LESSON PLANS FOR JUNIOR HIGH SCHOOLS

COMPUTING

BASIC 8

TERM 1

- Weekly forecast
- Detailed lesson plans

ONE VISION EXAMINATIONS CENTER (OVEC)
onevisionexams@gmail.com
0241487330 / 0248482827
Kumasi

FIRST TERM COMPUTING LESSON NOTES – BASIC 8

SCHEME OF LEARNING – TERM 1

WEEKS	STRAND	SUB STRANDS	INDICATORS	RESOURCES
1	Introduction To Computing	Generation Of Computers	B8.1.1.1.1	Set of computer, Video /pictures
2		Input & Output Devices.	B8.1.1.1.2-3	
3	Introduction To Computing	Storage Systems	B8.1.1.1.4	Set of computer, Video /pictures
4		File Management Techniques	B8.1.1.2.1-2	
5	Introduction To Computing	Technology in the community	B8.1.2.1.1-2	Set of computer, Video /pictures
6		Technology in the community	B8.1.2.1.3	
7	Introduction To Computing	Health & Safety in using ICT tools	B8.1.3.1.1	Set of computer, Video /pictures
8		Health & Safety in using ICT tools	B8.1.3.1.2	
9	Productivity Software	Word Processing	B8.2.1.1.1	Set of computer, Video /pictures
10	Productivity Software	Presentation	B8.2.1.1.1	Computer sets, modem and Pictures
11	Productivity Software	Presentation	B8.2.1.1.1	Computer sets, modem and Pictures
12	Productivity Software	Presentation	B8.2.1.1.1-	Computer sets, modem and Pictures
13	REVISION			

WEEK 1

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B8	**Class Size:**	**Sub Strand:** Generation Of Computers	
Content Standard: B8.1.1.1. Identify parts a computer and technology tools	**Indicator:** B8.1.1.1.1. Discuss the fifth generation of computers with emphasis of on quantum computing		**Lesson:** 1 of 2
Performance Indicator: Learners can discuss the fifth generation of computers with emphasis of on quantum computing		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 24			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Discuss the features of the fifth-generation computers. Describe quantum computing using the Google operational quantum computing called "Sycamore". Discuss parallel processing hardware and Artificial Intelligence (AI) software. Assessment State and explain three features of the fifth-generation computers ***Reflection (10mins)*** 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.	Pictures and videos	Identifying and describing the features of the fifth-generation computers.

Homework/Project Work/Community Engagement Suggestions
State and explain three features of the fifth-generation computers
Cross-Curriculum Links/Cross-Cutting Issues
None
Potential Misconceptions/Student Learning Difficulties
None

Week Ending:	**DAY:**	**Subject:** Computing
Duration: 60mins		**Strand:** Introduction To Computing
Class: B8	**Class Size:**	**Sub Strand:** Generation Of Computers

Content Standard: B8.1.1.1. Identify parts a computer and technology tools	**Indicator:** B8.1.1.1.1. Discuss the fifth generation of computers with emphasis of on quantum computing	**Lesson:** 2 of 2

Performance Indicator: Learners can discuss the fifth generation of computers with emphasis of on quantum computing	**Core Competencies:** CC8.2: CP6.1

Reference: Computing Curriculum P.g. 24

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Discuss the features of the fifth-generation computers. Describe quantum computing using the Google operational quantum computing called "Sycamore". Discuss parallel processing hardware and Artificial Intelligence (AI) software. Assessment State and explain three features of the fifth-generation computers ***Reflection (10mins)*** 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.	Pictures and videos	Identifying and describing the features of the fifth-generation computers.

Homework/Project Work/Community Engagement Suggestions

State and explain three features of the fifth-generation computers

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

None

WEEK 2

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B8	**Class Size:**	**Sub Strand:** Input & Output Devices.	
Content Standard: B8.1.1.1. Identify parts a computer and technology tools	**Indicator:** B8.1.1.1.2. Demonstrate understanding of direct data entry devices		**Lesson:** 1 of 2
Performance Indicator: Learners can demonstrate understanding of direct data entry devices		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 24			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Paste a chart on the board. Guide learners to identify Graphic tablet, Magnetic card reader, optical card reader, and QR code reader, Radio Frequency Identification (RFID) Readers from the pictures. Have learners explore features of these input devices. In groups, learners explore how these input devices work in real life situations. Guide learners to generate QR codes and link them to specific websites. Assessment What is an input device? Mention any six input devices you know. ***Reflection (10mins)*** 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.	Pictures and videos	Identifying and describing the features of the input devices.

