



Dubai International Private School -Br

DIPS, in partnership with parents and community, strives to ensure all students are digitally literate, lifelong learners, productive citizens and nurture their well-being in an inclusive learning environment.



Computer Department

Semester: 1

2024 – 2025

Grade Level	8	Subject: Computer - Practical		
Teacher(s) Name	Mr. Nader Madi			
Textbook	DigiPro (Programming and Artificial Intelligence)			
Week #	Dates		Lesson Title / Pages	CCSS / NGSS Code
1	26 Aug	30 Aug	<ul style="list-style-type: none"> Use print function in Python Create a simple program that outputs texts on the console. Save a program. 	2-AP-11 Create clearly named variables that represent different data types and perform operations on their values.
2	2 Sept	6 Sept	<ul style="list-style-type: none"> Use variables. Receive input from the user. Explore data types. Assign values to a variable. Learn variable naming conventions. 	2-AP-11 Create clearly named variables that represent different data types and perform operations on their values.
3	9 Sept	13 Sept	<ul style="list-style-type: none"> Use different operators in Python. Understand the order of operation. Create a flowchart. Utilize PEMDAS rule. Compare two fractions using comparison operators. 	2-AP-10 Use flowcharts and/or pseudocode to address complex problems as algorithms.
4	16 Sept	20 Sept	<ul style="list-style-type: none"> Control the flow of Python code based on conditions. Use if and if-else statements. Round off the number to its nearest 10s. 	2-AP-12 Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.
5	23 Sept	27 Sept	<ul style="list-style-type: none"> Use if-elif statements. Apply Boolean variables and logical operators in conditions. Utilize logical operators with conditional statements. 	2-AP-12 Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.
6	30 Sept	4 Oct	<ul style="list-style-type: none"> Access string characters. Use and modify strings. Format strings. Define a string. 	2-AP-11 Create clearly named variables that represent different data types and perform operations on their values.



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			<ul style="list-style-type: none"> Format a string using 'format()' method and '%' operator. Work on strings with in-built methods and operators. Utilize the methods to modify a single string. Practical 1 	
7	7 Oct	11 Oct	<ul style="list-style-type: none"> Use lists to store ordered groups of data. Modify lists using built-in functions. Explore examples of programs with lists Modify and sort lists. Use list functions in a Python program 	2-AP-12 Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.
8	14 Oct	18 Oct	<ul style="list-style-type: none"> Identify common mistakes in coding. Debug the programs. Identify syntax error, type error, value error, index error and name error in different programs <ul style="list-style-type: none"> Identify the errors in a program and debug it 	2-AP-12 Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.
9	21 Oct	25 Oct	<ul style="list-style-type: none"> Work with for loop Use range() function. Explore 'in' operator. Demonstrate nested loops. Display using end parameter of print() function. Use a 'for' loop to repeat the instructions. Iterate over a sequence of numbers using range() function 	2-AP-12 Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.
10	28 Oct	1 Nov	<ul style="list-style-type: none"> Use while loop. Use a 'while' loop to add a condition that allows the user to 	2-AP-12 Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.
11	4 Nov	8 Nov	<ul style="list-style-type: none"> continue or stop adding students' details 	6-8.CT.d.4 Implement problem solutions using a programming language, including all the following: looping behavior, conditional statements, expressions, variables, and functions.
12	11 Nov	15 Nov	<ul style="list-style-type: none"> Use built-in functions. 	6-8.CT.d.4 Implement problem solutions using a programming language, including all the following: looping behavior, conditional statements, expressions, variables, and functions.



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13	18 Nov	22 Nov	<ul style="list-style-type: none"> Create user-defined functions. 	<p>6-8.CT.d.4</p> <p>Implement problem solutions using a programming language, including all the following: looping behavior, conditional statements, expressions, variables, and functions.</p>
14	25 Nov	29 Nov	<ul style="list-style-type: none"> Identify the differences among functions with no arguments, 	<p>6-8.CT.d.4</p> <p>Implement problem solutions using a programming language, including all the following: looping behavior, conditional statements, expressions, variables, and functions.</p>
15	2 Dec	6 Dec	<ul style="list-style-type: none"> Functions with arguments, and functions with return values Sort a list using the built-in function. 	<p>6-8.CT.e.1</p> <p>Create a model of a real-world system and explain why some details, features and behaviors were required in the model and why some could be ignored.</p>
16	9 Dec	13 Dec	<ul style="list-style-type: none"> Demonstrate the use of the Text-to-Speech and Speech-to-Text component in Thinkable. Create a Speech Recognition application. 	<p>6-8.CT.e.1</p> <p>Create a model of a real-world system and explain why some details, features and behaviors were required in the model and why some could be ignored.</p>
17	6 Jan	10 Jan	<ul style="list-style-type: none"> Program the app to recognize the user's speech and repeat it. Program the app to convert text to speech. Practical 2 	<p>6-8.CT.e.1</p> <p>Create a model of a real-world system and explain why some details, features and behaviors were required in the model and why some could be ignored.</p>
18	13 Jan	17 Jan	Final Exams	
19	20 Jan	24 Jan	Final Exams	