Newport Girls' High School **Learning Overview**

Subject:	Computer Science	**Lead Teacher:**	Mr Ley	**Year:**	9

Curriculum organisation

Students are taught in option groups of around 20 for 2 hours per week, each with a computer to use.

Overview of Topics & Key Information

Term	Unit(s) of Work	Key Enquiry Questions	Key Content/ Terminology	Skills developed	How will your child be learning?
Autumn Term	9.1 Python	• What should be the subject of my programming challenge? • What are the sub tasks of the challenge? • How do I write up my project? • What data types do I need to use? • How do I program if statements? • What loops do I need?	• Abstraction • Decomposition • Data types • Assignment • Selection • Iteration	Basic programming skills: • Assignment • Selection • Iteration • Sequencing	By developing a teacher lead program; Rock, Paper, Scissors, and applying the skills to their chosen program.
	9.2 VB and Structured Programming	• How do I setup Visual Studio? • How do I create a sub routine? • How do I create a function? • How do I use parameters? • How do I return a value in a function?	• Structured Programming • Sub Routines • Functions • Parameters • Returning data	Advanced programming skills: • sub routines and functions • Basic programming skills:	By changing the previous program; into VB and into Structured programming. Then applying the skills to their chosen program.
Spring Term	9.3 VB Forms	• How do I program in VB windows forms? • How do I create other objects? • How do I change the properties of the objects?	• Objects • Properties • Values • Sub routine • Function	Advanced skills: • Creating Forms and other objects • Manipulating properties • Sub routines and functions	By developing a teacher lead program; Maze game.
	9.4 DB and Web 2.0 Technologies	• What are Web 2.0 technologies? • What should I do my survey on? • What are my hypotheses for my survey? • How do I setup an online form? • How do I import into a database? • How do I query the database?	• Export • Import • Database • Query • Select • Sort	• Data Handling • Creating a Database • Querying a database	By setting up an online survey, importing the results into a single table database and creating queries to prove if the survey hypotheses were true or not
Summer Term	GCSE VB Console Programming	• What programming is needed for the GCSE paper 1	• Abstraction • Decomposition • Data types • Assignment • Selection • Iteration	Basic programming skills: • Assignment • Selection • Iteration • Sequencing	By programming in VB Console Apps; focusing on tasks that are the subject of GCSE paper 1 questions.

Equipment needed for lessons	How will learning and progress be assessed?
• Windows Personal Computer (provided)	• Peer and self-assessment • End of topic assessments • Whole School assessment week (May)

Extension & Enrichment opportunities	What can you do to support your child?
• Coding club and Digital Leaders (club) • Computer rooms open most lunchtimes • National Competitions (BEBRAS)	• Ensure there are digital resources they can use. (A normal windows PC is ideal). • Get your daughter to help you with digital tasks.

If you have any questions about this Learning Overview, please contact the named Teacher above.