technology tools in learning. Guide learners to identify the limitations of technology tools in teaching and learning. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.			technology tools that aid learning. Describing the benefits of technology tools that aid learning

Ask learners how the lesson will benefit them in their daily lives.			
Homework/Project Work/Community Engagement Suggestions			
What are technology tools State three benefits of technology tools in learning			
Cross-Curriculum Links/Cross-Cutting Issues			
None			
Potential Misconceptions/Student Learning Difficulties			
• Learners may have a problem browsing the internet in areas with weak network reception. • Learners experiencing challenges with various websites may need assistance when browsing the internet and using the technology tools. • Learners may not appreciate that the internet is also a technology tool.			

Strand : Introduction to computing	**Class** : B7
Sub Strand: Technology in the community	**Duration** :
Content Standard: B7.1.2.1. Demonstrate the use of Technology in the community	**Date** :
Indicators: B7.1.2.1.4. Examine the negative impact of computers and computer use on the environment	**Day** :
Key words:	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Recap with learners to find out what they already know about green computing. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Brainstorm learners to explain what green computing is. *Green computing is the sustainable approach in the design, manufacture, use, and disposal of IT resources.* Let learners observe people who use and work with computers in the community. Learners to visit websites or watch videos/pictures of how computers, including other electronic components, are disposed of.    Let learners discuss the impact of computers and computer use on the environment.	Manila card, flipchart, surfing the internet for solutions		Identifying any three (3) benefits of technology tools that aid learning. Describing the benefits of technology tools that aid learning

Example: *computers heavy metals, such as lead and toxic chemicals that pollute the soil and contaminate groundwater.* Engage learners to discuss the benefits of practicing green computing. Example: *it reduces the energy consumption which results into low carbon dioxide emission.* *It saves that will be spent in extra usage of energy and resources.* ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Ask learners how the lesson will benefit them in their daily lives.			

Homework/Project Work/Community Engagement Suggestions

- What is green computing?
- Identify three effects of computer usage on the environment
- Write three benefits of green computing.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

- Learners may have a problem browsing the internet in areas with weak network reception.
- Learners experiencing challenges with various websites may need assistance when browsing the internet and using the technology tools.
- Learners may not appreciate that the internet is also a technology tool.

WEEK 6

Strand : Introduction to computing	**Class** : B7
Sub Strand: Technology in the community	**Duration** : 50 mins
Content Standard: B7.1.2.1. Demonstrate the use of Technology in the community.	**Date** :
Indicators: B7.1.2.1.5. Propose environmentally responsible practices that can be used to reduce the negative impact of computers and computer use on the environment	**Day** :
Key words:6	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Recap with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Bring pictures of energy-efficient gadgets or devices to class e.g. energy saving light bulbs, energy-efficient cooking stoves, toilet water saver, solar chargers, energy saving shower heads etc. to class. Guide learners to discuss in groups and present to the whole class examples of energy-efficient devices and techniques. Revise with learners on the negative impact of computers and computer use on the environment. Example: Negative effects – resource depletion ,pollution, privacy and security etc Guide learners to discuss how the negative effects identified can be reduced. Example: avoid wasting electricity, avoid wasting paper, dispose of old equipment responsibly	Manila card, flipchart, surfing the internet for solutions		Proposing environmentally responsible practices that can be used to reduce the negative impact of computers and computer use on the environment

Guide learners to evaluate environmentally responsible practices. Put learners in groups to propose measures to effectively manage e-waste in a particular environment (e.g. Agbogbloshie).  ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.			
Homework/Project Work/Community Engagement Suggestions			
• Identify any two negative effect of computers on the environment. • State two ways of reducing the negative effects identified.			
Cross-Curriculum Links/Cross-Cutting Issues			
Potential Misconceptions/Student Learning Difficulties			
• Learners may have a problem browsing the internet in areas with weak network reception. • Learners experiencing challenges with various websites may need assistance when browsing the internet and using the technology tools. • Learners may not appreciate that the internet is also a technology tool.			