Homework/Project Work/Community Engagement Suggestions
State and explain three features of (Graphic Tablet, Magnetic Card Reader, Optical Card Reader, QR code reader, Radio Frequency Identification (RFID) Readers
Cross-Curriculum Links/Cross-Cutting Issues

None
Potential Misconceptions/Student Learning Difficulties
None

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B8	**Class Size:**	**Sub Strand:** Input & Output Devices.	
Content Standard: B8.1.1.1. Identify parts a computer and technology tools	**Indicator:** B8.1.1.1.3. Examine the uses of the output devices:		**Lesson:** 1 of 2
Performance Indicator: Learners can examine the uses of the output devices		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum Pg. 24			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Revise with learners on some common output devices they know. Ask groups to identify any four types of output devices and state its functions. Guide learners to identify Braille printers, Impact, Inkjet, Thermal, Wax, 3D printers from pictures. Guide learners to explore the features of these output devices. Explore how these output devices work in real life situations. <u>Assessment</u> State and explain three features of Braille printers, Impact, Inkjet, Thermal, Wax, 3D printers ***Reflection (10mins)*** 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.	Pictures and videos	Identifying and describing the features of the output devices.

Homework/Project Work/Community Engagement Suggestions
State and explain three features of Braille printers, Impact, Inkjet, Thermal, Wax, 3D printers
Cross-Curriculum Links/Cross-Cutting Issues
None
Potential Misconceptions/Student Learning Difficulties

WEEK 3

Week Ending:	**DAY:**	**Subject:** Computing
Duration: 60mins		**Strand:** Introduction To Computing
Class: B8	**Class Size:**	**Sub Strand:** Storage Systems

Content Standard: B8.1.1.1. Identify parts a computer and technology tools	**Indicator:** B8.1.1.1.4 Describe storage devices	**Lesson:** 1 of 2

Performance Indicator: Learners can describe storage devices	**Core Competencies:** CC8.2: CP6.1
Reference: Computing Curriculum P.g. 24	

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Guide learners to revise on the terminologies used in storage systems. • **Storage device**- any mechanism capable of reading and writing information from and on a storage medium • **Storage medium**- any physical material capable of holding information either temporarily or permanently and at the same time information can be retrieved from it • **Storage**- holds items such as data, instruction and information • **Memory**- a place in storage media / devices where information is read, written, stored and retrieved by the CPU Guide learners to discuss the main storage devices of a computer and give examples. • Primary Storage Memory and Secondary Storage Memory Have learners' research and discuss the Flash Memory Storage Systems. *Flash memory is an electronic non-volatile computer memory storage medium that can be electronically erased and reprogrammed.* 	Pictures and videos	Illustrating the use of Flash Memory Storage Systems, Embedded Flash Memory, Flash Memory Cards and Readers, USB Flash Drives, Solid State Drives and Hybrid hard drives.

Demonstrate and illustrate the use of Flash Memory Storage Systems, Embedded Flash Memory, Flash Memory Cards and Readers, USB Flash Drives, Solid State Drives and Hybrid hard drives. Guide learners to discuss the features of Flash Memory Storage Systems, Embedded Flash Memory Flash Memory Cards and Readers. <u>Assessment</u> What is a storage device? List 5 examples of storage device. How does the Flash Memory Storage Systems work? ***Reflection** (10mins)* 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		
• List 5 examples of storage device. • How does the Flash Memory Storage Systems work?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
None		

Week Ending:	**DAY:**	**Subject:** Computing
Duration: 60mins		**Strand:** Introduction To Computing
Class: B8	**Class Size:**	**Sub Strand:** Storage Systems

Content Standard: B8.1.1.1. Identify parts a computer and technology tools	**Indicator:** B8.1.1.1.4 Describe storage devices	**Lesson:** 1 of 2

Performance Indicator: Learners can describe storage devices	**Core Competencies:** CC8.2: CP6.1

Reference: Computing Curriculum P.g. 24

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Guide learners to revise on the terminologies used in storage systems. • **Storage device**- any mechanism capable of reading and writing information from and on a storage medium • **Storage medium**- any physical material capable of holding information either temporarily or permanently and at the same time information can be retrieved from it • **Storage**- holds items such as data, instruction and information • **Memory**- a place in storage media / devices where information is read, written, stored and retrieved by the CPU Guide learners to discuss the main storage devices of a computer and give examples. • Primary Storage Memory and Secondary Storage Memory Have learners' research and discuss the Flash Memory Storage Systems. *Flash memory is an electronic non-volatile computer memory storage medium that can be electronically erased and reprogrammed.* 	Pictures and videos	Illustrating the use of Flash Memory Storage Systems, Embedded Flash Memory, Flash Memory Cards and Readers, USB Flash Drives, Solid State Drives and Hybrid hard drives.

