

FIRST TERM

WEEKLY LESSON NOTES – B9

WEEK I

Week Ending: 06-10-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9		Class Size:	Sub Strand: Components Of Computers	
Content Standard: B9.1.1.1 Identify parts of a Computer and Technology Tools		Indicator: B91.1.1.1. Discuss the trends in the next generation of computers		Lesson: 1 of 2
Performance Indicator: Learners can discuss the trends in the next generation of computers			Core Competencies: CC8.2: CP6.1	
New words	Quantum Computing, Supercomputer, Processing Power, Sycamore			
Reference: Computing Curriculum P.g. 40				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Show a short montage of older computer models (from the 1980s and 1990s) to modern-day computers. Ask learners to discuss in pairs or small groups the visible changes and upgrades. Share performance indicators and introduce the lesson.			Pictures and videos	Discussing the trends in the next generation of computers
Main (35mins) Initiate a discussion about the potential features and upgrades we might see in the next generation of computers. Ask learners to brainstorm and list down these features. Share some expert predictions about future computer trends (like AI integration, advanced augmented reality capabilities, or biocomputing). Discuss these as a class, comparing learners' predictions with expert ones. Introduce the concept of quantum computing, emphasizing how it differs from classical computing. Quantum Computing is a super-powered computer that uses special particles called "qubits" to do many calculations at once, making it much faster at solving certain complex problems than regular computers.				

• Classical Computing: This is the type of computing that uses "bits" that are either in an on (1) or off (0) state to process information. Describe the Google quantum computer, specifically the "Sycamore" processor. Compare its processing power with other supercomputers, highlighting the significant advancements. Using infographics or videos can make this complex subject more accessible to grade 7 learners. <u>Assessment</u> 1. What is quantum computing, and how does it differ from classical computing? 2. Why is Google's "Sycamore" significant in the world of computers? 3. Name one feature you expect to see in the next generation of computers. 4. How might the increased processing power of quantum computers impact industries like medicine or transportation? Reflection (10mins) Summarize the key points of the lesson. Emphasize the rapid advancement of computer technology and the exciting possibilities that the future holds, as well as the challenges and considerations that come with such advancements. 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		
• What is quantum computing, and how does it differ from classical computing? • Why is Google's "Sycamore" significant in the world of computers? • Name one feature you expect to see in the next generation of computers. • How might the increased processing power of quantum computers impact industries like medicine or transportation?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
None		

Week Ending: 06-10-2023		DAY:	Subject: Computing
Duration: 60mins			Strand: Introduction To Computing
Class: B9	Class Size:		Sub Strand: Components Of Computers
Content Standard: B9.1.1.1 Identify parts of a Computer and Technology Tools		Indicator: B9.1.1.1.2. Examine the concept of Perceptual Computing	Lesson: 2 of 2
Performance Indicator: Learners can examine the concept of Perceptual Computing			Core Competencies: CC8.2: CP6.1
New words	Perceptual Computing, Gesture Recognition, Voice Command, Sensory Input		
Reference: Computing Curriculum P.g. 40			
Activities For Learning & Assessment		Resources	Progression
Starter (5mins) Display a brief video clip or animation that demonstrates Perceptual Computing in action – for instance, a computer program reacting to human gestures or voice commands without the use of traditional input devices. Ask learners to discuss in pairs what they observed and how they think the computer is understanding user input. Share performance indicators and introduce the lesson.		Pictures and videos	Discussing the concept of Perceptual Computing
Main (35mins) Begin by explaining the overarching concept of Perceptual Computing, emphasizing how computers or devices can 'perceive' and respond to more natural, human-like inputs. Discuss the key features of Perceptual Computing, such as: • Gesture recognition (computers understanding hand or body movements) • Voice command and recognition • Facial recognition • Multi-touch interactions, etc. Highlight how these features differ from traditional computer interactions (keyboard, mouse). Break learners into small groups and assign each group a specific feature of Perceptual Computing. Ask them to discuss and brainstorm potential real-world applications or scenarios where their assigned feature would be useful.			
<u>Assessment</u> 1. What is Perceptual Computing? 2. How does gesture recognition differ from traditional computer input methods? 3. Name one potential application for voice command in everyday life.			

