

GIRLS' HIGH SCHOOL INFORMATION TECHNOLOGY



Form 5 Academic Year: JANUARY – MARCH 2026

Term 2 – 13 weeks

PROGRAM IMPLEMENTATION

GENERAL OBJECTIVES

On completion of this Section, students should:

1. know how to translate an algorithm into a high-level program; and,
2. understand how to employ techniques to successfully execute a program.

	SPECIFIC OBJECTIVES Students should be able to:	CONTENT
WEEK 1	Distinguish between low-level and high-level programming languages;	Low-level language (Machine or Assembly). High-level language (For example, Visual Basic, Pascal, C).
WEEK 2	Describe the sequence of steps in implementing a program;	Steps in implementing a program: (a) create source code; (b) translate and/or link (on some systems this step is transparent to users); (c) execute/run program; and, (d) maintain program.
WEEK 3	Perform checks and tests on programs to verify correctness;	Errors: syntax, logic, runtime. Testing (test data). Debugging techniques

WEEK 4	Declare variables and constants using elementary data types;	Data types: integer, real/double/float, character, string and Boolean/logical.
WEEK 5	Translate algorithmic statements into high-level language syntax; and,	Assignment statements; input/output operations using standard input/output (reading data entered via keyboard, displaying data on monitor). Syntax for arithmetic, logic and relational operators.
WEEK 6		Syntax for conditional branching (for example, if-then, if-then-else, nested if-thenelse or case).
WEEK 7		Syntax for Iteration (Loops): for, while, repeat.
WEEK 8	Effectively document programs	Importance of documentation. Features of internal documentation (use of mnemonic, variable names, use of comments, indentation, effective use of white space). Features of external documentation (user manual).
WEEK 9	SBA	
WEEK 10	SBA	
WEEK 11	EXAMS	
WEEK 12	EXAMS	
WEEK 13	EXAMS	