Demonstrate and illustrate the use of Flash Memory Storage Systems, Embedded Flash Memory, Flash Memory Cards and Readers, USB Flash Drives, Solid State Drives and Hybrid hard drives. Guide learners to discuss the features of Flash Memory Storage Systems, Embedded Flash Memory Flash Memory Cards and Readers. <u>Assessment</u> What is a storage device? List 5 examples of storage device. How does the Flash Memory Storage Systems work? ***Reflection*** ***(10mins)*** 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		
• List 5 examples of storage device. • How does the Flash Memory Storage Systems work?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
None		

WEEK 4

Week Ending:	**DAY:**	**Subject:** Computing
Duration: 60mins		**Strand:** Introduction To Computing
Class: B8	**Class Size:**	**Sub Strand:** File Management Techniques

Content Standard: B8.1.1.2. Demonstrate the use of the Desktop features.	**Indicator:** B8.1.1.2.1 Explore the use of the Charms bar	**Lesson:** 1 of 2

Performance Indicator: Learners can explore the use of the Charms bar	**Core Competencies:** CC8.2: CP6.1
Reference: Computing Curriculum P.g. 24	

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Using pictures and charts, guide learners to identify and describe what a charms bar is. *A charm bar is a universal toolbar in the windows 8 operating system that can be accessed from anywhere no matter what you are doing or what application you are running.* In groups, have learners explore the options on the charms bar. *When activated, the charms bar contains 5 different buttons*; • *Search* • *Share* • *Start* • *Devices* • *Settings*  Engage learners to identify the icons in the Charms bar	Pictures and videos	Exploring the use and features of the Charms bar

Guide learners to describe features of the Charms bar icons.

Assessment
What is a charms bar?
Identify and explain the options on the charms bar?
Name any five icons on the charms bar.

Reflection (10mins)

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
Draw the charms bar and label any five parts
Cross-Curriculum Links/Cross-Cutting Issues
None
Potential Misconceptions/Student Learning Difficulties

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B8	**Class Size:**	**Sub Strand:** File Management Techniques	
Content Standard: B8.1.1.2. Demonstrate the use of the Desktop features.	**Indicator:** B8.1.1.2.2. Practice file management techniques (Drive Management)		**Lesson:** 1 of 2
Performance Indicator: Learners can demonstrate file management techniques		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 25			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Brainstorm learners to explain key terms in the lesson. • **Disk defragmentation** – *is the process of reorganizing the data stored on the hard drive so that related pieces of data are put back together.* • **File compression** – *is a data compression method in which the logical size of a file is reduced to save disk space for easier and faster transmission over a network or the internet.* • **Disk Partitioning** – *is the creation of one or more regions on secondary storage, so that each region can be managed separately.* Demonstrate the file management techniques such as defragmentation, compression of files, etc. Engage learners to explore ways of partitioning a hard disk. Guide learners to discuss the advantages and disadvantages of compressing files and disk defragmentation. <u>Assessment</u> 1. Define the following; i. Disk defragmentation ii. File compression iii. Disk partitioning 2. State three advantages and disadvantages of compressing files ***Reflection (10mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.	Pictures and videos	Practicing file management techniques

Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
Describe the steps you would use to partition a hard drive.		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		

WEEK 5

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B8	**Class Size:**	**Sub Strand:** Technology In the Community	
Content Standard: B8.1.2.1. Demonstrate the use of Technology in the Community	**Indicator:** B8.1.2.1.1. Discuss technologies that help to improve computer accessibility		**Lesson:** 1 of 2
Performance Indicator: Learners can Identify the categories of special needs and the technology they use.		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 24			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Guide learners to identify the categories of people with special needs. Engage learners to discuss technologies that can be used to help people with special needs (e.g. Computer software and hardware such as voice recognition programs, screen readers, and screen enlargement applications, to help people with mobility and sensory impairments use computers and mobile devices, etc.) <u>Assessment</u> Identify the categories of special needs and the technology they use. ***Reflection (10mins)*** 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.	Pictures and videos	Identifying the categories of special needs and the technology they use.

Homework/Project Work/Community Engagement Suggestions
Identify the categories of special needs and the technology they use.
Cross-Curriculum Links/Cross-Cutting Issues
None

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B8	**Class Size:**	**Sub Strand:** Technology In the Community	
Content Standard: B8.1.2.1. Demonstrate the use of Technology in the Community	**Indicator:** B8.1.2.1.1. Discuss technologies that help to improve computer accessibility		**Lesson:** 2 of 2
Performance Indicator: Learners can Identify the categories of special needs and the technology they use.		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum Pg. 24			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Guide learners to identify the categories of people with special needs. Engage learners to discuss technologies that can be used to help people with special needs (e.g. Computer software and hardware such as voice recognition programs, screen readers, and screen enlargement applications, to help people with mobility and sensory impairments use computers and mobile devices, etc.) <u>Assessment</u> Identify the categories of special needs and the technology they use. ***Reflection (10mins)*** 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.	Pictures and videos	Identifying the categories of special needs and the technology they use.

