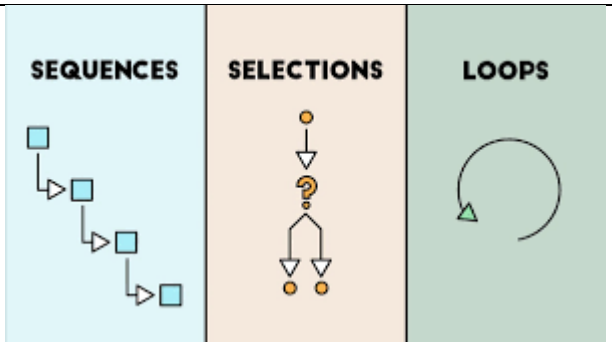
BASIC 7

WEEKLY LESSON PLAN – WEEK 10

Learning Indicator(s)	**B7.4.2.1**		
Performance Indicator	**B7.4.2.1.1 Understand the use of sequence, selection and iteration in writing a programme. Describe the meanings of the term's algorithm, decomposition and abstraction**		
Week Ending	19-11-2022		
FORM	B.S.7		
Subject	Computing		
Reference	Teacher Resource Pack, Learners Resource Pack, Curriculum		
Teaching / Learning Resources	Personal Computer, Smart Phone, Word Chart		
CORE COMPETENCIES	**Core Competencies:** CI, CC, CL, CI 6.1, CC 7.4		
DAYS	**PHASE 1 : STARTER**	**PHASE 2: MAIN**	**PHASE 3: REFECTION**
MONDAY **15-11-2022**	Discuss the meaning of Computational Thinking with the Learners.	1. Assist Learners to explain the meanings of the term's algorithm, decomposition and abstraction. 2. Facilitator to write numbers (1-10) in an orderly arrangement to represent sequence. Write your itinerary for a day in a logical order (Sequence). 3. Discuss how to write Programming codes in Sequence, selection and loop. **What is sequence selection and iteration in programming?** Sequence is the order in which instructions occur and are processed. Selection determines which path a program takes when it is running. Iteration is the repeated execution of a section of code when a program is running.	**Core Competencies;** **1.** Ability to effectively define goals towards solving a problem **2.** Explain ideas in a clear order with relevant detail, using correct construction and structure of speech.

		 **What is selection in a algorithm?** Selection is **a decision or question**. At some point in an algorithm there may need to be a question because the algorithm has reached a step where one or more options are available. Depending on the answer given, the algorithm will follow certain steps and ignore others. **Algorithm for Selection Sort** 1. Step 1: For i = 1 to n-1. 2. step 2: Set min = arr[i] 3. step 3: Set position = i. 4. step 4: For j = i+1 to n-1 repeat: 5. if (min > arr[j]) 6. Set min = arr[j] 7. Set position = j. 8. [end of if]	
THURSDAY **18-11-2022**	Facilitator 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	1. Learners to brainstorm to give examples of iteration in a Program. 2. Guide Learners to develop a solution to a problem which uses iteration to control the flow of the programme. 3. Discuss with Learners the usefulness of iteration in solving programming problems. **some examples of iteration in a program**; Iteration is when the same procedure is repeated multiple times. Some examples are **long division, the Fibonacci numbers, prime numbers, and the calculator game**. Some of these used recursions as well, but not all of them. bunch of successive integers, or repeat a procedure a given number of times **How does iteration control the flow of instructions in a program?**	**Core Competencies;** **1.** Ability to effectively define goals towards solving a problem **2.** Explain ideas in a clear order with relevant detail, using correct construction and structure of speech.

	outcome (selection).	Iteration in programming means **repeating steps, or instructions , over and over again**. This is often called a 'loop'. Algorithms consist of instructions that are carried out (performed) one after another. **How is iteration useful in solving Programming Problems;** Iteration allows us to simplify our algorithm by stating that we will repeat certain steps until told otherwise. This makes designing algorithms quicker and simpler because they don't have to include lots of unnecessary steps.