Strand : Introduction to computing	**Class** : B7
Sub Strand: Technology in the community	**Duration** : 50 mins
Content Standard: B7.1.2.1. Demonstrate the use of Technology in the community.	**Date** :
Indicators: B7.1.2.1.6. Create a component from disposed computer parts.	**Day** :
Key words:6	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Recap with learners to find out what they already know about computer recycling. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Guide learners to explain the meaning of computer recycling. *Computer recycling is the disassembly and separation of components and raw materials of waste electronics*. Learners to discuss the importance of computer recycling. Task learners to collect and bring disposed computer/electronic parts from the community to school. Lead learners to create a component from the disposed computer parts. Have learners watch a video/picture depicting the recycling of computer parts.	Manila card, flipchart, surfing the internet for solutions		Demonstrating the use of Technology in the community. Creating a component from disposed computer parts.

Reflection (10 mins) Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Ask learners how the lesson will benefit them in their daily lives.			
Homework/Project Work/Community Engagement Suggestions			
Learners to create a component from disposed computer parts.			
Cross-Curriculum Links/Cross-Cutting Issues			
Potential Misconceptions/Student Learning Difficulties			
• Learners may have a problem browsing the internet in areas with weak network reception. • Learners experiencing challenges with various websites may need assistance when browsing the internet and using the technology tools. • Learners may not appreciate that the internet is also a technology tool.			

WEEK 7

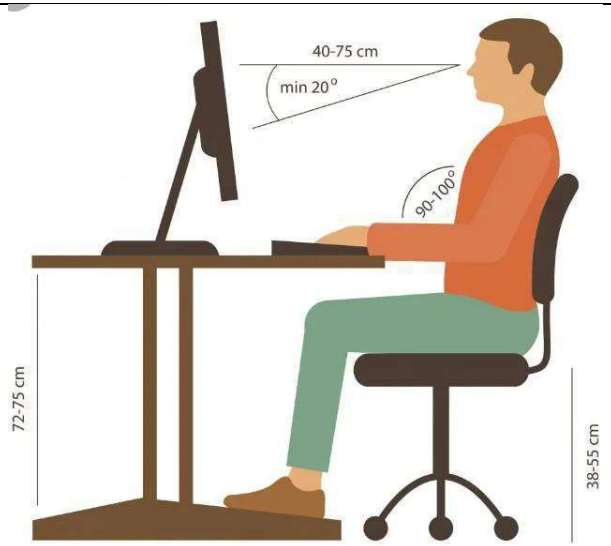
Strand : Introduction to computing	**Class** : B7
Sub Strand: Health and Safety in using ICT tools	**Duration** : 50mins
Content Standard: B7.1.3.1. Demonstrate how to apply Health and Safety measures in using ICT Tools	**Date** :
Indicators: B7.1.3.1.1 Describe health measures and current regulatory requirements and potential computing-related disorders	**Day** :
Key words: typing, injuries, posture	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Recap with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Let learners mention some examples of ICT tools used at home. Engage learners to discuss the uses of the ICT tools identified. Put learners in groups to brainstorm and discuss the possible health hazards associated with long term exposure to the use of ICT tools. Engage learners to watch videos on the health hazards of prolonged use of computing devices or show pictures of bad body postures and other hazards in using computing devices. e.g. *hearing impairment from loud Public Address (PA) Systems, vision impairment from the monitor, repetitive strain injury, Carpal tunnel syndrome, computer vision syndrome, etc.* Guide learners to discuss the risk involved in receiving a call while the mobile phone is on charge.	Set of computer, Video /pictures, wall chart		1. Identifying the possible health hazards of prolonged use of computing devices. 2. Understanding the preventive measures to offset the health and safety risks.