4. Why might facial recognition be a significant feature in Perceptual Computing? Reflection (10mins) Summarize the main points of the lesson, emphasizing the evolution of human-computer interaction and the potential benefits and challenges of Perceptual Computing. 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		
• What is Perceptual Computing? • How does gesture recognition differ from traditional computer input methods? • Name one potential application for voice command in everyday life. • Why might facial recognition be a significant feature in Perceptual Computing?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
None		

FIRST TERM

WEEKLY LESSON NOTES – B9

WEEK 2

Week Ending: 13-10-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9		Class Size:	Sub Strand: Components Of Computers	
Content Standard: B9.1.1.1 Identify parts of a Computer and Technology Tools		Indicator: B9.1.1.1.3 Discuss the uses of Output devices such as Wearable Displays, E-Paper, E-Books, Kindle		Lesson: 1 of 2
Performance Indicator: Learners can discuss the uses of Output devices such as Wearable Displays, E-Paper, E-Books, Kindle			Core Competencies: CC8.2: CP6.1	
New words	Wearable Display, E-Paper, E-Books, Kindle			
Reference: Computing Curriculum P.g. 40				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Display a collection of images – one of someone wearing Google Glass, one of an E-Paper display (like those in grocery store price tags), and one of someone reading on a Kindle. Ask students to discuss in pairs what they think these devices do and how they might be used in daily life. Share performance indicators and introduce the lesson.			Pictures and videos	Discussing the uses of Output devices such as Wearable Displays, E-Paper, E-Books, Kindle
Main (35mins) Begin with a brief overview of what an "output device" is in the realm of technology. Introduce the concept using Google Glass as an example. Discuss its features such as taking photos, accessing information hands-free, and its potential applications. Explain the basics of E-Paper, emphasizing its low energy usage and how it mimics real paper. Highlight common applications like price tags or certain types of watches. Describe the transition from traditional books to digital versions. Discuss the Kindle's features like adjustable text size, backlight for nighttime reading, and storage of thousands of books. Students to brainstorm in small groups other potential applications or scenarios where these devices could be beneficial.				

<u>Assessment</u> 1. What is a significant benefit of using Wearable Displays like Google Glass? 2. How does E-Paper mimic real paper and where might you commonly see it used? 3. What are some advantages of E-Books over traditional paper books? 4. How might devices like the Kindle impact the environment positively? <i>Reflection (10mins)</i> Recap the importance and versatility of modern output devices, noting their role in making our lives more convenient and potentially reducing our environmental footprint. 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		
• What is a significant benefit of using Wearable Displays like Google Glass? • How does E-Paper mimic real paper and where might you commonly see it used? • What are some advantages of E-Books over traditional paper books? • How might devices like the Kindle impact the environment positively?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
None		

Week Ending: 13-10-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9		Class Size:	Sub Strand: Components Of Computers	
Content Standard: B9.1.1.1 Identify parts of a Computer and Technology Tools		Indicator: B9.1.1.1.4 Describe Storage Systems		Lesson: 2 of 2
Performance Indicator: Learners can identify the various storage systems available, their functionalities, and implications of their use in our digital world.			Core Competencies: CC8.2: CP6.1	
New words	Cloud Storage, Network Storage, Holographic Storage, Smart Card			
Reference: Computing Curriculum P.g. 40				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Display an image of a floppy disk, a CD, a USB drive, and a cloud symbol. Ask students to discuss in pairs or small groups the evolution of storage over time and how each device or symbol represents storage. Share performance indicators and introduce the lesson. Main (35mins) Begin with an overview of storage systems, from physical storage (like CDs, DVDs) to digital storage methods. Discuss network storage systems, how cloud storage fits into this, and other forms like smart cards and holographic storage. Divide students into groups, assigning each group a specific storage type (e.g., one group might research Google Drive while another focuses on smart cards). Using classroom resources like computers or tablets, groups should explore their assigned storage system, focusing on its primary functions, benefits, and drawbacks. Each group will present their findings briefly. Facilitate a discussion comparing the different storage methods, especially highlighting the pros and cons of cloud storage. <u>Assessment</u> 1. What is the primary difference between cloud storage and network storage? 2. What is a specific use of a smart card in daily life? 3. How does holographic storage differ from traditional storage methods? 4. Name one advantage and one disadvantage of using cloud storage.			Pictures and videos	Describing Storage Systems

Reflection (10mins) Recap the day's discussions, emphasizing the increasing importance of understanding and navigating various storage systems in our modern world. 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		
• What is cloud storage, and how does it differ from local storage on your computer? • Name one benefit and one drawback of using cloud storage. • How does a smart card store information, and where might you encounter one in daily life? • What makes holographic storage unique compared to other storage methods?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
None		

