TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 1

Date: 16th SEPT, 2022	**DAY:**	**Subject:** Computing	
Duration:		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Web Technologies	
Content Standard: B7.3.4.1. Demonstrate the use of a Web Browser	**Indicator:** B7.3.4.1.1 Identify the importance of the web in learning [Virtual Learning Environments]		**Lesson:** 1 of 2
Performance Indicator: Learners can identify the importance of the web in learning		**Core Competencies:** CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 19			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) In pairs, discuss: True or False: You can find information about everything on the internet. Have learners present their findings to the class for further discussion. • What type of information can we find on the internet? • What do you use those information for? • Can you information about everything on the internet? Share performance indicators and introduce the lesson. ***Main (35 mins)*** Brainstorm learners for the important of the internet. • What are some of the importance of using the internet? Their responses must include; for learning. In groups, have learners to discuss how we can use the internet to learn. Brainstorm learners for the meaning of Virtual Learning Environments (VLEs.) *Virtual Learning Environments is a web-based platform for the digital aspects of courses of study, usually within educational institution*. Engage learners to research on the internet for more information and Ghanaian instructions that run the Virtual Learning Environments. They can start with www.elearning.presbyunversity.edu.gh Put learners in groups of five. Let them explore the importance of VLEs for learning. Using the ICT center, allow self-paced learning (E-learning) among learners. Allow learners to take notes on; • Self-discipline	Pictures and videos	Describing the importance of Virtual Learning Environments

• Health Hazards • Sense of isolation • Level of understanding • The use of data bundle • Availability of TLMs Create opportunity to learn new skills without having to use a regular classroom. <u>Assessment</u> What is Virtual Learning Environments? What is the impact of Virtual Learning Environments on learners? What are the characteristics of Virtual Learning Environments? State three function of Virtual Learning Environments Write four benefits/importance of Virtual Learning Environments ***Reflection** (10 mins)* What have we learnt today? Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• Identify four advantages of VLEs • State four disadvantages of VLEs		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory		

Date: 16th SEPT, 2022	**DAY:**	**Subject:** Computing	
Duration: 60MINS		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Web Technologies	
Content Standard: B7.3.4.1. Demonstrate the use of a Web Browser (Search engine)	**Indicator:** B7.3.4.1.2 Explore the use of open learning websites in the classroom		**Lesson:** 2 of 2
Performance Indicator: Learners can describe the use of open learning websites in the classroom		**Core Competencies:** CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 19			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Using questions and answers, revise the previous lesson with learners. • What are Virtual Learning Environments? • What is the impact of Virtual Learning Environments on learners? • What are the characteristics of Virtual Learning Environments? • State three function of Virtual Learning Environments • Write four benefits/importance of Virtual Learning Environments Share performance indicators and introduce the lesson. ***Main (35 mins)*** In groups, let learners research on open learning websites. Learners present their findings to the class for discussion. • what is an open learning websites? • What are some examples of open learning websites? • Is open learning an LMS? Guide learners to explain the meaning of open learning websites. *Open learning is an online learning platform that goes beyond content delivery to focus on community, connectedness and learner engagement.* Engage learners to come up with some examples of open learning websites. Examples: Khan Academy, edX, Udemy, Udacity, etc. <u>Assessment</u> In groups, let learners research for more information on the examples of the open learning websites identified. Each group is supposed to prepare a flow chart of the content and uses of the open learning websites. Demonstrate and explore the uses of open learning websites in the classroom e.g., Khan Academy, Coursera, Edx, Saylor, etc. • Khan Academy – it is a study website that offers in-depth subjects. This site is useful to match your learning goals	Pictures and videos	Describing use of open learning websites in the classroom

• EdX – it is one of the best free online courses' providers. It offers university-level courses in varieties of disciplines. <u>Assessment</u> • What is a Learning Management Systems (LMS)? • Identify and describe five examples of open learning websites • What are open learning websites? • Give five examples of open learning websites. ***Reflection** **(10 mins)*** What have we lean today? 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		
• Explain the concept of Learning Management Systems (LMS) • Give examples of Learning Management Systems (LMS). • Is open learning website an LMS?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory		

TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 2

Date: 23rd SEPT, 2022	**DAY:**	**Subject:** Computing	
Duration: 50mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Web Technologies	
Content Standard: B7.3.4.1. Demonstrate the use of a Web Browser	**Indicator:** B7.3.4.1.3 Demonstrate the techniques for evaluating web pages		**Lesson:** 1 of 2
Performance Indicator: Learners can demonstrate the techniques for evaluating web pages		**Core Competencies:** CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 19			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Prepare flash cards of the key words with the words on one side of the card and the meaning on the reverse of the flash card. Issue each learner with a flash card. Get all the learners with the same key word to come to the front of the class to try to explain in their own words what they think it means and let the rest of the class choose the explanation that best fits the correct meaning. • Did you enjoy the game? • What words did you learn in the game? Share performance indicators and introduce the lesson. ***Main (35 mins)*** Brainstorm learners for the meaning of website. *Website is a collection of webpages linked to one another by hyperlinks*. Have learners explore the features of a website and tell its significance. In groups, let learners discuss the types of web pages. The present their findings to the class. • What are the five types of web pages? • How do you identify a type of web page? Guide learners to identify and describe the types of web pages. Example: personal websites, portfolio websites, small business websites, ecommerce websites and blog websites. <u>Assessment</u> What is the difference between a website and a webpage? What does a webpage consist of? State and explain the types of web pages.	Pictures and videos	Demonstrating the techniques for evaluating web pages

Reflection ***(10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• Is Google a website or webpage? Discuss. What is the difference between a website and a webpage? •		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory		

Date: 23rd SEPT, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Web Technologies	
Content Standard: B7.3.4.1. Demonstrate the use of a Web Browser	**Indicator:** B7.3.4.1.3 Demonstrate the techniques for evaluating web pages		**Lesson:** 1 of 2
Performance Indicator: Learners can demonstrate the techniques for evaluating web pages		**Core Competencies:** CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 19			
Keywords: Authority: Accuracy: Credibility: Content: Current , Functionality			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Prepare flash cards of the key words with the words on one side of the card and the meaning on the reverse of the flash card. Issue each learner with a flash card. Get all the learners with the same key word to come to the front of the class to try to explain in their own words what they think it means and let the rest of the class choose the explanation that best fits the correct meaning. • Did you enjoy the game? • What words did you learn in the game? Share performance indicators and introduce the lesson. ***Main (35 mins)*** In groups, learners research the criteria in evaluating a web page. Have learners to present their findings to the class for discussion. • How do you evaluate a webpage? • What are the ways of evaluating a webpage? • What is the importance of evaluating a webpage? Demonstrate with learners the techniques for evaluating web pages. • Authority: Who owns the content on the page. • Accuracy: How true is the information? • Credibility: Who wrote the page? Is the person an expert in the subject matter? • Content: Is it on the correct subject matter? • Current: Is the content up-to-date? When was the last time it was updated? • Functionality: Does the site work well? In turns, learners state and explain a criteria for evaluating a web page Through a whole discussion, guide learners to talk of the importance of evaluating a webpage. <u>Assessment</u> • How do you evaluate a webpage? • What are the ways of evaluating a webpage?	Pictures and videos	Demonstrating the techniques for evaluating web pages

• What is the importance of evaluating a webpage? ***Reflection*** ***(10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• How do you evaluate a webpage? • What are the ways of evaluating a webpage? • What is the importance of evaluating a webpage?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
The facilitator/teacher can arrange to use a nearby Senior High School (SHS) ICT laboratory		

TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 3

Week Ending: 30th SEPT, 2022	**DAY:**	**Subject:** Computing	
Duration: 50mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Introduction to Programming	
Content Standard: B7.4.1.1.1 understanding of the concept of programming	**Indicator:** B7.4.1.1.1 Demonstrate the correct use of programming terminologies		**Lesson:** 1 of 2
Performance Indicator: Learners can use of programming terminologies correctly		**Core Competencies:** CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 19			
Keywords: Algorithm, source code, compiler, data type, variable, constant, conditional, array, loop, function, class			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Ask learners questions to review what they already know about programming. • What makes your computers and phone work? • Do you know how your favorite game was developed? Share performance indicators and introduce the lesson. ***Main (35 mins)*** Guide learners to list the terminologies relating to programming to aid recall. E.g. algorithm, source code, compiler, etc. In groups, learners explain each of the terminologies listed above. • Algorithm is a set of steps used to complete a specific task. They are the building blocks for programming, and they allow things like computers, smartphones and websites to function and make decisions. • Source code is the list of human-readable instructions that a programmer writes (in word processing program) when he is developing a program. • Compiler is a special program that translates a programming language's source code into machine code. It is written high level, human readable language such as Java or C++. Develop a puzzle or game that will aid understanding the concept of programming. <u>Assessment</u> Explain the following as used in programming. i. loop, ii. function,	Pictures and videos	List the programming terminologies in alphabetical order or grouping to aid recall. Explain each of the terminologies.

iii. class ***Reflection*** ***(10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• List and explain, with practical examples, the terminologies relating to programming in alphabetical order		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
Learners may not easily understand the concepts and terminologies under programming		