Homework/Project Work/Community Engagement Suggestions
Identify the categories of special needs and the technology they use.
Cross-Curriculum Links/Cross-Cutting Issues
None
Potential Misconceptions/Student Learning Difficulties

WEEK 6

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B8	**Class Size:**	**Sub Strand:** Technology In the Community	
Content Standard: B8.1.2.1. Demonstrate the use of Technology in the Community	**Indicator:** B8.1.2.1.3. Explain the issues associated with online services (e.g. social media, wikis, blogs,		**Lesson:** 1 of 2
Performance Indicator: Learners can Identify the categories of special needs and the technology they use.		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 24			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Brainstorm learners to mention some common online media they use. Example; WhatsApp, Twitter, Facebook, Instagram, Ayo, YouTube, etc. Have learners discuss in groups, the function of each of the online media identified above. They also discuss the advantages and disadvantages of each. Guide learners identify issues that are associated with online service or media. The 3 main issues that are going to be explained in depth are: • Reliability of Passwords, • Identity Theft • Network Security. **<u>Reliability of Passwords</u>** Many people tend to use very easy passwords for many of their accounts because they find simple passwords much easier to remember. What they don't know is that these simple passwords put their computer at risk, and allow for hackers to access their financial and personal information. Here is a list of some of the world's most popular passwords: • 123456 • password • Password1	Pictures and videos	Identifying the categories of special needs and the technology they use.

Identity Theft

Identity theft can also be known as identity fraud, which is a crime in which an imposter obtains key pieces of personally identifiable information, such as Social Security or driver's license numbers, in order to impersonate someone else for financial or legal purposes. Some ways that identity can be stolen are listed below

- Stealing your mail
- Looking for personal documents in your trash
- Tampering with ATMs or card machines in shops to steal your banking information
- Taking personal information through public sources (e.g. phone books and social media)

Network Security

Network security is any activity designed to protect the usability and integrity of your network and data.

There are many types of network securities that are available to us such as: Access control, Firewalls, and VPN which most of us are quite familiar with.

- **Access Control:** There is a process called network access control, which allows users to keep out potential attackers. In order to keep out potential attackers, it is necessary to recognize each user and each device.
- **Firewalls:** Firewalls put up a barrier between your trusted internal network and untrusted outside networks, such as the internet. A firewall can be hardware, software, or both.
- **VPN:** VPN stands for a virtual private network. A VPN encrypts the connection from an endpoint to a network, often over the internet. Typically, a remote-access VPN uses IPsec or Secure Sockets Layer to authenticate the communication between device and network

Assessment

1. Why do people use simple passwords that can easily be guessed?
2. Why is it good to use a different password for each website?
3. What are some ways that your identity can be stolen?
4. How does a firewall protect your computer?

Evaluate issues that are associated with online service delivery

Reflection (10mins)

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

- Why do people use simple passwords that can easily be guessed?
- Why is it good to use a different password for each website?
- What are some ways that your identity can be stolen?

Cross-Curriculum Links/Cross-Cutting Issues

None

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B8	**Class Size:**	**Sub Strand:** Technology In the Community	
Content Standard: B8.1.2.1. Demonstrate the use of Technology in the Community	**Indicator:** B8.1.2.1.3. Explain the issues associated with online services (e.g. social media, wikis, blogs,		**Lesson:** 2 of 2
Performance Indicator: Learners can Identify the categories of special needs and the technology they use.		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 24			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Brainstorm learners to mention some common online media they use. Example; WhatsApp, Twitter, Facebook, Instagram, Ayo, YouTube, etc. Have learners discuss in groups, the function of each of the online media identified above. They also discuss the advantages and disadvantages of each. Guide learners identify issues that are associated with online service or media. The 3 main issues that are going to be explained in depth are: • Reliability of Passwords, • Identity Theft • Network Security. **<u>Reliability of Passwords</u>** Many people tend to use very easy passwords for many of their accounts because they find simple passwords much easier to remember. What they don't know is that these simple passwords put their computer at risk, and allow for hackers to access their financial and personal information. Here is a list of some of the world's most popular passwords: • 123456 • password • Password1	Pictures and videos	Identifying the categories of special needs and the technology they use.