FIRST TERM

WEEKLY LESSON NOTES – B9

WEEK 3

Week Ending: 20-10-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9		Class Size:	Sub Strand: Components Of Computers	
Content Standard: B9.1.1.2. Demonstrate the Use of the Desktop		Indicator: B9.1.1.2.1 Explore personalization of the computer		Lesson: 1 of 2
Performance Indicator: Learners can explore personalization of the computer			Core Competencies: CC8.2: CP6.1	
New words	Personalization, Desktop Icons, Mouse Pointers, Workspace			
Reference: Computing Curriculum P.g. 42				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Start with a quick poll, asking learners how many of them have personalized their computer at home, such as changing the wallpaper or the sounds. Follow up with a discussion about why they chose those specific customizations. Share performance indicators and introduce the lesson. Main (35mins) Discuss the concept of personalization. Ask learners why they think it's essential to make a space, digital or physical, truly theirs. Relate this to their bedrooms or personal spaces. Display on a projector or shared screen how to change desktop icons. Guide learners as they experiment with changing their desktop icons on their computers. Again, using a projector or shared screen, demonstrate how to alter the mouse pointer's appearance. Allow learners to choose and change their mouse pointers, encouraging them to explore different options available. In pairs or small groups, challenge learners to personalize their workspace in a way that represents a given theme (e.g., "nature," "space," "vintage").			Pictures and videos	Understand the importance of personalizing their computer workspace and will be able to change desktop icons and mouse pointers to reflect their personal tastes and preferences.

<u>Assessment</u> 1. What does personalization mean in the context of computers? 2. Why might someone want to change their desktop icons? 3. How can changing mouse pointers enhance your computer experience? 4. Name one benefit of personalizing your digital workspace. <i>Reflection (10mins)</i> 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		
• What does personalization mean in the context of computers? • Why might someone want to change their desktop icons? • How can changing mouse pointers enhance your computer experience? • Name one benefit of personalizing your digital workspace		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

Week Ending: 20-10-2023	DAY:	Subject: Computing
Duration: 60mins		Strand: Introduction To Computing
Class: B9	Class Size:	Sub Strand: Components Of Computers
Content Standard: B9.1.1.2. Demonstrate the Use of the Desktop	Indicator: B9.1.1.2.2 Identify and use file management techniques (drivers and hardware)	Lesson: 1 of 2
Performance Indicator: Learners can identify and use file management techniques		Core Competencies: CC8.2: CP6.1: CC7.5 :CC7.3
Reference: Computing Curriculum P.g. 42		
New words: Device Drivers, Plug-and-Play, Installation, Update, Delete		
Activities For Learning & Assessment	Resources	Progression
Starter (5mins) Start the lesson by playing a muted video. Ask learners why there's no sound. Likely answers will be "The volume is down" or "The speakers are off." After checking those, introduce the idea: "What if the computer doesn't know how to use the speakers? How does it communicate?" Share performance indicators and introduce the lesson. Main (35mins) Identify and explore the use of device drivers e. g. sound drivers and video graphic drivers 2. Explain plug-and-play devices. 3. Demonstrate how to install, update or delete drivers. Introduce the concept of device drivers and their function. Give specific examples, emphasizing sound drivers and video graphic drivers. Ask learners about their experiences, e.g., when a game didn't run because a graphics driver was outdated. Discuss what plug-and-play means. Show examples of such devices (e.g., USB drives, some headphones) and demonstrate how the computer automatically detects and often installs necessary drivers. Using a projector or shared screen, walk learners through the process of checking for driver updates, installing new drivers, and deleting outdated or unnecessary ones.	Pictures and videos	Understand the concept of device drivers, their importance, the basics of plug-and-play devices, and will be equipped with the knowledge to install, update, or delete drivers.

Encourage learners to follow along on their computers, guiding them through each step. <u>Assessment</u> 1. What is the primary function of a device driver? 2. What does "plug-and-play" mean in terms of devices and drivers? 3. Why might you need to update a driver? 4. What could be a potential problem if you delete a necessary driver? 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		
• What is the primary function of a device driver? • What does "plug-and-play" mean in terms of devices and drivers? • Why might you need to update a driver? • What could be a potential problem if you delete a necessary driver?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
None		