Week Ending: 30th SEPT, 2022	**DAY:**	**Subject:** Computing	
Duration: 50mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Introduction to Programming	
Content Standard: B7.4.1.1.1 understanding of the concept of programming	**Indicator:** B7.4.1.1.1 Demonstrate the correct use of programming terminologies		**Lesson:** 1 of 2
Performance Indicator: Learners can use of programming terminologies correctly		**Core Competencies:** CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 19			
Keywords: Algorithm, source code, compiler, data type, variable, constant, conditional, array, loop, function, class			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Ask learners questions to review what they already know about programming. • What makes your computers and phone work? • Do you know how your favorite game was developed? Share performance indicators and introduce the lesson. ***Main (35 mins)*** Guide learners to list the terminologies relating to programming to aid recall. E.g. data type, variable, conditional array, etc. In groups, learners explain each of the terminologies listed above. • Data type is a classification that specifies which type of value a variable has and what type of mathematical, relational or logical operations can be supplied to it without causing an error. Types of data include integral, floating point, character string and composite types • Variable is a value that can change, depending on conditions or on information passed to the program. • Loop is a sequence of instructions that is continually repeated until a certain condition is reached. Develop a puzzle or game that will aid understanding the concept of programming. <u>Assessment</u> Explain the following as used in programming. i. constant, ii. algorithm, iii. compiler ***Reflection (10 mins)***	Pictures and videos	List the programming terminologies in alphabetical order or grouping to aid recall. Explain each of the terminologies.

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 and explain, with practical examples, the terminologies relating to programming in alphabetical order		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
Learners may not easily understand the concepts and terminologies under programming		

TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 4

Week Ending: 7th OCT, 2022	**DAY:**	**Subject:** Computing	
Duration: 50mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Introduction to Programming	
Content Standard: B7.4.1.1.1 understanding of the concept of programming	**Indicator:** B7.4.1.1.1 Demonstrate the correct use of programming terminologies		**Lesson:** 1 of 2
Performance Indicator: Learners can use of programming terminologies correctly		**Core Competencies:** CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 19			
Keywords: Algorithm, source code, compiler, data type, variable, constant, conditional, array, loop, function, class			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Ask learners questions to review what they already know about programming. • What makes your computers and phone work? • Do you know how your favorite game was developed? Share performance indicators and introduce the lesson. ***Main (35 mins)*** Guide learners to list the terminologies relating to programming to aid recall. E.g. data type, variable, conditional array, etc. In groups, learners explain each of the terminologies listed above. • Data type is a classification that specifies which type of value a variable has and what type of mathematical, relational or logical operations can be supplied to it without causing an error. Types of data include integral, floating point, character string and composite types • Variable is a value that can change, depending on conditions or on information passed to the program. • Loop is a sequence of instructions that is continually repeated until a certain condition is reached. Develop a puzzle or game that will aid understanding the concept of programming. <u>Assessment</u> Explain the following as used in programming. i. constant,	Pictures and videos	List the programming terminologies in alphabetical order or grouping to aid recall. Explain each of the terminologies.

ii. algorithm, iii. compiler ***Reflection*** ***(10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• List and explain, with practical examples, the terminologies relating to programming in alphabetical order		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
Learners may not easily understand the concepts and terminologies under programming		

Week Ending: 7th OCT, 2022	**DAY:**	**Subject:** Computing	
Duration: 50mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Introduction to Programming	
Content Standard: B7.4.1.1.1 understanding of the concept of programming	**Indicator:** B7.4.1.1.2 Demonstrate understanding in the use of data types (e.g. float, integer, string, char, etc.)	**Lesson:** 1 of 2	
Performance Indicator: Learners can use of programming terminologies correctly		**Core Competencies:** CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 19			
Keywords: Algorithm, source code, compiler, data type, variable, constant, conditional, array, loop, function, class			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Using questions and answers, revise the terminologies of Programming with learners. • Define the Following; 1. Algorithm 2. Source Code 3. Compiler Share performance indicators and introduce the lesson. ***Main (35 mins)*** Briefly explain what data type is. Guide learners to identify and list the various data types such as float, integer, string, char, etc. In groups, learners explain and give uses of each of the data types listed above. • Integer (int): Numeric data type for numbers without fractions. Example: All whole numbers e.g. 50, 400, 30 etc. • Floating Point (float): Numeric data type for numbers with fractions. Example: All numbers with points in them e.g. 101.1, 0.7, 405.8 etc. • String (str or text): Sequence of characters, digits. Example: hello, 0244443344 etc. • Character (char): Single letter, digit, punctuation mark, symbol, or blank space. Example: a, 1, ! In Groups, learners develop key questions around daily activities to identify the data type. For example, the first name of your best friend is written as a string data type ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.	Pictures and videos	Learners should be able to 1. Identify the various data types. 2. Explain what data types are. 3. Explain the function and importance of data types.

Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• Develop three (3) questions based on daily activities to identify the data types		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
Learners may not easily understand the concepts and terminologies under programming		

TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 5

Week Ending: 14th OCT, 2022	**DAY:**	**Subject:** Computing	
Duration: 50mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Introduction to Programming	
Content Standard: B7.4.1.1.1 understanding of the concept of programming	**Indicator:** B7.4.1.1.3 Demonstrate the use of constants and variables used in programming		**Lesson:** 1 of 2
Performance Indicator: Learners can demonstrate the use of constants and variables used in programming		**Core Competencies:** CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 19			
Keywords: Algorithm, source code, compiler, data type, variable, constant, conditional, array, loop, function, class			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Ask learners questions to review what they already know about programming. • What makes your computers and phone work? • Do you know how your favorite game was developed? Share performance indicators and introduce the lesson. ***Main (35 mins)*** This activity should be done groups. Write down these questions each on a paper. 1. What is computer programming? 2. State and explain any four terminologies used to describe programming concepts. 3. Identify and explain the various data types. Give learners enough time to finish the task. Call group 1 to do a presentation to the whole class. Allow learners to ask questions for more clarification. Revise with learners on the meaning of programming. Programming is the process of creating a set of instructions that tell a computer how to perform a task. Remind learners that programming is done using a variety of computer programming languages, such as JavaScript, Python and C++. Have learners mention some computer application softwares they know. Example: Microsoft Office, Mavis Beacon, FIFA, etc. Learners describe and demonstrate how these softwares work.	Pictures and videos	Demonstrate the use of constants and variables used in programming

Guide learners to discuss the use of variables and constants as useful ingredients for defining values that are used within a function or program.

- Learners to understand that in programming, constants are used to store information that is never going to change.
- Learners to understand variables in programming as any characteristics, number, or quantity that can be measured or counted.
  E.g. age, sex, country of birth, class grades, eye color, etc.

Have learners use the internet to search for more practical example of variables and constants in programing.
Example:
During the running of a program, there will be times when the program needs to remember/ sort a value so it can be read and used later on.

Variable name	Value
Level	4
High score	1202
Surname	Smith

Constant Name	value
VAT	20
Days	365
Bonus	100

In groups, learners discuss the benefits of using variables instead of constants in a program.

Reflection (10 mins)

Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework/Project Work/Community Engagement Suggestions

- State three benefits of using variables and constants in a program.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

Learners may not easily understand the concepts and terminologies under programming

Week Ending: 14th OCT, 2022	**DAY:**	**Subject:** Computing	
Duration: 50mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Introduction to Programming	
Content Standard: B7.4.1.1.1 understanding of the concept of programming	**Indicator:** B7.4.1.1.3 Demonstrate the use of constants and variables used in programming		**Lesson:** 1 of 2
Performance Indicator: Learners can demonstrate the use of constants and variables used in programming		**Core Competencies:** CI 6.3: DL5.1:	
Reference: Computing Curriculum P.g. 19			
Keywords: Algorithm, source code, compiler, data type, variable, constant, conditional, array, loop, function, class			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Ask learners questions to review what they already know about programming. • What makes your computers and phone work? • Do you know how your favorite game was developed? Share performance indicators and introduce the lesson. ***Main (35 mins)*** This activity should be done groups. Write down these questions each on a paper. 4. What is computer programming? 5. State and explain any four terminologies used to describe programming concepts. 6. Identify and explain the various data types. Give learners enough time to finish the task. Call group 1 to do a presentation to the whole class. Allow learners to ask questions for more clarification. Revise with learners on the meaning of programming. Programming is the process of creating a set of instructions that tell a computer how to perform a task. Remind learners that programming is done using a variety of computer programming languages, such as JavaScript, Python and C++. Have learners mention some computer application softwares they know. Example: Microsoft Office, Mavis Beacon, FIFA, etc. Learners describe and demonstrate how these softwares work. Guide learners to discuss the use of variables and constants as useful ingredients for defining values that are used within a function or program.	Pictures and videos	Demonstrate the use of constants and variables used in programming

- Learners to understand that in programming, constants are used to store information that is never going to change.
- Learners to understand variables in programming as any characteristics, number, or quantity that can be measured or counted.
  E.g. age, sex, country of birth, class grades, eye color, etc.

Have learners use the internet to search for more practical example of variables and constants in programing.
Example:
During the running of a program, there will be times when the program needs to remember/ sort a value so it can be read and used later on.

Variable name	Value
Level	4
High score	1202
Surname	Smith

Constant Name	value
VAT	20
Days	365
Bonus	100

In groups, learners discuss the benefits of using variables instead of constants in a program.