Guide learners to identify the health hazards associated with each ICT device.  • Television – affects vision • Computer – affects vision, back ache, wrist pain. • Mobile phone – radiation which can cause cancer, loud ring tones can damage hearing. • Radio – high volume damages hearing • Public address system – high volumes damages hearing. Brainstorm learners to provide preventive measures regarding the stated health and safety risks. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.			
Homework/Project Work/Community Engagement Suggestions			
• Identify any five ICT tools you know. • Explain the prolong health hazard associated with the tools identified above.			
Cross-Curriculum Links/Cross-Cutting Issues			
Potential Misconceptions/Student Learning Difficulties			
• Learners may not consider bad postures as health hazards			

Strand : Introduction to computing	**Class** : B7
Sub Strand: Health and Safety in using ICT tools	**Duration** : 50mins
Content Standard: B7.1.3.1. Demonstrate how to apply Health and Safety measures in using ICT Tools	**Date** :
Indicators: B7.1.3.1.2 Describe Safety measures in using ICT tools	**Day** :
Key words: typing, injuries, posture	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Recap with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Revise with learners on the possible health hazards associated with long term exposure to the use of ICT tools. Guide learners to discuss the safety precautions for the use of ICT tools. i.e. holding mouse, typing, looking at the computer screen, etc. and the risk of injuries to one's neck, back, eyes, etc. Demonstrate to learners, the correct body posture for working with a personal computer and let learners practice correct posture.	Set of computer, Video /pictures, wall chart		1. Identifying the possible health hazards of prolonged use of computing devices. 2. Understanding the preventive measures to offset the health and safety risks.



Guide learners to discuss the danger of spilling liquids on a computer device or on the electronic circuit.

Let learners discuss tripping over power cables and touching the negative and positive terminals of electrical wires

Reflection (10 mins)
Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework/Project Work/Community Engagement Suggestions

- Learners should complete a group-based project, listing any five (5) health and safety issues associated with the use of technology tools and suggest preventive measures to combat each.

Cross-Curriculum Links/Cross-Cutting Issues

Potential Misconceptions/Student Learning Difficulties

- Learners may not consider bad postures as health hazards

WEEK 8

Strand : Introduction to computing	**Class** : B7
Sub Strand: Health and Safety in using ICT tools	**Duration** : 50mins
Content Standard: B7.1.3.1. Demonstrate how to apply Health and Safety measures in using ICT Tools	**Date** :
Indicators: B7.1.3.1.3 Demonstrate how to apply Health and Safety measures in Using ICT Tools	**Day** :
Key words: typing, injuries, posture	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Recap with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Revise with learners on the possible health hazards associated with long term exposure to the use of ICT tools. Guide learners to discuss the safety precautions for the use of ICT tools. i.e. holding mouse, typing, looking at the computer screen, etc. and the risk of injuries to one's neck, back, eyes, etc. Get learners to demonstrate how to apply Health and Safety measures in using ICT Tools. 1. Phone - Do not answer or receive calls when charging a mobile phone. - Avoid long conversation - Use headsets or speaker out option - Keep mobile devices away from your body when sleeping	Set of computer, Video /pictures, wall chart	Page 7	1. Identifying the possible health hazards of prolonged use of computing devices. 2. Understanding the preventive measures to offset the health and safety risks.

- Turn Off cellular data and Wi-Fi when not in use, etc. 2. Avoid plugging ICT tools in damaged sockets 3. Do not overload socket. 4. Ensure a good body posture when using ICT tools 5. Take regular breaks when working with ICT devices . 6. Position your body correctly when using the computer 7. Television - keep lights on when watching television. - do not sit close to your television set. Learners in turns or groups demonstrate how to apply Health and Safety measures in using ICT Tools. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.			
Homework/Project Work/Community Engagement Suggestions			
• In groups of five (5), enumerate the possible health hazards of prolonged use of computing devices. • Suggest five (5) preventive measures to reduce health and safety risks associated with the use of computers			
Cross-Curriculum Links/Cross-Cutting Issues			
Potential Misconceptions/Student Learning Difficulties			
• Learners may not consider bad postures as health hazards			