FIRST TERM

WEEKLY LESSON NOTES – B9

WEEK 4

Week Ending: 27-10-2023		DAY:	Subject: Computing									
Duration: 60mins			Strand: Introduction To Computing									
Class: B9		Class Size:		Sub Strand: Technology In The Community								
Content Standard: B9.1.2.1. Demonstrate the Use of Technology in the Community		Indicator: B9.1.2.1.1. Evaluate problems in the community that can be solved with technology		Lesson: 1 of 2								
Performance Indicator: Learners can identify various portable computing devices and discuss their impact on daily life.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)									
New words	Portable Computing Device, Impact, Integration, Dependence											
Reference: Computing Curriculum Pg. 43												
Activities For Learning & Assessment			Resources	Progression								
Starter (5mins) Begin by asking: "How many of you checked a portable device this morning before coming to school? What did you check?" Share performance indicators and introduce the lesson. Main (35mins) Brainstorm learners to list portable computing devices they use or know about. Examples: mobile phones, smartwatches, tablets, etc. Discuss the primary functions of these devices. Divide learners into small groups, assigning each a specific portable device. Ask groups to brainstorm and list ways their assigned device affects daily life. Example: <table><tr><td>Device</td><td>How it affects daily life.</td></tr><tr><td>Mobile Phones</td><td>Instant Communication, Navigation Information Access, Entertainment Scheduling & Reminders, Photography & Videography</td></tr><tr><td>Smartwatches</td><td>Health Monitoring, Notifications, Hands-free Operations, GPS & Navigation, Quick Tasks</td></tr><tr><td>Tablets</td><td>Reading & Research, Education, Productivity, Entertainment, Portability</td></tr></table>			Device	How it affects daily life.	Mobile Phones	Instant Communication, Navigation Information Access, Entertainment Scheduling & Reminders, Photography & Videography	Smartwatches	Health Monitoring, Notifications, Hands-free Operations, GPS & Navigation, Quick Tasks	Tablets	Reading & Research, Education, Productivity, Entertainment, Portability	Pictures and videos	Evaluating problems in the community that can be solved with technology
Device	How it affects daily life.											
Mobile Phones	Instant Communication, Navigation Information Access, Entertainment Scheduling & Reminders, Photography & Videography											
Smartwatches	Health Monitoring, Notifications, Hands-free Operations, GPS & Navigation, Quick Tasks											
Tablets	Reading & Research, Education, Productivity, Entertainment, Portability											

Groups will share their findings. Discuss how life might be different without these devices, leading into a conversation about dependence on technology. Assessment 1. Name two benefits of using a smartwatch. 2. How has the mobile phone changed the way we communicate? 3. Are there any drawbacks to being continuously connected through these devices? 4. How might these devices evolve in the next decade? 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		
• Name two benefits of using a smartwatch. • How has the mobile phone changed the way we communicate? • Are there any drawbacks to being continuously connected through these devices? • How might these devices evolve in the next decade?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

Week Ending: 27-10-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9		Class Size:	Sub Strand: Technology In The Community	
Content Standard: B9.1.2.1. Demonstrate the Use of Technology in the Community		Indicator: B9.1.2.1.1. Evaluate problems in the community that can be solved with technology		Lesson: 2 of 2
Performance Indicator: Learners can brainstorm and discuss community problems that can be addressed or alleviated using technology.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)	
New words	Solution, Innovation, Engagement, Sustainability			
Reference: Computing Curriculum P.g. 43				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Start by presenting a local community problem, e.g., "There's a lot of litter in our local park." Then ask: "How might technology help address this?" Share performance indicators and introduce the lesson. Main (35mins) Brainstorm learners to list problems they've noticed in their community. Write down these problems on the board for reference. Example: Lack of Safe Recreational Spaces, Improper Waste Disposal:, etc. Divide learners into small groups, assigning each a specific community problem from the board. Groups will brainstorm possible technological solutions for their problem. After brainstorming, each group will share their problem and proposed tech solution. Discuss the feasibility of these solutions and what it would take to implement them. Encourage critical thinking about potential challenges and how they could be overcome. <u>Assessment</u> 1. Name one community problem and a potential tech solution discussed in class. 2. How might technology help improve local transportation issues? 3. What are potential challenges in implementing tech solutions in communities? 4. How can the community be engaged in these tech-driven initiatives for better success? Reflection (10mins)			Pictures and videos	Evaluating problems in the community that can be solved with technology

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		
• Name one community problem and a potential tech solution discussed in class. • How might technology help improve local transportation issues? • What are potential challenges in implementing tech solutions in communities? • How can the community be engaged in these tech-driven initiatives for better success?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

FIRST TERM

WEEKLY LESSON NOTES

WEEK 5

Week Ending: 03-11-2023		DAY:	Subject: Computing
Duration: 60mins			Strand: Introduction To Computing
Class: B9	Class Size:		Sub Strand: Technology In The Community
Content Standard: B9.1.2.1. Demonstrate the Use of Technology in the Community		Indicator: B9.1.2.1.1. Evaluate problems in the community that can be solved with technology	Lesson: 2 of 2
Performance Indicator: Learners can brainstorm and discuss community problems that can be addressed or alleviated using technology.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)
New words	Solution, Innovation, Engagement, Sustainability		
Reference: Computing Curriculum P.g. 43			
Activities For Learning & Assessment			Resources
Starter (5mins) Start by presenting a local community problem, e.g., "There's a lot of litter in our local park." Then ask: "How might technology help address this?" Share performance indicators and introduce the lesson. Main (35mins) Brainstorm learners to list problems they've noticed in their community. Write down these problems on the board for reference. Example: Lack of Safe Recreational Spaces, Improper Waste Disposal:, etc. Divide learners into small groups, assigning each a specific community problem from the board. Groups will brainstorm possible technological solutions for their problem. After brainstorming, each group will share their problem and proposed tech solution. Discuss the feasibility of these solutions and what it would take to implement them. Encourage critical thinking about potential challenges and how they could be overcome. <u>Assessment</u> 1. Name one community problem and a potential tech solution discussed in class. 2. How might technology help improve local transportation issues? 3. What are potential challenges in implementing tech solutions in communities?			Pictures and videos
			Evaluating problems in the community that can be solved with technology