Reflection (10 mins)

Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework/Project Work/Community Engagement Suggestions

- State three benefits of using variables and constants in a program.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

Learners may not easily understand the concepts and terminologies under programming

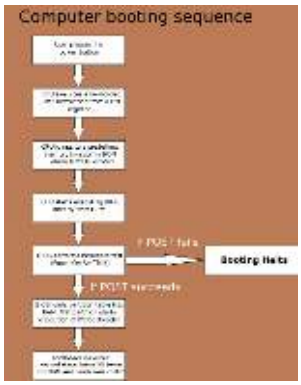
TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 6

Week Ending: 21st OCT, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Algorithm	
Content Standard: B7.4.2.1.Analyse the correct step-by-step procedure in solving any real-world problem	**Indicator:** B7.4.2.1.1 Understand the use of sequence, selection and iteration in writing a programme.		**Lesson:** 1 of 2
Performance Indicator: Learners can demonstrate the use of constants and variables used in programming		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 21			
Keywords: Algorithm, source code, compiler, data type, variable, constant, conditional, array, loop, function, class			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Write numbers (1-10) in an orderly arrangement to represent sequence. Have learners observe the pattern and talk about it. Task learners to write thier itinerary for the day in a logical order to depict sequence. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Brainstorm learners for the meaning of sequence, selection and iteration in writing a programme *Sequence is the order in which the statements in programing are executed one after another. The sequence of a program is extremely important as carrying out instructions in the wrong order leads to a program performing incorrectly*. Show pictures to learners to see a practical example of how a computer boots. 	Pictures and videos	Learners will be able to; Write down any set of numbers (e.g. 1-10) in an orderly arrangement to represent a sequence. 2. Present a case study where there is more than one option to choose from and still the same outcome is achieved. 3. Develop a solution to a problem which uses iteration to control the flow of the program.

Explain sequencing as the means through which the computer runs a code in order, one line at a time from the top to the bottom of a program. It starts at line 1, then executes line 2, then line 3 and so on until it reaches the last line of the program. Present a case study that has more than one option to choose from and still achieve the same outcome with any option chosen. For example, tea with or without sugar options can still meet a beverage outcome (selection). Develop a solution to a problem which uses iteration to control the flow of the programme (iteration). Guide la to describe the meanings of the term's algorithm, decomposition and abstraction. Demonstrate practically by using Programs such as lightbot for practical lessons. Assessment Present a case study where there is more than one option to choose from, and yet any option selected leads to the same outcome ***Reflection*** ***(10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• List a set of numbers (61-100) in an orderly arrangement to represent a sequence.		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
Learners may not easily understand the concepts and terminologies under programming		

Week Ending: 21st OCT, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Algorithm	
Content Standard: B7.4.2.1.Analyse the correct step-by-step procedure in solving any real-world problem	**Indicator:** B7.4.2.1.1 Understand the use of sequence, selection and iteration in writing a programme.		**Lesson:** 2 of 2
Performance Indicator: Learners can demonstrate the use of constants and variables used in programming		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 21			
Keywords: Algorithm, source code, compiler, data type, variable, constant, conditional, array, loop, function, class			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Write numbers (1-10) in an orderly arrangement to represent sequence. Have learners observe the pattern and talk about it. Task learners to write thier itinerary for the day in a logical order to depict sequence. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Brainstorm learners for the meaning of sequence, selection and iteration in writing a programme *Sequence is the order in which the statements in programing are executed one after another. The sequence of a program is extremely important as carrying out instructions in the wrong order leads to a program performing incorrectly*. Show pictures to learners to see a practical example of how a computer boots.  Explain sequencing as the means through which the computer runs a code in order, one line at a time from the top to the bottom of a program. It starts at line 1, then executes line 2, then line 3 and so on until it reaches the last line of the program.	Pictures and videos	Learners will be able to; Write down any set of numbers (e.g. 1-10) in an orderly arrangement to represent a sequence. 2. Present a case study where there is more than one option to choose from and still the same outcome is achieved. 3. Develop a solution to a problem which uses iteration to control the flow of the program.

Present a case study that has more than one option to choose from and still achieve the same outcome with any option chosen. For example, tea with or without sugar options can still meet a beverage outcome (selection). Develop a solution to a problem which uses iteration to control the flow of the programme (iteration). Guide la to describe the meanings of the term's algorithm, decomposition and abstraction. Demonstrate practically by using Programs such as lightbot for practical lessons. Assessment Present a case study where there is more than one option to choose from, and yet any option selected leads to the same outcome ***Reflection*** ***(10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• List a set of numbers (61-100) in an orderly arrangement to represent a sequence.		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
Learners may not easily understand the concepts and terminologies under programming		

TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 7

Week Ending: 28th OCT, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Algorithm	
Content Standard: B7.4.2.1.Analyse the correct step-by-step procedure in solving any real-world problem	**Indicator:** B7.4.2.1.2 Perform a linear search.		**Lesson:** 1 of 2
Performance Indicator: Learners can demonstrate the use of constants and variables used in programming		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 21			
Keywords: Algorithm, source code, compiler, data type, variable, constant, conditional, array, loop, function, class			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Guide learners to understand that linear search, also known as sequential search, is a process that checks every element in the list sequentially until the desired element is found. Demonstrate ability to locate a given value position out of a listed set of values. A suggested example is the use of the match function in MS Excel. Guide learners to list their ages, and use the list to demonstrate how they can arrange the given data in increasing and decreasing order ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	Pictures and videos	Learners will be able to; 1. Locate a given value position out of a listed set of values. 2. Arrange a given set of values or data in increasing and decreasing order.