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- **VPN:** VPN stands for a virtual private network. A VPN encrypts the connection from an endpoint to a network, often over the internet. Typically, a remote-access VPN uses IPsec or Secure Sockets Layer to authenticate the communication between device and network

Assessment

- Why do people use simple passwords that can easily be guessed?
- Why is it good to use a different password for each website?
- What are some ways that your identity can be stolen?
- How does a firewall protect your computer?
- Evaluate issues that are associated with online service delivery

Reflection (10mins)

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

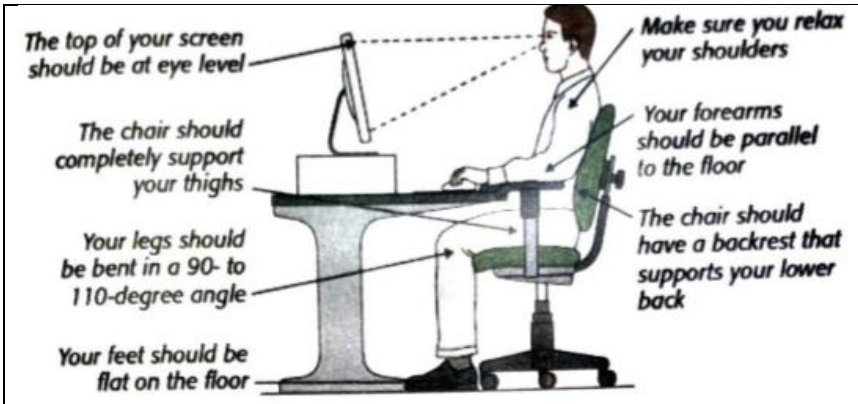
- Why do people use simple passwords that can easily be guessed?
- Why is it good to use a different password for each website?
- What are some ways that your identity can be stolen?

Cross-Curriculum Links/Cross-Cutting Issues

WEEK 7

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B8	**Class Size:**	**Sub Strand:** Health & Safety in using ICT tools	
Content Standard: B8.1.3.1. Demonstrate How to Apply Health and Safety measures in Using ICT Tools	**Indicator:** B8.1.3.1.1 Discuss health issues at workstations		**Lesson:** 1 of 2
Performance Indicator: Learners can discuss health issues at workstations		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum Pg. 27			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Brainstorm learners to describe a workstation. *A workstation is a place where work of a particular nature is carried out.* Guide learners to discuss the importance of taking regular breaks from bulk work (possibly after every hour). Demonstrate with learners some stretches you can do during the break <u>Triceps stretches</u> • Raise your arm and bend it so that your hand reaches toward the opposite side. • Use your other hand and pull the elbow toward your head. • Hold for 10 to 30 seconds and repeat on the other side. <u>Overhead stretch</u> • Extend each arm overhead. • Reach the opposite side. Hold for 10 to 30 seconds. • Repeat on the other side. <u>Upper body and arm stretch</u> • Clasp hands together above the head with palms facing outward. • Push your arms up, stretching upward, • Hold he pose for 10 to 30 seconds. Have learners discuss the adoption of good posture while at the computer.	Pictures and videos	Discussing health issues at workstations.



Let learners discuss the use of document holders to avoid having to lean over and bend your neck while looking at paperwork.

Reflection (10mins)

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

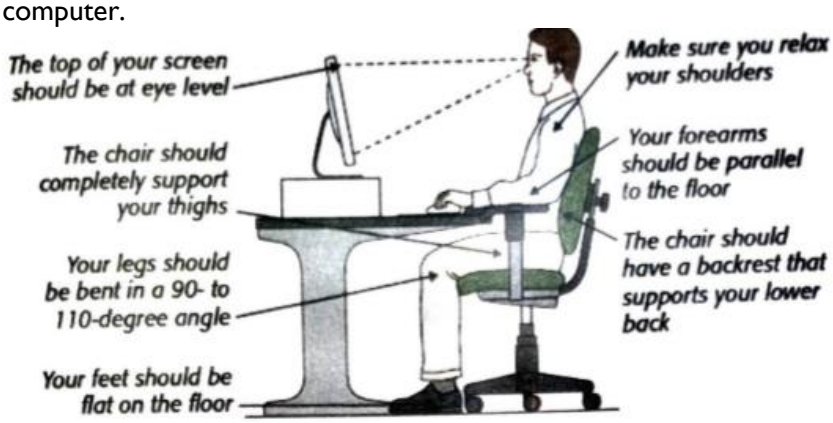
In groups, learners discuss the importance of taking regular breaks from bulk work

Cross-Curriculum Links/Cross-Cutting Issues

None

Week Ending:	**DAY:**	**Subject:** Computing
Duration: 60mins		**Strand:** Introduction To Computing
Class: B8	**Class Size:**	**Sub Strand:** Health & Safety in using ICT tools