4. How can the community be engaged in these tech-driven initiatives for better success? 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		
• Name one community problem and a potential tech solution discussed in class. • How might technology help improve local transportation issues? • What are potential challenges in implementing tech solutions in communities? • How can the community be engaged in these tech-driven initiatives for better success?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

Week Ending: 03-11-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9		Class Size:	Sub Strand: Technology In The Community	
Content Standard: B9.1.2.1. Demonstrate the Use of Technology in the Community		Indicator: B9.1.2.1.2. Propose solutions to the problems identified		Lesson: 1 of 2
Performance Indicator: Learners can propose tech-based solutions to address specific community challenges.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)	
New words	Technology, Solution, Community, Innovation			
Reference: Computing Curriculum Pg. 43				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Show a brief video or presentation that highlights a community problem solved with technology (e.g., a mobile app addressing waste collection). Ask learners: "What problem was addressed in the video? How did technology help solve it?" Share performance indicators and introduce the lesson. Main (35mins) Revise with learners to brainstorm and list problems they observe in their community. Each group presents their list to the class, and common problems are noted. Guide learners to propose solutions to the problems identified. Using the list of common problems, groups will now brainstorm and propose technological solutions to these problems. For example, if one problem is "lack of timely public transportation," a solution could be "a real-time bus tracking app." Groups should consider the feasibility of their solutions, potential challenges, and the impact on the community. Each group will then present their tech-based solutions to the class. <u>Assessment</u> 1. Name one problem in the community you discussed today. 2. How can technology be a powerful tool in solving community challenges? 3. Provide an example of a technological solution to a community problem you've learned about today.			Pictures and videos	Proposing technological solutions to the problems identified in the community.

4. Why is it important to ensure that technological solutions are accessible to everyone in the 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. Highlight the significance of technology in modern problem-solving and the potential it holds for community betterment. Encourage learners to stay curious and consider tech-based solutions to challenges they encounter in their lives.		
Homework/Project Work/Community Engagement Suggestions		
• Ask learners to interview family members or neighbors about problems they face in the community that might be addressed with technology. • Learners can then draft a brief proposal on how they would tackle one of these problems using a tech solution.		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

FIRST TERM

WEEKLY LESSON NOTES

WEEK 6

Week Ending: 10-11-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9	Class Size:		Sub Strand: Technology In The Community	
Content Standard: B9.1.2.1. Demonstrate the Use of Technology in the Community		Indicator: B9.1.2.1.2. Propose solutions to the problems identified	Lesson: 1 of 2	
Performance Indicator: Learners can propose tech-based solutions to address specific community challenges.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)	
New words	Technology, Solution, Community, Innovation			
Reference: Computing Curriculum Pg. 43				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Show a brief video or presentation that highlights a community problem solved with technology (e.g., a mobile app addressing waste collection). Ask learners: "What problem was addressed in the video? How did technology help solve it?" Share performance indicators and introduce the lesson. Main (35mins) Revise with learners to brainstorm and list problems they observe in their community. Each group presents their list to the class, and common problems are noted. Guide learners to propose solutions to the problems identified. Using the list of common problems, groups will now brainstorm and propose technological solutions to these problems. For example, if one problem is "lack of timely public transportation," a solution could be "a real-time bus tracking app." Groups should consider the feasibility of their solutions, potential challenges, and the impact on the community. Each group will then present their tech-based solutions to the class. <u>Assessment</u> 1. Name one problem in the community you discussed today. 2. How can technology be a powerful tool in solving community challenges?			Pictures and videos	Proposing technological solutions to the problems identified in the community.

3. Provide an example of a technological solution to a community problem you've learned about today. 4. Why is it important to ensure that technological solutions are accessible to everyone in the 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		
• Ask learners to interview family members or neighbors about problems they face in the community that might be addressed with technology. • Learners can then draft a brief proposal on how they would tackle one of these problems using a tech solution.		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