Homework/Project Work/Community Engagement Suggestions

- Task learners to list the ages of five (5) family members and arrange the ages in increasing and decreasing order

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

Learners may not easily understand the concepts and terminologies under programming

Week Ending: 28th OCT, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Algorithm	
Content Standard: B7.4.2.1.Analyse the correct step-by-step procedure in solving any real-world problem	**Indicator:** B7.4.2.1.2 Perform a linear search.		**Lesson:** 1 of 2
Performance Indicator: Learners can demonstrate the use of constants and variables used in programming		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 21			
Keywords: Algorithm, source code, compiler, data type, variable, constant, conditional, array, loop, function, class			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Guide learners to understand that linear search, also known as sequential search, is a process that checks every element in the list sequentially until the desired element is found. Demonstrate ability to locate a given value position out of a listed set of values. A suggested example is the use of the match function in MS Excel. Guide learners to list their ages, and use the list to demonstrate how they can arrange the given data in increasing and decreasing order ***Reflection*** ***(10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	Pictures and videos	Learners will be able to; 1. Locate a given value position out of a listed set of values. 2. Arrange a given set of values or data in increasing and decreasing order.

Homework/Project Work/Community Engagement Suggestions

- Task learners to list the ages of five (5) family members and arrange the ages in increasing and decreasing order

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

Learners may not easily understand the concepts and terminologies under programming

TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 8

Week Ending: 4th NOV, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Robotics	
Content Standard: B7.4.3.1 Discuss Robot Intelligence Concepts	**Indicator:** B7.4.3.1.1 Review the various applications of robotic machines in society.		**Lesson:** 1 of 2
Performance Indicator: Learners can review the various applications of robotic machines in society		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 22			
Keywords: Artificial intelligence, machine learning, neural networks, virtual reality, augmented reality, gamification			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Guide learners to understand what a robot is. Brainstorm learners to describe the work of robots. Learners relate to some robots they saw on TVs and social media. Have learners recall some of the causes of unemployment as the introduction of robots in the production of goods and services. Guide learners to state the applications and uses of robots in society (e.g. manufacturing, health, education, assembling and packing, transport, surgery, laboratory research, mass production of consumer and industrial goods, taking pictures, etc.) Brainstorm learners for the meaning of Robotics. Robotics involves the design, construction, operation, and use of robots. The goal of robotics is to design machines that can help and assist humans. In groups, ask learners to bring to class simple gadgets to create simple robots. Example: fan using motor, Lego cars, cardboard robot, cardboard train, torchlight, etc.	Computer/laptop, internet source	Learners will be able to; State the applications and uses of robots in society. 2. Relate the uses of robots to real-life situations. 3. Explore the prospects and problems of using robots in everyday activities..

Explore prospects and challenges of using robots in various operations ***Reflection*** ***(10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• Task learners to explain in detail the importance of robots in relation to health delivery, manufacturing and transportation		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
Learners may not easily understand the concepts and terminologies under programming		

Week Ending: 4th NOV, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Communication Networks	
Class: B7	**Class Size:**	**Sub Strand:** Robotics	
Content Standard: B7.4.3.1 Discuss Robot Intelligence Concepts	**Indicator:** B7.4.3.1.1 Review the various applications of robotic machines in society.		**Lesson:** 1 of 2
Performance Indicator: Learners can review the various applications of robotic machines in society		**Core Competencies:** CC8.2: CP6.1	
Reference: Computing Curriculum P.g. 22			
Keywords: Artificial intelligence, machine learning, neural networks, virtual reality, augmented reality, gamification			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Guide learners to understand what a robot is. Brainstorm learners to describe the work of robots. Learners relate to some robots they saw on TVs and social media. Have learners recall some of the causes of unemployment as the introduction of robots in the production of goods and services. Guide learners to state the applications and uses of robots in society (e.g. manufacturing, health, education, assembling and packing, transport, surgery, laboratory research, mass production of consumer and industrial goods, taking pictures, etc.) Brainstorm learners for the meaning of Robotics. Robotics involves the design, construction, operation, and use of robots. The goal of robotics is to design machines that can help and assist humans. In groups, ask learners to bring to class simple gadgets to create simple robots. Example: fan using motor, Lego cars, cardboard robot, cardboard train, torchlight, etc. Explore prospects and challenges of using robots in various operations ***Reflection*** ***(10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.	Computer/laptop, internet source	Learners will be able to; State the applications and uses of robots in society. 2. Relate the uses of robots to real-life situations. 3. Explore the prospects and problems of using robots in everyday activities..

Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• Task learners to explain in detail the importance of robots in relation to health delivery, manufacturing and transportation		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
Learners may not easily understand the concepts and terminologies under programming		

TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 9

Week Ending: 11th NOV, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Computational Thinking	
Class: B7	**Class Size:**	**Sub Strand:** Artificial Intelligence	
Content Standard: B7.4.4.1. Discuss Artificial intelligence concepts	**Indicator:** B7.4.4.1.1 Discuss the application of various areas of artificial intelligence		**Lesson:** 1 of 2
Performance Indicator: Learners can discuss the application of various areas of artificial intelligence		**Core Competencies:** CC8.1: DL6.5	
Reference: Computing Curriculum P.g. 22			
Keywords: Artificial intelligence, machine learning, neural networks, virtual reality, augmented reality, gamification			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Divide the emerging technologies under artificial intelligence and show a short video (1-5 mins) or documentary on the principles of operation to generate classroom interaction. Consider each emerging technology and discuss the history, principle of operation, real-world applications, advantages and disadvantages in society Where the technology is available, allow learners to use. For example, you can engage them to write a documentary or report on specific sites explored using the virtual reality. <u>Assessment</u> Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	Computer/laptop, internet source	Learners will be able to; Compare the key technologies such as machine learning, Artificial Neural Networks (ANN), virtual reality, augmented reality, gamification, deep learning, data mining. Discuss the uses and importance of Artificial Intelligence (AI) to society
Homework/Project Work/Community Engagement Suggestions		

• Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do.
Cross-Curriculum Links/Cross-Cutting Issues
None
Potential Misconceptions/Student Learning Difficulties
Learners may not easily understand the concepts and terminologies under programming

Week Ending: 11th NOV, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Computational Thinking	
Class: B7	**Class Size:**	**Sub Strand:** Artificial Intelligence	
Content Standard: B7.4.4.1. Discuss Artificial intelligence concepts	**Indicator:** B7.4.4.1.1 Discuss the application of various areas of artificial intelligence		**Lesson:** 1 of 2
Performance Indicator: Learners can discuss the application of various areas of artificial intelligence		**Core Competencies:** CC8.1: DL6.5	
Reference: Computing Curriculum P.g. 22			
Keywords: Artificial intelligence, machine learning, neural networks, virtual reality, augmented reality, gamification			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Divide the emerging technologies under artificial intelligence and show a short video (1-5 mins) or documentary on the principles of operation to generate classroom interaction. Consider each emerging technology and discuss the history, principle of operation, real-world applications, advantages and disadvantages in society Where the technology is available, allow learners to use. For example, you can engage them to write a documentary or report on specific sites explored using the virtual reality. <u>Assessment</u> Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	Computer/laptop, internet source	Learners will be able to; Compare the key technologies such as machine learning, Artificial Neural Networks (ANN), virtual reality, augmented reality, gamification, deep learning, data mining. Discuss the uses and importance of Artificial Intelligence (AI) to society

Homework/Project Work/Community Engagement Suggestions

- Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 10

Week Ending: 18th NOV, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Computational Thinking	
Class: B7	**Class Size:**	**Sub Strand:** Artificial Intelligence	
Content Standard: B7.4.4.1. Discuss Artificial intelligence concepts	**Indicator:** B7.4.4.1.1 Discuss the application of various areas of artificial intelligence		**Lesson:** 1 of 2
Performance Indicator: Learners can discuss the application of various areas of artificial intelligence		**Core Competencies:** CC8.1: DL6.5	
Reference: Computing Curriculum P.g. 22			
Keywords: Artificial intelligence, machine learning, neural networks, virtual reality, augmented reality, gamification			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Divide the emerging technologies under artificial intelligence and show a short video (1-5 mins) or documentary on the principles of operation to generate classroom interaction. Consider each emerging technology and discuss the history, principle of operation, real-world applications, advantages and disadvantages in society Where the technology is available, allow learners to use. For example, you can engage them to write a documentary or report on specific sites explored using the virtual reality. <u>Assessment</u> Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	Computer/laptop, internet source	Learners will be able to; Compare the key technologies such as machine learning, Artificial Neural Networks (ANN), virtual reality, augmented reality, gamification, deep learning, data mining. Discuss the uses and importance of Artificial Intelligence (AI) to society
Homework/Project Work/Community Engagement Suggestions		

• Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do.
Cross-Curriculum Links/Cross-Cutting Issues
None
Potential Misconceptions/Student Learning Difficulties
Learners may not easily understand the concepts and terminologies under programming

Week Ending: 18th NOV, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Computational Thinking	
Class: B7	**Class Size:**	**Sub Strand:** Artificial Intelligence	
Content Standard: B7.4.4.1. Discuss Artificial intelligence concepts	**Indicator:** B7.4.4.1.1 Discuss the application of various areas of artificial intelligence		**Lesson:** 1 of 2
Performance Indicator: Learners can discuss the application of various areas of artificial intelligence		**Core Competencies:** CC8.1: DL6.5	
Reference: Computing Curriculum P.g. 22			
Keywords: Artificial intelligence, machine learning, neural networks, virtual reality, augmented reality, gamification			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Divide the emerging technologies under artificial intelligence and show a short video (1-5 mins) or documentary on the principles of operation to generate classroom interaction. Consider each emerging technology and discuss the history, principle of operation, real-world applications, advantages and disadvantages in society Where the technology is available, allow learners to use. For example, you can engage them to write a documentary or report on specific sites explored using the virtual reality. <u>Assessment</u> Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	Computer/laptop, internet source	Learners will be able to; Compare the key technologies such as machine learning, Artificial Neural Networks (ANN), virtual reality, augmented reality, gamification, deep learning, data mining. Discuss the uses and importance of Artificial Intelligence (AI) to society

Homework/Project Work/Community Engagement Suggestions

- Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties

TERM THREE
WEEKLY LESSON NOTES – B7
WEEK 11

Week Ending: 25th NOV, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Computational Thinking	
Class: B7	**Class Size:**	**Sub Strand:** Artificial Intelligence	
Content Standard: B7.4.4.1. Discuss Artificial intelligence concepts	**Indicator:** B7.4.4.1.1 Discuss the application of various areas of artificial intelligence		**Lesson:** 1 of 2
Performance Indicator: Learners can discuss the application of various areas of artificial intelligence		**Core Competencies:** CC8.1: DL6.5	
Reference: Computing Curriculum P.g. 22			
Keywords: Artificial intelligence, machine learning, neural networks, virtual reality, augmented reality, gamification			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Divide the emerging technologies under artificial intelligence and show a short video (1-5 mins) or documentary on the principles of operation to generate classroom interaction. Consider each emerging technology and discuss the history, principle of operation, real-world applications, advantages and disadvantages in society Where the technology is available, allow learners to use. For example, you can engage them to write a documentary or report on specific sites explored using the virtual reality. <u>Assessment</u> Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	Computer/laptop, internet source	Learners will be able to; Compare the key technologies such as machine learning, Artificial Neural Networks (ANN), virtual reality, augmented reality, gamification, deep learning, data mining. Discuss the uses and importance of Artificial Intelligence (AI) to society
Homework/Project Work/Community Engagement Suggestions		

• Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do.
Cross-Curriculum Links/Cross-Cutting Issues
None
Potential Misconceptions/Student Learning Difficulties
Learners may not easily understand the concepts and terminologies under programming

Week Ending: 25th NOV, 2022	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Computational Thinking	
Class: B7	**Class Size:**	**Sub Strand:** Artificial Intelligence	
Content Standard: B7.4.4.1. Discuss Artificial intelligence concepts	**Indicator:** B7.4.4.1.1 Discuss the application of various areas of artificial intelligence		**Lesson:** 1 of 2
Performance Indicator: Learners can discuss the application of various areas of artificial intelligence		**Core Competencies:** CC8.1: DL6.5	
Reference: Computing Curriculum P.g. 22			
Keywords: Artificial intelligence, machine learning, neural networks, virtual reality, augmented reality, gamification			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5 mins) Revise with learners to review their understanding in the previous lesson. Share performance indicators and introduce the lesson. ***Main (35 mins)*** Divide the emerging technologies under artificial intelligence and show a short video (1-5 mins) or documentary on the principles of operation to generate classroom interaction. Consider each emerging technology and discuss the history, principle of operation, real-world applications, advantages and disadvantages in society Where the technology is available, allow learners to use. For example, you can engage them to write a documentary or report on specific sites explored using the virtual reality. <u>Assessment</u> Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do. ***Reflection (10 mins)*** Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	Computer/laptop, internet source	Learners will be able to; Compare the key technologies such as machine learning, Artificial Neural Networks (ANN), virtual reality, augmented reality, gamification, deep learning, data mining. Discuss the uses and importance of Artificial Intelligence (AI) to society

Homework/Project Work/Community Engagement Suggestions

- Leaners must investigate the things human intelligence can do in terms of reasoning that computer/artificial intelligence cannot do.

Cross-Curriculum Links/Cross-Cutting Issues

None

Potential Misconceptions/Student Learning Difficulties