Content Standard: B8.1.3.1. Demonstrate How to Apply Health and Safety measures in Using ICT Tools	**Indicator:** B8.1.3.1.1 Discuss health issues at workstations	**Lesson:** 2 of 2
Performance Indicator: Learners can discuss health issues at workstations	**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum Pg. 27		

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Have learners discuss the adoption of good posture while at the computer.  • Set your body to straighten and be comfortable. • Place both feet on the floor. • Tilt your elbows at a right angle. • There should be a 40-70 cm distance between a computer screen and your eyes. • Your head should be in front of the computer screen. • Your wrist should be on the level of the keyboard so that you can move your fingers easily. Fingers should not be lifted too much from the keyboard. • Your fingers should always be on home keys such as ASDF, and LKJ. • Focus your eyes on the screen while typing or on the page if you are typing by looking at it.	Pictures and videos	Discussing health issues at workstations.

Let learners discuss the use of document holders to avoid having to lean over and bend your neck while looking at paperwork. ***Reflection*** ***(10mins)*** 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, learners discuss the use and importance of document holders		
Cross-Curriculum Links/Cross-Cutting Issues		
None		

WEEK 8

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B8	**Class Size:**	**Sub Strand:** Health & Safety in using ICT tools	
Content Standard: B8.1.3.1. Demonstrate How to Apply Health and Safety measures in Using ICT Tools	**Indicator:** B8.1.3.1.2 Discuss safety measures in risk reduction at workstations		**Lesson:** 1 of 2
Performance Indicator: Learners can discuss health issues at workstations		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum Pg. 27			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Revise with learners on health issues associated with prolonged use of ICT tools. • Backache and Waist Pain: *Sitting behind a computer for a long period of time can cause backache and waist pain.* • Eyes Problems: *Long exposure to television and monitor may affect your sight or vision. The light rays from the television and monitor can cause irritation in the eyes.* • Hearing Problems: *You can over work your eardrums by listening to loud music from ICT tools such as Public-Address System, speakers, and headphones etc., which may weaken your eardrums, induce ringing in your ears and eventually damage your hearing.* • Radiation Exposure: *Some ICT tools such as mobile phones are believed to be emitting radiation which is very harmful to our health. Long term exposure to scanning machines, ultra- sound equipment and others can kill some cells and cause cancer.* • Straining of the Body: *Using mobile phones for hours and typing on the Keyboard for a long time can lead to a strain in the fingers, wrists and the back of the hand. The neck, shoulder and the arms can also be affected by strain.* Demonstrate the use of appropriate volumes when using speakers and earpieces.	Pictures and videos	Discussing health issues at workstations.

Demonstrate the use of screen protectors/spectacles to control the amount of light received by our eyes. Learners discuss the importance of using of screen protectors. Illustrate how not to overload electric sockets but use trailing multi-socket units rather than plug adapters. <u>Assessment</u> What is a workstation? State and explain three features of a correct workstation setup. Why is it important to use screen protectors when using a workstation ***Reflection** (10mins)* 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, learners discuss the importance of taking regular breaks from bulk work		
Cross-Curriculum Links/Cross-Cutting Issues		
None		

Week Ending:	**DAY:**	**Subject:** Computing
Duration: 60mins		**Strand:** Introduction To Computing
Class: B8	**Class Size:**	**Sub Strand:** Health & Safety in using ICT tools

Content Standard:	**Indicator:**	**Lesson:**
B8.1.3.1. Demonstrate How to Apply Health and Safety measures in Using ICT Tools	B8.1.3.1.2 Discuss safety measures in risk reduction at workstations	2 of 2

Performance Indicator:	**Core Competencies:**
Learners can discuss health issues at workstations	CC8.2: CP6.1

Reference: Computing Curriculum Pg. 27

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Revise with learners on health issues associated with prolonged use of ICT tools. • Backache and Waist Pain: *Sitting behind a computer for a long period of time can cause backache and waist pain.* • Eyes Problems: *Long exposure to television and monitor may affect your sight or vision. The light rays from the television and monitor can cause irritation in the eyes.* • Hearing Problems: *You can over work your eardrums by listening to loud music from ICT tools such as Public-Address System, speakers, and headphones etc., which may weaken your eardrums, induce ringing in your ears and eventually damage your hearing.* • Radiation Exposure: *Some ICT tools such as mobile phones are believed to be emitting radiation which is very harmful to our health. Long term exposure to scanning machines, ultra- sound equipment and others can kill some cells and cause cancer.* • Straining of the Body: *Using mobile phones for hours and typing on the Keyboard for a long time can lead to a strain in the fingers, wrists and the back of the hand. The neck, shoulder and the arms can also be affected by strain.* Demonstrate the use of appropriate volumes when using speakers and earpieces. Demonstrate the use of screen protectors/spectacles to control the amount of light received by our eyes.	Pictures and videos	Discussing health issues at workstations.