Strand : Introduction to computing	**Class** : B7
Sub Strand: Health and Safety in using ICT tools	**Duration** : 50mins
Content Standard: B7.1.3.1. Demonstrate how to apply Health and Safety measures in using ICT Tools	**Date** :
Indicators: B7.1.3.1.4 Explore safety measures at workstations	**Day** :
Key words:7	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Recap with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Guide learners to identify measures that will help to eliminate workstation hazards and where they cannot be eliminated, In groups, learners discuss how to minimize the risk. (e.g. evaluating display screen, adjusting the chair for comfort, avoiding potential slips and falls, re- positioning of devices, etc.) ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	Set of computer, Video /pictures, wall chart		1. Identifying the possible health hazards of prolonged use of computing devices. 2. Understanding the preventive measures to offset the health and safety risks.

WEEK 9

Strand : Productivity Software	**Class** : B7
Sub Strand: Introduction to Word Processing	**Duration** : 100mins
Content Standard: B7.2.2.1 Demonstrate how to use Microsoft PowerPoint (Editing): Introduction to PowerPoint.	**Date** :
Indicators: B7.2.2.1.1. Explain the importance of presentation software	**Day** :
Key words: multimedia, presentation, Corel, Adobe	

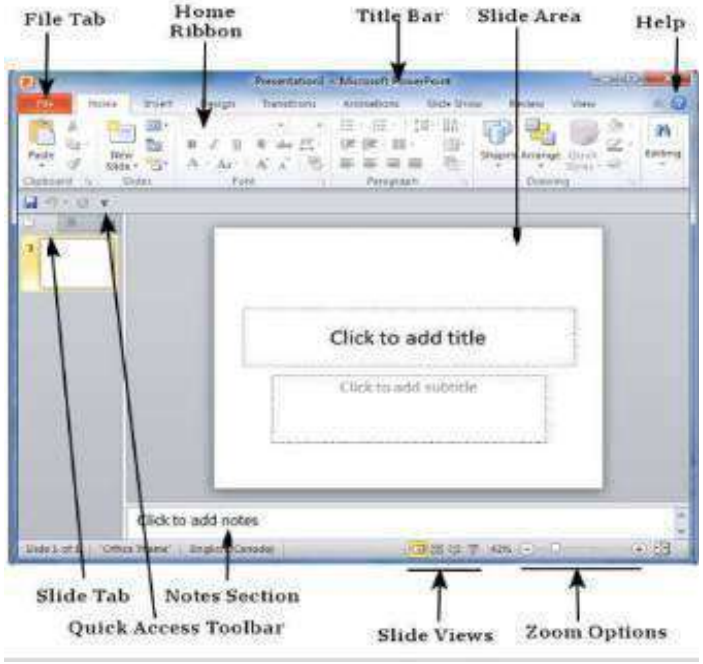
Activities For Learning & Assessment	Equipment/Resources	Learners Resource Page Ref.	Progression
Starter (5 mins) Using questions and answers, review learners understanding in the previous lesson. ***Main (35 mins)*** Brainstorm learners to discuss the meaning of presentation software. *Presentation software is a program used to create slide shows or multimedia presentations.* Guide learners to explain the meaning of multimedia. *Multimedia means presenting data in more than one medium, such as combining text, graphics, animation, video and sound.* Have learners to discuss the benefits of using presentation software. Brainstorm to elicit the names of some common presentation software packages (e.g. MS-PowerPoint, Corel Presentation, Adobe persuasion, Google Slides, Keynotes etc.) ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.	Computer with Microsoft PowerPoint, picture chart.		Describing the importance of presentation software

Take feedback from learners and summarize the lesson.			
Homework/Project Work/Community Engagement Suggestions			
• What is a presentation software? • What is meant multimedia? • Mention three benefits of using presentation software. • State three examples of presentation software.			
Cross-Curriculum Links/Cross-Cutting Issues			
Potential Misconceptions/Student Learning Difficulties			
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory			

