

CURRICULUM INTENT

YEAR 7

The Computing department intent to develop a curriculum enriched with real life scenarios and situations that taps into individual student's imagination, so as to ignite curiosity and sustain engagement. Our curriculum covers aspects of modern technology, real life modelling, abstract thinking and logical problem solving. We aim to develop independent learners who are confident with the safe use of technology, but is also mindful of its environmental, legal, cultural and ethical impact. The breath of our curriculum will allow students to become critical and logical thinkers, who are able to evaluate and decompose computational problems, then have the confidence to collaboratively provide a solution. We are committed to equip learners with character and transferable skills which they can apply in their studies, future careers and society as a whole.

AGE EXPECTED AND WORKING IN GREATER DEPTH

YEAR 7

	KNOWLEDGE	SKILLS	UNDERSTANDING	ASSESSMENT
	The ideas, concepts, dates, times and other details that student will be able to recall.	The ways in which a student will be expected to apply their knowledge.	The depth in which a student understands and is able to articulate their ideas.	Details of hinge assignments and topics covered by two summative assessments.

AGE EXPECTED STANDARD - YEAR 7

	KNOWLEDGE	SKILLS	UNDERSTANDING	ASSESSMENT
	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Know how to keep their identity and login details private - Know some input and output devices used in a computer system. - Know the difference between application software and operating system. - Know some Ethical, legal, environmental and cultural concern. - Know how to use the interface of scratch to create a simple game with a built in sprite. - Know how to enter data within a spreadsheet. - Know how to write simple formula using cell referencing. - Know how to create a simple pie chart. 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Log on to the computer securely and successfully. - Able to identify some input and output devices. - Give an example of Application software and operating system. - Identify and explain a ELCE concern. - Develop a simple game with sprite movement and control. - Able to enter and format data as currency and date/time. - Can enter the correct operators and cell referencing to add, subtract and multiply cells. - Create a simple graph with relevant data. 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Understand the importance of being safe online and on the school network. - Understand the different functions of input, output and storage devices. - Understand the reasons for ELCE concerns. - Understand how to perform calculations in spreadsheet. - Understand how to create graphs in spreadsheet. - Understand how to use the mouse, keyboard, scripts and sprites to coordinate movement in scratch. 	<p>HINGE ASSIGNMENT:</p> <ul style="list-style-type: none"> - Unit 1: Computer System Vocabulary recall quiz in starter and or plenary to check for knowledge and understanding. - Unit 2: Game Development in Scratch Vocabulary recall quiz in starter and or plenary to check for knowledge and understanding. - Unit 3: Data Processing Vocabulary recall quiz in starter and or plenary to check for knowledge and understanding. <p>SUMMATIVE ASSESSMENT 1</p> <ul style="list-style-type: none"> - Unit 1: Computer System end of Unit Progress Review Assessment on the Hardware, Software,

WORKING IN GREATER DEPTH – YEAR 7

	KNOWLEDGE	SKILLS	UNDERSTANDING	
	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Know how to use privacy settings on their personal computer and social media. - Know how to use advanced techniques in scratch to create an effective game. - Use functions in spreadsheet to calculate data. - Know how to create and label graphs. 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Explain how to configure settings on their personal computer and social media accounts. - Write a detailed project brief for a game. - Draw a sprite in scratch and use axis to coordinate movement. - Use SUM and AVERAGE functions in Spreadsheet. - Label the x and y axis. 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Understand how to make configuration settings to keep identify and files safe. - Understand the importance of using a project brief to guide project outcome. - Understand how the x and y axis works in coordinating movement in Scratch. - Understand the reasons and logic behind using the SUM and AVERAGE function. - Understand how to write the SUM and AVERAGE function in calculating a set of data. - Understand how to label the x and y axis. 	<p>Memory and ELCE. It contains multiple choice and short answer questions.</p> <ul style="list-style-type: none"> - Unit 2: The Scratch Project is part of the end of Unit Progress Review Assessment with a written test on the using scratch scripts and interface. It contains multiple choice and short answer questions. - Unit 3: The spreadsheet Project is part of the end of Unit Progress Review Assessment with a written test on Formula, functions and formatting in Spreadsheet. It contains multiple choice and short answer questions.

CURRICULUM INTENT FOR YEAR GROUP

YEAR 8

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AGE EXPECTED STANDARD - YEAR 8

	KNOWLEDGE	SKILLS	UNDERSTANDING	ASSESSMENT
	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Know how to add table and modify backgrounds on a web page in Dreamweaver. - Know how to resize images in Photoshop. - Know how to create buttons and hyperlink in Dreamweaver. - Know how to use bubble sort to compare items in a list. - Know the symbols requires to draw a flowchart. - Know the syntax requires to write print and assignment statements. 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Create a table, add background colour, insert and a line text. - Use Photoshop to edit image taken from the internet, then insert the image into a webpage. - Create hyperlink buttons and insert hyperlink in Dreamweaver. - Draw flow charts to breakdown problems and predict solutions. - Use of bubble sort to compare items in a list. - Write simple print statement. - Write solution to problem solving using assignment of variables and constants. 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Understand how to modify and format a webpage in Dreamweaver. - Understand how to edit images in Photoshop. - Understand how to create buttons and hyperlink in Dreamweaver. - Understand how to use bubble sort to compare pairs in a list. - Understand how to write print and assignment statements in Python. 	<p>HINGE ASSIGNMENT:</p> <ul style="list-style-type: none"> - Unit 4: Website Development Vocabulary recall quiz in starter and or plenary to check for knowledge and understanding. - Unit 5: Algorithm Vocabulary recall quiz in starter and or plenary to check for knowledge and understanding. - Unit 6: Introduction to Python Programming 1 Vocabulary recall quiz in starter and or plenary to check for knowledge and understanding. <p>SUMMATIVE ASSESSMENT 1</p> <ul style="list-style-type: none"> - Unit 4: The Website Project is a part of the end of Unit Progress Review Assessment with a written test on the features of a website. It contains