Week Ending: 10-11-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9		Class Size:	Sub Strand: Technology In The Community	
Content Standard: B9.1.2.1. Demonstrate the Use of Technology in the Community		Indicator: B9.1.2.1.3. Design the solution selected		Lesson: 2 of 2
Performance Indicator: Learners can design technological solutions to address problems they've identified in their community.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)	
New words	Technology, Solution, Community, Innovation, Feasibility, Impact			
Reference: Computing Curriculum Pg. 43				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Show a short video or a news clip of a problem a community faced and the technological solution they implemented. Ask learners to discuss how technology was useful in addressing that problem. Share performance indicators and introduce the lesson. Main (35mins) In groups, learners brainstorm and list down problems they observe in their community. Each group presents their list to the class. Common problems are highlighted and noted down. Using the common problems list, each group now brainstorms potential tech-based solutions. Guide the learners to think about feasibility, potential challenges, and the potential impact of their proposed solutions. Once solutions are brainstormed, each group chooses one solution to focus on. They'll design or outline the solution in more detail. This can include drawing a prototype, outlining how it works, or explaining the benefits. Each group presents their designed technological solution, explaining the problem it addresses, how it works, its feasibility, potential challenges, and its potential impact on the community.			Pictures and videos	Proposing technological solutions to the problems identified in the community.

<u>Assessment</u> 1. What is one problem your group identified in the community? 2. Describe the technological solution your group designed. 3. What is one potential challenge your solution might face? 4. How will your solution have a positive impact on the community? 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		
• What is one problem your group identified in the community? • Describe the technological solution your group designed. • What is one potential challenge your solution might face? • How will your solution have a positive impact on the community?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

FIRST TERM

WEEKLY LESSON NOTES

WEEK 7

Week Ending: 17-11-2023		DAY:		Subject: Computing	
Duration: 60mins				Strand: Introduction To Computing	
Class: B9		Class Size:		Sub Strand: Health & Safety in the Use of ICT Tools	
Content Standard: B9.1.3.1. Demonstrate How to Apply Health and Safety Measures in the Use ICT Tools			Indicator: B9.1.3.1.1 Evaluate health issues at workstations		Lesson: 1 of 2
Performance Indicator: Learners can evaluate potential health issues associated with poorly designed workstations and recognize the benefits of ergonomic tools.				Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)	
New words		Ergonomics, Workstation, Health Issues, Posture			
Reference: Computing Curriculum Pg. 44					
Activities For Learning & Assessment				Resources	Progression
Starter (5mins) Show learners pictures of both a poorly set up workstation and an ergonomically designed one. Ask them to identify what's wrong with the poorly set up workstation and what improvements the ergonomic one offers. Share performance indicators and introduce the lesson. Main (35mins) Engage learners in a discussion about potential health issues that can arise from using a poorly designed workstation. This might include back pain, eye strain, repetitive strain injuries, etc. Ask learners if they or someone they know has ever experienced discomfort or pain due to a poor workstation setup. Present the ergonomic tools, such as an ergonomic keyboard and paper stand. Discuss their design features and how they help in preventing health issues. If possible, have an actual ergonomic keyboard and paper stand for learners to examine and try out.				Pictures and videos	Evaluating health issues at workstations



Let learners compare them to traditional tools and discuss their observations.

Divide learners into small groups. Each group is given a scenario of a person experiencing a health issue due to their workstation.

They should discuss and present what ergonomic changes or tools they would recommend to help alleviate the issue.

Assessment

1. What is ergonomics and why is it important for workstations?
2. Name two health issues that might arise from a poorly set up workstation.
3. How does an ergonomic keyboard differ from a regular one?
4. Why might someone use a paper stand at their 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

- What is ergonomics and why is it important for workstations?
- Name two health issues that might arise from a poorly set up workstation.
- How does an ergonomic keyboard differ from a regular one?
- Why might someone use a paper stand at their workstation?

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Learner Learning Difficulties

None

Week Ending: 17-11-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9		Class Size:	Sub Strand: Health & Safety in the Use of ICT Tools	
Content Standard: B9.1.3.1. Demonstrate How to Apply Health and Safety Measures in the Use ICT Tools		Indicator: B9.1.3.1.1 Evaluate health issues at workstations		Lesson: 2 of 2
Performance Indicator: Learners can evaluate the importance of proper lighting when working with computers and learn to set up an ideal lighting system to prevent eye strain and other health issues.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)	
New words	Glare, Ambient Light, Eye Strain, Ergonomic Lighting			
Reference: Computing Curriculum Pg. 44				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Begin with a simple demonstration. In a dim room, turn on a bright lamp positioned directly in front of the computer screen, creating glare. Ask learners to observe and describe how comfortable it feels looking at the screen. This will provide a tactile understanding of bad lighting practices. Share performance indicators and introduce the lesson. Main (35mins) Discuss with learners the problems they observed from the starter activity. Introduce the term "eye strain" and explain other symptoms like headaches, dry eyes, etc. Highlight the long-term effects of working with poor lighting. Adjust the room's ambient light to a comfortable level. Position the computer monitor so that windows and other light sources are to the side, rather than in front or behind it. Introduce the concept of "task lighting." Demonstrate using a desk lamp that provides light to the workspace but doesn't create glare on the screen. Discuss the benefits of adjustable or dimmable lights and the advantage of using screen filters or monitor hoods in very bright environments. If available, set up multiple lighting scenarios in different parts of the room (e.g., a workstation near a window, one under a bright overhead light, one using only task lighting).			Pictures and videos	Evaluating health issues at workstations