Strand : Productivity Software	**Class** : B7
Sub Strand: Introduction to Word Processing	**Duration** : 100mins
Content Standard: B7.2.2.1 Demonstrate how to use Microsoft PowerPoint (Editing): Introduction to PowerPoint.	**Date** :
Indicators: B7.2.2.1.2. Explore features of MS-PowerPoint interface	**Day** :
Key words: Review tabs, language, spelling & grammar, thesaurus	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Recap with learners to find out what they already know about MS PowerPoint. Example: have learners to demonstrate how to use icons in the Text group in the Insert ribbon Share performance indicators and introduce the lesson. ***Main (35 mins)*** Show examples of MS-PowerPoint interface with the aid of a projector or pictures. In groups, learners observe and talk about the picture. Guide learners to identify some of the features of the power point interface. Demonstrate the functions of the features of the MS-PowerPoint. Call volunteer learners to give the correct process of the launching the MS-PowerPoint. Guide learners to explore MS-PowerPoint themes and templates. Learners to explore the use of the Proofing and Language group under the Review tab.	Computer with Microsoft PowerPoint, picture chart.		Exploring the features of MS-PowerPoint interface

Demonstrate the use of the Language, Spelling & Grammar, Thesaurus and other buttons in MS-PowerPoint under the Review tab.



Reflection (10 mins)

Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.			
Homework/Project Work/Community Engagement Suggestions			
• Give the correct steps of how to launch the MS-PowerPoint. • Identify and state the function of any five features of the MS-PowerPoint.			
Cross-Curriculum Links/Cross-Cutting Issues			
Potential Misconceptions/Student Learning Difficulties			
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory			

WEEK 10

Strand : Productivity Software	**Class** :B7
Sub Strand: Introduction to Presentation	**Duration** :
Content Standard: B7.2.2.1 Demonstrate how to use Microsoft PowerPoint (Editing): Introduction to PowerPoint.	**Date** :
Indicators: B7.2.2.1.3. Demonstrate how to use Special Characters. Design a 7-slide presentation in MS-PowerPoint using the tools under the Insert ribbon	**Day** :
Key words: Microsoft PowerPoint, review tabs, language, Spelling & Grammar, thesaurus	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Learners give the steps of launching the MS PowerPoint and talk about its purpose and benefits. Learners explore the use of the Proofing and Language sections under the Review tab. Learners practice the use of the Language, Spelling & Grammar, Thesaurus and other buttons ***Main (35 mins)*** Explore the use of special characters section under the Insert tab under the symbol group Present a prepared project or exercise using the editing group of the ribbons studied. Use projected examples of a PowerPoint interface with the aid of a projector or pictures Use projected examples of a PowerPoint interface with the aid of a projector or pictures	Computer with Microsoft PowerPoint, mouse or touchscreen input device, projector		Read on how to use special characters under the Insert tab within the Symbol group

Reflection (10 mins) We have learnt how to use Special Characters to design a 7-slide presentation in MS-PowerPoint Engage learners in a think-pair-share activity on how to use templates and themes. Take feedback from learners and summarize the lesson.			
Homework/Project Work/Community Engagement Suggestions			
Design a 7-slide presentation in MS-PowerPoint using the tools under the Insert ribbon			
Cross-Curriculum Links/Cross-Cutting Issues			
Potential Misconceptions/Student Learning Difficulties			
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory.			

Strand : Productivity Software	**Class** :
Sub Strand: Introduction to Presentation	**Duration** :
Content Standard: B7.2.2.2 Demonstrate how to use Microsoft PowerPoint (Formatting).	**Date** :
Indicators: B7.2.2.2.1. Demonstrate how to change text case, text size, text color and decorate text.	**Day** :
Key words: Microsoft PowerPoint, review tabs, language, Spelling & Grammar, thesaurus	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Learners give the steps of launching the MS PowerPoint and talk about its purpose and benefits. Learners explore the use of the Proofing and Language sections under the Review tab. Learners practice the use of the Language, Spelling & Grammar, Thesaurus and other buttons ***Main (35 mins)*** Explore the use of the Font group under the Home ribbon. Make use of the sentence case, font size, colour and font decoration features in MS-PowerPoint Project examples of PowerPoint interface to learners with the aid of a projector or pictures. ***Reflection (10 mins)***	Computer with Microsoft PowerPoint, mouse or touchscreen input device, projector		Read on how to use special characters under the Insert tab within the Symbol group

