COMPUTATIONAL THINKING (CT) CURRICULUM STATEMENT

Computational Thinking focusses on developing student confidence and resilience when tackling problems using technology. Computational Thinking is the fundamental stages of creativity. It is the bedrock of the CT curriculum at The Trafalgar School at Downton because it develops confidence through a rigid and accessible framework. The CT department will be successful when students can recognise a problem and have the skills and competencies to solve it using their knowledge of technology such that this confidence then develops resilience when facing new and potentially difficult challenges throughout their life.

CURRICULUM INTENT – *CURRICULUM IMPACT

a. Students will learn how to program a computer system using graphical and text based computer languages *so that* ***they are able to make a computer system solve problems for them.**

b. Students will learn how to clearly describe their ideas as algorithms *so that* ***they can communicate those ideas unambiguously with others.**

c. Students will understand how computer systems represent, store and communicate information around the world *so that* ***they can access new and growing industries that use computer technology.**

d. Students will learn how computer technology can be used maliciously *so that* ***they can better protect themselves.**

CURRICULUM IMPLEMENTATION (SEQUENCING)

Terms	1	2	3	4	5	6
Yr7 Units	**eSafety & essential digital literacy**	**Problem solving & coding basics**	**Data science & spreadsheets**	**Computer game coding**	**Problem solving & coding basics**	**Physical computing & introduction to Python**
Key learning	#KNOWIT Knowing the dangers and learning how to stay safe online.	#CODEQ Learning and applying the x4 principles of coding using Scratch.	#THINKCT Essentially learning how to manipulate and graphically display data using spreadsheets.	#CODEQ Developing previous Scratch coding skills to create computer games.	#CODEQ Learning and applying the x4 principles of coding using Scratch.	#CODEQ Learning how to program microcontrollers and introducing the text based language, Python.
Assessment	Online assessment on eSafety knowledge	Online assessment & classroom assessment of coding challenges	Assessment of spreadsheet skills	Online assessment & classroom assessment of coding challenges	Online assessment & classroom assessment of coding challenges	Online assessment & classroom assessment of coding challenges
Yr8 Units	**eSafety & essential digital literacy**	**Problem solving & Python coding**	**Digital literacy**	**Computer systems**	**Data science & spreadsheets**	**Algorithms**
Key learning	#KNOWIT Recapping the dangers and learning how to stay safe online.	#CODEQ Developing previous Python coding knowledge to create readable, maintainable code.	#KNOWIT Understand how the World Wide Web can be used to influence opinion.	#KNOWIT Learning how computer systems are made up of switches.	#THINKCT Essentially learning how to manipulate and graphically display data using spreadsheets.	#KNOWIT Learning how to describe solutions using structured English and flowcharts.
Assessment	Online assessment on eSafety knowledge	Online assessment & classroom assessment of coding challenges	Classroom discussion and online assessment	Online assessment	Assessment of spreadsheet skills	Online assessment & assessment of classroom challenges
Yr9 Units	**Cyber security**	**Data representation in a binary world**	**Computer systems**	**Vector animation**	**Web design**	**Data science**
Key learning	#KNOWIT Understanding, through practice, how computer systems are vulnerable to attack.	#KNOWIT Understanding how digital computers encode the world into binary (1's and 0's).	#KNOWIT Developing previous understanding on how computer systems are made.	#KNOWIT Learning how to create vector animations using an industry recognised tool, Blender.	#CODEQ Learning how to design and develop practical, useful and responsive modern websites.	#THINKCT Developing previous data science & spreadsheet skills to solve hypotheses.
Assessment	Classroom practical activities	Online assessment	Online assessment	Online assessment & assessment of classroom challenges	Online assessment & assessment of classroom challenges	Online assessment & assessment of classroom challenges