Allow learners to rotate through these stations, observing which setup feels the most comfortable and why. Engage learners in a discussion on the benefits of natural light compared to artificial light. Emphasize the importance of breaks and looking away from the screen regularly, especially when working in non-ideal lighting conditions. <u>Assessment</u> 1. Why is glare on a computer screen problematic? 2. How should a computer monitor be positioned relative to windows or bright light sources? 3. What is "task lighting," and why is it beneficial? 4. Why is natural light preferable when working on a computer? 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 is glare on a computer screen problematic? • How should a computer monitor be positioned relative to windows or bright light sources? • What is "task lighting," and why is it beneficial? • Why is natural light preferable when working on a computer?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

FIRST TERM

WEEKLY LESSON NOTES

WEEK 8

Week Ending: 24-11-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9		Class Size:	Sub Strand: Health & Safety in the Use of ICT Tools	
Content Standard: B9.1.3.1. Demonstrate How to Apply Health and Safety Measures in the Use ICT Tools		Indicator: B9.1.3.1.1 Evaluate health issues at workstations		Lesson: 2 of 2
Performance Indicator: Learners can evaluate the importance of proper lighting when working with computers and learn to set up an ideal lighting system to prevent eye strain and other health issues.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)	
New words	Glare, Ambient Light, Eye Strain, Ergonomic Lighting			
Reference: Computing Curriculum Pg. 44				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Begin with a simple demonstration. In a dim room, turn on a bright lamp positioned directly in front of the computer screen, creating glare. Ask learners to observe and describe how comfortable it feels looking at the screen. This will provide a tactile understanding of bad lighting practices. Share performance indicators and introduce the lesson. Main (35mins) Discuss with learners the problems they observed from the starter activity. Introduce the term "eye strain" and explain other symptoms like headaches, dry eyes, etc. Highlight the long-term effects of working with poor lighting. Adjust the room's ambient light to a comfortable level. Position the computer monitor so that windows and other light sources are to the side, rather than in front or behind it. Introduce the concept of "task lighting." Demonstrate using a desk lamp that provides light to the workspace but doesn't create glare on the screen. Discuss the benefits of adjustable or dimmable lights and the advantage of using screen filters or monitor hoods in very bright environments.			Pictures and videos	Evaluating health issues at workstations

If available, set up multiple lighting scenarios in different parts of the room (e.g., a workstation near a window, one under a bright overhead light, one using only task lighting). Allow learners to rotate through these stations, observing which setup feels the most comfortable and why. Engage learners in a discussion on the benefits of natural light compared to artificial light. Emphasize the importance of breaks and looking away from the screen regularly, especially when working in non-ideal lighting conditions. Assessment 1. Why is glare on a computer screen problematic? 2. How should a computer monitor be positioned relative to windows or bright light sources? 3. What is "task lighting," and why is it beneficial? 4. Why is natural light preferable when working on a computer? 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 is glare on a computer screen problematic? • How should a computer monitor be positioned relative to windows or bright light sources? • What is "task lighting," and why is it beneficial? • Why is natural light preferable when working on a computer?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

Week Ending: 24-11-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Introduction To Computing	
Class: B9		Class Size:	Sub Strand: Health & Safety in the Use of ICT Tools	
Content Standard: B9.1.3.1. Demonstrate How to Apply Health and Safety Measures in the Use ICT Tools		Indicator: B9.1.3.1.2 Evaluate Safety Risk Reduction issues at workstations		Lesson: 1 of 2
Performance Indicator: Learners can assess safety risk reduction issues at workstations, focusing on heat generation by machines like computers and printers, and ways to reduce excess heat.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)	
New words	Safety risk reduction, Workstation, Heat generation, Excess heat			
Reference: Computing Curriculum Pg. 44				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Begin with a real-world scenario: "Think about a time when you felt your computer or another electronic device was getting too hot. What did you do about it? Share your experiences." Encourage learners to discuss their encounters with hot electronic devices. Share performance indicators and introduce the lesson. Main (35mins) Explain the importance of identifying safety risk reduction issues at workstations, focusing on the potential dangers associated with excess heat generated by machines. Discuss the heat generated by common machines like computers, printers, and other electronic devices. Explain that excessive heat can not only cause discomfort but also pose risks to the machines and potentially lead to malfunctions or damage. Engage learners in a discussion about strategies to reduce excess heat from machines. Encourage them to brainstorm and share ideas like maintaining proper ventilation, avoiding overuse, and keeping machines clean and dust-free. Provide a practical activity where learners evaluate a workstation with electronic devices.			Pictures and videos	Evaluating health issues at workstations