We have learnt how to change text case, text size, text color and decorate text. Engage learners in a think-pair-share activity on how to use templates and themes. Take feedback from learners and summarize the lesson.			
Homework/Project Work/Community Engagement Suggestions			
ask learners to develop a 5-page slide and apply the special characters under the Insert tab within the Symbol group.			
Cross-Curriculum Links/Cross-Cutting Issues			
Potential Misconceptions/Student Learning Difficulties			
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory.			

WEEK 11 & 12

Strand : Strands treated for the term	**Class** : B7
Sub Strand: Sub strands for the term	**Duration** : 50 mins
Content Standard: Demonstrate knowledge and understanding in the topics treated so far.	**Date** :
Indicators: Recall and summarize all what they have learnt within the term.	**Day** :
Key words:	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Revise previous lesson with learners using questions and answers. ***Main (35 mins)*** Revise with learners to discuss features of fourth generation computers. *The computers of fourth generation used very large scale integrated (VLSI) circuits. This made computers more powerful, compact, reliable and affordable. As a result, it gave rise to personal computers (PC) revolution. E.g. desktop computers, laptop, notebook, etc.* Guide learners to Identify and explore the physical features of a microchip Revise with learners to demonstrate the use of input devices in a computer laboratory/classroom. Have learners to distinguish manual (e.g. keyboard, etc.) and automatic (e.g. barcode reader etc.) input devices. Using pictures, brainstorm learners to come out with the use of the output devices. Guide learners to demonstrate the use of output devices in a computer laboratory or classroom.	Set of computer, Video /pictures, wall chart	Computing Curriculum Pg. 3	Learning how to identify and use output devices Proposing environmentally responsible practices that can be used to reduce the negative impact of computers and computer use on the environment

Let learners explore the advantages and disadvantages of output devices. Revise with learners to Identify magnetic storage devices, portable hard drives/Optical Discs and Drives or pictures of these items to class Guide learners to discuss in groups and present to the whole class examples of energy-efficient devices and techniques. Revise with learners on the negative impact of computers and computer use on the environment. Example: Negative effects – resource depletion ,pollution, privacy and security etc ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Ask learners how the lesson will benefit them in their daily lives.			
Homework/Project Work/Community Engagement Suggestions			
• State any two features of fourth generation computers • What is the main function of the microchip in computers • Identify any two negative effect of computers on the environment. • State two ways of reducing the negative effects identified. • What is an input device? • Mention the least input devices of a computer • Draw any 2 input device. • What is an output device? • Mention any five output device you know. • State the functions of the output devices stated above			
Cross-Curriculum Links/Cross-Cutting Issues			
Potential Misconceptions/Student Learning Difficulties			
The facilitator can arrange to use the nearby school's computer lab			

Strand : Strands treated for the term	**Class** : B7
Sub Strand: Sub strands for the term	**Duration** : 50 mins
Content Standard: Demonstrate knowledge and understanding in the topics treated so far.	**Date** :
Indicators: Preparation towards vacation	**Day** :
Key words:	

Activities For Learning & Assessment	**Equipment/Resources**	**Learners Resource Page Ref.**	**Progression**
Starter (5 mins) Ask learners to bring and display all the materials needed for the assessment. Educate them on the consequences of examination mal practice. ***Main (35 mins)*** Engage learners to arrange themselves properly to sit for the assessment test. Mark learners answer sheets or exercise books. Fill in learner's SBA books and report cards. Distribute learners answer sheets or exercise books for feedback.	Exercise books, pen, pencils, erasers, Answer sheets.		Answering end of term examination assessment questions.