Terms	1	2	3	4	5	6
Yr10 Units	**Cyber security & data representation**	**Networks & networking**	**Ethical, cultural & environmental impact of computing**	**Software & common algorithms**	**Robust programming**	**NEA**
Key learning	#KNOWIT Developing previous understanding, through practice, how computer systems are vulnerable to attack and how to create policy to protect against vulnerabilities.	#KNOWIT Understanding how networks are useful and vulnerable. How they are designed and created. How data is sent across them.	#KNOWIT Understanding how computers have impacted our world and society in three specific areas: ethical, cultural and environmental.	#KNOWIT: A split term that looks at the benefits and the drawbacks of open source v proprietary software, then studying how search and sort algorithms can do the same job, but in different ways resulting in different costs.	#CODEQ Developing previous Python coding skills, students look at writing code that is readable, maintainable and robust.	#CODEQ This term is dedicated to completing the Non Examined Assessment (coursework) part of the GCSE.
Assessment	Classroom challenges, online assessment and exam questioning	Classroom challenges, online assessment and exam questioning	Classroom challenges, online assessment and exam questioning	Classroom challenges, online assessment and exam questioning	Online assessment & classroom assessment of coding challenges	10 hour GCSE assessed work
Yr11 Units	**Data representation**	**Common algorithms & networking**	**Computer systems, ethics, & software**	**General revision & exam practice**		
Key learning	#REVISE Developing previous understanding of how computer encode the world in binary with emphasis on exam technique.	#REVISE Developing previous understanding of the x5 common algorithms and digital network with emphasis on exam technique.	#REVISE Developing previous understanding of how computers are made, the impact of computers on society and types of software with emphasis on exam technique.	#MASTERY General revision of all topics with heavy emphasis on exam practice leading up to the GCSE exam.		
Assessment	Online assessment & classroom assessment of coding challenges	Online assessment & classroom assessment of coding challenges	Online assessment & classroom assessment of coding challenges	Online assessment & classroom assessment of coding challenges		

CURRICULUM PROGRESSION MAPPING

COMPUTATIONAL THINKING (CT) - CORE KNOWLEDGE & SKILLS - PROGRESSION MAPPING						
CONCEPT	**INTERVENTION**	**EMERGING**	**DEVELOPING**	**MASTERING**	**EXTENDING**	**BEYOND**
Communication of concepts and solutions	Students understand that we live in algorithmic times and that solutions can be written down in a way that others can replicate.	Students express a simple sequence using structured English and simple flowchart symbols.	Students express and understand a solution using loops and decision making in structured English and simple flowchart symbols.	Students express and understand a solution with loops and decision making in structured English, flowchart symbols and pseudocode.	Students unambiguously express and understand a solution with loops and decision making in structured English, flowchart symbols and pseudocode.	Students unambiguously express and understand a solution of increased sophistication with loops and decision making in structured English, flowcharts and pseudocode.
Developing coded solutions	Students understand that computers can follow instructions that must follow specific grammar and spelling rules otherwise errors will occur.	Students understand the principles of coding using a block programming language: • Variables • Input/Output • Loops • Decision making At this stage students should be able to copy code with support. Students should be able to express a solution to a simple problem using Structured English or flowcharts.	Students understand that code should be written to be readable and maintainable. Those rules are: • Name all variables, sprites and sub-routines appropriately • Convert all repeated instructions into loops At this stage students should be able to copy code from an algorithm or pseudocode accurately without support. Students should be able to analyse a given simple problem and: • Break a simple problem down into sub-problems	Students understand that code should be written to be readable and maintainable. Those rules are: • Name all variables, sprites and sub-routines appropriately • Convert all repeated instructions into loops • Convert repeated functionality into sub-routines • Comment code to enable 3rd party to understand it At this stage, students should be able to extend/modify existing code.	Students understand that code should be written to be readable and maintainable. Those rules are: • Name all variables, sprites and sub-routines appropriately • Convert all repeated instructions into loops • Convert repeated functionality into sub-routines • Comment code to enable 3rd party to understand it At this stage, students should be able to extend/modify existing code and add their own coded ideas,	Students understand that code should be written to be readable and maintainable. Those rules are: • Name all variables, sprites and sub-routines appropriately • Convert all repeated instructions into loops • Convert repeated functionality into sub-routines • Comment code to enable 3rd party to understand it At this stage, students should be able to extend/modify existing code and add their own coded ideas.