Ask them to identify potential heat-related safety risks and suggest measures to mitigate them. Assessment 1. Why is it important to address safety risk reduction issues at workstations? 2. How does excess heat from electronic devices impact both comfort and safety? 3. What are some strategies to reduce excess heat from machines at workstations? 4. In the hands-on assessment, identify and describe a potential heat-related safety risk at a workstation, and propose a measure to reduce this risk. 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 is it important to address safety risk reduction issues at workstations? • How does excess heat from electronic devices impact both comfort and safety? • What are some strategies to reduce excess heat from machines at workstations? • In the hands-on assessment, identify and describe a potential heat-related safety risk at a workstation, and propose a measure to reduce this risk.		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

FIRST TERM

WEEKLY LESSON NOTES

WEEK 9

Week Ending: 30-11-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Productivity Software	
Class: B9	Class Size:		Sub Strand: Introduction to Word Processing	
Content Standard: B9.2.1.1 Demonstrate How to Use Microsoft Word (Multimedia)		Indicator: B9.2.1.1.1. Demonstrate how to add pictures, insert a screenshot and screen clipping and print screen	Lesson: 1 of 2	
Performance Indicator: Learners can explore and understand the features of clip art, screenshot, and screen clipping in the Insert Ribbon of a document.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)	
New words	Clip Art, Screenshot, Screen Clipping			
Reference: Computing Curriculum Pg. 45				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Revise with learners on the previous lesson. Share performance indicators and introduce the lesson. Main (35mins) Guide learners to open Microsoft Word or PowerPoint. Navigate to the "Insert" ribbon. Explore the Clip Art feature, searching for relevant images. Insert a clip art image into the document or slide. Discuss the importance of capturing specific content from the screen. Explore the "Screenshot" option in the "Insert" ribbon. Take a screenshot of a selected area on the computer screen. Insert the screenshot into the document or slide. Discuss scenarios where capturing a specific portion of the screen is useful. Explore the "Screen Clipping" option in the "Insert" ribbon. Take a screen clipping and insert it into the document or slide. Reflection (10mins)			Computers with Microsoft Office installed	Demonstrating how to add pictures, insert a screenshot and screen clipping and print screen

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		
• What is clip art, and how can it enhance the visual appeal of a document or presentation? • Explain the difference between a screenshot and a screen clipping. When might you use one over the other? • How can visual elements like clip art, screenshots, and screen clippings improve the overall communication of information in a document or presentation? • Demonstrate how to insert a clip art image, a screenshot, and a screen clipping into a Microsoft Word document or PowerPoint slide.		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		

Week Ending: 30-11-2023		DAY:	Subject: Computing	
Duration: 60mins			Strand: Productivity Software	
Class: B9		Class Size:	Sub Strand: Introduction to Word Processing	
Content Standard: B9.2.1.1 Demonstrate How to Use Microsoft Word (Multimedia)		Indicator: B9.2.1.1.1. Demonstrate how to add pictures, insert a screenshot and screen clipping and print screen		Lesson: 2 of 2
Performance Indicator: Learners can explore and understand the features of clip art, screenshot, and screen clipping in the Insert Ribbon of a document.			Core Competencies: Communication and Collaboration (CC), Digital Literacy (DL)	
New words	Print Screen Key, Screen Capture, Insert, Crop			
Reference: Computing Curriculum Pg. 45				
Activities For Learning & Assessment			Resources	Progression
Starter (5mins) Revise with learners on the previous lesson. Share performance indicators and introduce the lesson. Main (35mins) Explain the location and function of the Print Screen key on the keyboard. Discuss the difference between capturing the entire screen and capturing an active window. Show a brief demonstration of using the Print Screen key. Have learners open Microsoft Word. Instruct them to use the Print Screen key to capture the entire screen and an active window. Guide them in pasting the captured images into the Word document. Teach learners how to use the cropping tool in Microsoft Word. Allow learners to crop and format their captured images. Facilitate a class discussion on the benefits of using screen captures in documents and presentations. Encourage learners to share their experiences and insights. Reflection (10mins)			Computers with Microsoft Office installed	Demonstrating how to add pictures, insert a screenshot and screen clipping and print screen

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		
• What is the primary function of the Print Screen key? • Explain the difference between capturing the entire screen and capturing an active window using the Print Screen key. • How can the cropping tool in Microsoft Word enhance the appearance of a captured image? • In what situations might using the Print Screen key be beneficial for creating school projects or presentations?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Learner Learning Difficulties		
None		