Learners discuss the importance of using of screen protectors. Illustrate how not to overload electric sockets but use trailing multi-socket units rather than plug adapters. <u>Assessment</u> State two effects of high sound volume Explain the dangers of overloading an electrical socket? ***Reflection** **(10mins)*** 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		
Briefly explain how you will stretch the following parts of your body; i. arms ii. Torso iii. Legs and knees		
Cross-Curriculum Links/Cross-Cutting Issues		
None		

WEEK 9

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Productivity Software	
Class: B8	**Class Size:**	**Sub Strand:** Introduction to word processing	
Content Standard: B8.2.1.1 Demonstrate How to Use Microsoft Word (tables and hyperlink pages)	**Indicator:** B8.2.1.1.1. Demonstrate how to create a table and hyperlinks.		**Lesson:** 1 of 2
Performance Indicator: Learners can demonstrate how to create a table and hyperlinks.		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum Pg. 28			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Explore the use of the Tables group under the Insert tab Create tables, columns and resize them in MS-Word Explore the use of hyperlinks to create non-linear presentations ***Reflection (10mins)*** 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.	Pictures and videos	Demonstrating how to create a table and hyperlinks

Homework/Project Work/Community Engagement Suggestions
In groups, learners create tables and hyperlinks in word documents
Cross-Curriculum Links/Cross-Cutting Issues
None

Week Ending:	**DAY:**	**Subject:** Computing
Duration: 60mins		**Strand:** Productivity Software
Class: B8	**Class Size:**	**Sub Strand:** Introduction to word processing

Content Standard:	**Indicator:**	**Lesson:**
B8.2.1.1 Demonstrate How to Use Microsoft Word (tables and hyperlink pages)	B8.2.1.1.2. Demonstrate how to merge, split, add formula, borders and shades	1 of 2

Performance Indicator:	**Core Competencies:**
Learners can demonstrate how to merge, split, add formula, borders and shades	CC8.2: CP6.1

Reference: Computing Curriculum Pg. 28

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Explore merging, splitting, adding formulas, borders and shades in MS-Word under the Insert tab. Explore the use of the bullets; decrease and increase indentation under the Home tab. Explore the use of the Border Button and set line spacing (e.g. explore the use of the dialogue Box Launcher button under the Home tab) ***Reflection (10mins)*** 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.	Pictures and videos	Demonstrating how to merge, split, add formula, borders and shades

Homework/Project Work/Community Engagement Suggestions

In groups, learners demonstrate how to merge, split, add formula, borders and shades

Cross-Curriculum Links/Cross-Cutting Issues

None

WEEK 10

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Productivity Software	
Class: B8	**Class Size:**	**Sub Strand:** Introduction To Presentation	
Content Standard: B8.2.1.1. Demonstrate how to add pictures, screenshot and edit and format pictures	**Indicator:** B8.2.1.1.1-2 Demonstrate how to add pictures, screenshot and edit and format pictures		**Lesson:** 1 OF 1
Performance Indicator: Learners can show how to add pictures, screenshot and edit and format pictures		**Core Competencies:** Creativity and innovation. 2. Communication and collaboration.	
Teaching/ Learning Resources	Computer sets, modem and Pictures		
References: Computing Curriculum Pg. 17			

DAY	PHASE 1: STARTER	PHASE 2: MAIN	PHASE 3: PLENARY
	Revise parts of the PowerPoint window. Ask learners where they can find the "Insert" tab.	Demonstrate how to insert a picture from file. Practical: Learners insert 2 images of local festivals (e.g., Homowo, Aboakyir) into their slide.	Learners share slides with partners. Class discussion on inserting local images.
	Ask: "How can we make images more attractive?"	Show how to format pictures: crop, apply borders, picture effects, and styles. Practical: Learners format inserted pictures from Day 1.	Quick quiz: Match formatting tools to their functions. Assign task: format a picture with border and effect.
	Brainstorm: "Why are screenshots useful?"	Demonstrate how to take and insert a screenshot (e.g., of a news website). Learners practice by inserting a screenshot of a government or school website.	Review 3 learner presentations. Class gives feedback. Assign learners to prepare a slide with formatted picture and screenshot.