WORKING IN GREATER DEPTH – YEAR 8

KNOWLEDGE	SKILLS	UNDERSTANDING
<p>STUDENTS...</p> <ul style="list-style-type: none"> - Know how to merge table cells in Dreamweaver. - Know how to change sizing and pixels in Photoshop. - Know the tools required to draw buttons in Photoshop. - Know how to write pseudocode. - Know how to carry out binary search. - Know how to use selection statements in Python. 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Able to merge table cells in Dreamweaver to achieve a logical layout of text and images. - Use Photoshop to edit images taken from the internet, then insert the image into a webpage. - Design buttons in Photoshop and use them within Dreamweaver to create hyperlinks. - Be able to save a video as MP4 and use in website. - Write pseudocode algorithm to represent real life problems. - Use binary search to search through a list. - Use of IF and if-else statement to write programming solutions. 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Understand how to merge table cells in Dreamweaver. - Understand how pixels affect the quality of the image. - Understand how to convert videos from other formats into MP4. - Understand how to use selection statements in Python.

multiple choice and short answer questions.

- **Unit 5:** The Algorithm end of unit progress review assessment is a written test on computational thinking. Pseudocode, flow charts, searching and sorting. contains multiple choice and short answer questions.

- **Unit 6:** The Introduction to Python Programming 1 end of unit progress review assessment is a written test on Python Syntax, short codes and analysis of solutions to problems. It contains multiple choice and short answer questions.

CURRICULUM INTENT FOR YEAR GROUP

YEAR 9

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AGE EXPECTED STANDARD - YEAR 9

	KNOWLEDGE	SKILLS	UNDERSTANDING	ASSESSMENT
	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Know how to draw logic gates. - Know how to write if statement syntax. - Know how to write FOR loop syntax. - Know how to create tables in Microsoft Access using wizard. - Know the steps require to import data from excel into access. - Know how to carry out search in access using the search wizard. - Know unit measurement 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Draw AND, NOT and OR Logic gate. - Write programming solutions using conditional statements. - Write programming solution using FOR loops. - Create a table in Microsoft Access to store records using wizard. - Import and use data from other application. - Carry out search in database using search wizards. - Identify units within data. 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Understand the difference between AND, NOT and OR. - Understand the key techniques for computational thinking. - Understand how to write the FOR loop syntax in Python. - Understand how to import data from excel into access. - Understand how to search for records. - Understand the difference in the unit measurement. 	<p>HINGE ASSIGNMENT:</p> <ul style="list-style-type: none"> - Unit 4: Data Representation Vocabulary recall quiz in starter and or plenary to check for knowledge and understanding. - Unit 5: Database Development Vocabulary recall quiz in starter and or plenary to check for knowledge and understanding. - Unit 6: Python Programming 2 Vocabulary recall quiz in starter and or plenary to check for knowledge and understanding. <p>SUMMATIVE ASSESSMENT 1</p> <ul style="list-style-type: none"> - Unit 7: The Data Representation end of unit progress review

WORKING IN GREATER DEPTH – YEAR 9

KNOWLEDGE	SKILLS	UNDERSTANDING
<p>STUDENTS...</p> <ul style="list-style-type: none"> - Know how the input of AND, OR and NOT gate affects the output of each gate in the truth table. - Know how to write WHILE loop syntax in python. - Know how to write case statement in python. - Know how to create tables in access. - Know how to set validation in Microsoft access. - Know how to write search parameters in Microsoft access. - Know how to convert data from binary to denary. 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Complete AND, NOT, and OR Truth table - Write programming solutions using the while loop. - Create tables in Microsoft Access in design view with assignment of relevant data types. - Write programming solutions using case statement in python. - Assign validation to prevent the input of errors in Microsoft Access. - Make changes to imported data fields to validate errors. - Carry out search in database by designing queries using parameters. - Converting data in Binary to denary 	<p>STUDENTS...</p> <ul style="list-style-type: none"> - Understand how binary inputs and output works in order to complete a truth table. - Understand how to design tables in access. - Understand how to write case statement syntax in Python - Understand how to assign validation to particular fields. - Understand how write parameter in queries. - Understand how to convert data from binary to denary.

assessment is a written test seeking to examine knowledge and understanding of Logic gates, computational units and Binary. It contains multiple choice and short answer questions.

- **Unit 8:** The Database Development end of unit progress review assessment is a written test seeking to examine knowledge and understanding in basic database development. It contains multiple choice, short answer questions and a practical element of searching a database in access, validating fields and changing datatypes of individual fields.

- **Unit 9:** The Python Programming 2 end of unit progress review assessment is a written test on Python Syntax, short codes and analysis and recommendations of solutions to problems. It contains multiple choice and short answer questions.