WEEK 11

Week Ending:	**DAY:**	**Subject:** Computing
Duration: 60mins		**Strand:** Productivity Software
Class: B8	**Class Size:**	**Sub Strand:** Introduction To Presentation

Content Standard: B8.2.1.1. how to add a drawing canvas, shapes, and also edit, format and add text to shapes	**Indicator:** B8.2.1.1.1-2 ☐ Demonstrate how to add a drawing canvas, shapes, and also edit, format and add text to shapes	**Lesson:** 1 OF 1
Performance Indicator: Learners can show how to add a drawing canvas, shapes, and also edit, format and add text to shapes		**Core Competencies:** Creativity and innovation. 2. Communication and collaboration.
Teaching/ Learning Resources	Computer sets, modem and Pictures	
References: Computing Curriculum Pg. 17		

DAY	PHASE 1: STARTER	PHASE 2: MAIN	PHASE 3: PLENARY
	Ask: "What is a shape?" and "Where can we find the drawing canvas?"	Demonstrate how to insert a drawing canvas and basic shapes (e.g., rectangle, arrow). Learners insert 3 shapes.	Class discussion: How can we use shapes to explain processes?
	Recap: What shapes did we insert yesterday?	Demonstrate how to format shapes (fill color, outline, effects). Learners practice formatting shapes into traffic light colors (red, yellow, green).	Learners present formatted traffic light shapes. Teacher and peers give feedback.
	Ask: "What are text boxes used for?"	Show how to insert text into shapes (e.g., labeling parts of a plant or Ghana map). Learners create labeled diagram using shapes and text.	Gallery walk: Learners tour classmates' slides and give compliments or suggestions.

WEEK 12

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Productivity Software	
Class: B8	**Class Size:**	**Sub Strand:** Introduction To Presentation	
Content Standard: B8.2.1.1. how to add text to shapes and arrange shapes.	**Indicator:** B8.2.1.1.1-2 ☐ Demonstrate how to add text to shapes and arrange shapes.		**Lesson:** 1 OF 1
Performance Indicator: Learners can show how to add text to shapes and arrange shapes.		**Core Competencies:** Creativity and innovation. 2. Communication and collaboration.	
Teaching/ Learning Resources	Computer sets, modem and Pictures		
References: Computing Curriculum Pg. 17			

DAY	PHASE 1: STARTER	PHASE 2: MAIN	PHASE 3: PLENARY
	Revise inserting shapes and adding text. Ask learners: "How do we organize shapes in slides?"	Demonstrate shape alignment (left, right, center), layering (send to back/front). Learners practice arranging shapes to design a class timetable layout.	Peer assessment: Did learners arrange shapes in a meaningful structure?
	Ask: "Why is slide layout important?"	Practical: Learners create an information slide about sanitation using arranged text boxes and shapes. Emphasis on alignment and clarity.	Class critique session: groups review and score each other's slides.
	Recap: Key points from previous lessons.	Mini-project: Learners create a 5-slide presentation using all skills pictures, screenshots, shapes, and text.	Class presentation. Teacher assesses using a simple rubric (creativity, formatting, clarity).

REVISION AND END OF TERM ASSESSMENT

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Strands for the term	
Class: B8	**Class Size:**	**Sub Strand:** Sub strands for the term	
Content Standard: Demonstrate knowledge and understanding in the topics treated so far.	**Indicator:** Recall and summarize all what they have learnt within the term		**Lesson:** 1 of 2
Performance Indicator: Learners can recall and summarize all what they have learnt within the term		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum Pg. 28			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35mins)*** Revise with learners discuss the features of the fifth-generation computers. Learners in groups describe quantum computing using the Google operational quantum computing called "Sycamore". Discuss parallel processing hardware and Artificial Intelligence (AI) software. Guide learners to identify the categories of people with special needs. Engage learners to discuss technologies that can be used to help people with special needs (e.g. Computer software and hardware such as voice recognition programs, screen readers, and screen enlargement applications, to help people with mobility and sensory impairments use computers and mobile devices, etc.) <u>Assessment</u> State and explain three features of the fifth-generation computers Identify the categories of special needs and the technology they use. ***Reflection (10mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.	Pictures and videos	Demonstrating how to create a table and hyperlinks

Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
Identify the categories of special needs and the technology they use.		

Week Ending:	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Strands treated for the term	
Class: B8	**Class Size:**	**Sub Strand:** Sub strands for the term	
Content Standard: Demonstrate knowledge and understanding in the topics treated so far.	**Indicator:** Preparation towards vacation		**Lesson:** 1 of 1
Performance Indicator: Learners can answer all end of term assessment questions in their exercise books.		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Ask learners to bring and display all the materials needed for the assessment. Educate them on the consequences of examination mal practice. ***Main (35mins)*** 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. SBA, Assessment Questions and exercise books	Answering end of term examination questions