			• Express a solution in terms of a diagram or flowchart or structured English	Students should be able to analyse a given simple problem and: • Abstract a simple problem removing unnecessary details • Break a simple problem down into sub-problems • Express a solution in terms of a diagram or flowchart, structured English or pseudocode	albeit not to any depth or sophistication. Students should be able to analyse a given **complex** problem and: • Abstract a complex problem removing unnecessary details • Break a complex problem down into sub-problems • Express a solution in terms of a diagram or flowchart, structured English or pseudocode	This code will be **sophisticated** and **complex**. Students should be able to identify and analyse a **complex** problem and: • Abstract a complex problem removing unnecessary details • Break a complex problem down into sub-problems • Express a solution in terms of a diagram or flowchart, structured English or pseudocode
Representing, storing and communicating information	Students will start to understand the concept of binary as a numbering system that comprises of 1 and 0.	Students understand that computers are essentially made up of switches that can be on or off. This is the basis of how all data is stored: 1 and 0. Therefore the world needs to be encoded in terms of 1 and 0.	Students will understand the concept of binary and that computers encode the world using binary, in particular images as bitmaps and sound as samples. Students will also understand the base-16 (hexadecimal) number system and how to convert between base-2, 10 and 16.	Students will understand the concept of binary and that computers encode the world using binary, in particular images as bitmaps and vectors, sound as samples and MIDI and characters in terms of ASCII and Unicode. Students will also understand the base-16 (hexadecimal) number system and how to convert between base-2, 10 and 16. Students **should** be aware of the relative merits or each technique and be aware of the space implications of files created using these techniques. Students will be aware of the concept of lossy and lossless compression and that compression seeks to reduce binary file sizes.	Students will understand the concept of binary and that computers encode the world using binary, in particular images as bitmaps and vectors, sound as samples and MIDI and characters in terms of ASCII and Unicode. Students will be comfortable with the base-16 (hexadecimal) number system and how to convert between base-2, 10 and 16. Students will be **fully** aware of the relative merits of each technique and be **fully** aware of the space implications of files created using these techniques and how to calculate space requirements based on a given usage condition. Students will be understand how lossy and lossless compression works on reducing binary file sizes and which compression type is required in a given situation.	Students will understand the concept of binary and that computers encode the world using binary, in particular images as bitmaps and vectors, sound as samples and MIDI and characters in terms of ASCII and Unicode. Students will be comfortable with the base-16 (hexadecimal) number system and how to convert between base-2, 10 and 16. Students will be **fully** aware of the relative merits of each technique and be **fully** aware of the space implications of files created using these techniques and how to calculate space requirements based on a given usage condition. Students will be understand how lossy and lossless compression works on reducing binary file sizes and which compression type is required in a given situation and **use** compression where necessary.
Safe use ICT	Students will be aware of the dangers of being online and will know 6 simple rules to stay safe online, including phishing, sexting, viruses and account vulnerabilities through hacking.	Students will be aware of the dangers of being online and will know 6 simple rules to stay safe online, including phishing, sexting, viruses and account vulnerabilities through hacking. Students will know the importance of strong passwords and what a strong password is.	Students will be aware of the dangers of being online and will know 6 simple rules to stay safe online, including phishing, sexting, viruses and account vulnerabilities through hacking. Students will be know how to create and use strong passwords in everyday digital life.	Students will be aware of the dangers of being online and will know 6 simple rules to stay safe online, including phishing, sexting, viruses and account vulnerabilities through hacking. Students will be know how to create and use strong passwords in everyday digital life.	Students will be aware of the dangers of being online and will know 6 simple rules to stay safe online, including phishing, sexting, viruses and account vulnerabilities through hacking. Students will be know how to create and use strong passwords in everyday digital life.	Students will be aware of the dangers of being online and will know 6 simple rules to stay safe online, including phishing, sexting, viruses and account vulnerabilities through hacking. Students will be know how to create and use strong passwords in everyday digital life.
Digital networks	Students will know what encoding and signalling is and where it is used in the real world.	Students will be able to encode a simple alphabet in binary and develop a simple protocol to transmit, albeit simplistically, a short message over a distance of 5 meters.	Students will understand the benefits and drawbacks of networking. Students will understand about encoding and signalling and be able to encode and transmit a simple message over a 5 meter distance using a protocol of their own design.	Students will understand the benefits and drawbacks of networking and be able to list a few things that network managers must think about for the network policy document. Students will understand about encoding and signalling and be able to encode and initiate, transmit and	Students will understand the benefits and drawbacks of networking and be able to list the important aspects that network managers must think about for the network policy document including network threats (including threat vectors).	Students will understand the benefits and drawbacks of networking and be able to list the important aspects that network managers must think about for the network policy document including network threats (including threat vectors).

			Students will understand that a digital network is made up of 2 or more nodes and that to communicate protocols are required. They will be aware of the TCP/IP protocol stack and how data must be encapsulated into packets using IP before it can be sent over a network. Students will understand the basics of the Internet and how the Internet is made up of routers.	stop an accurate simple message over distance that is beyond verbal communication using a protocol of their own design. Students will understand that a digital network is made up of 2 or more nodes and that to communicate protocols are required. They will be aware of the TCP/IP protocol stack and how data must be encapsulated into packets using IP before it can be sent over a network. They will understand other common protocols in the stack and what they are used for and explain why the TCP/IP protocol stack was created. Students should be aware of client/server and peer-to-peer networks. Students will understand the basics of the Internet and how the Internet is made up of routers, gateways, switches, DNS and firewalls. They will understand the benefits of the MESH network design. Students will be able to design simple networks taking in to account network performance issues.	Students will understand about encoding and signalling and be able to encode and initiate, transmit and stop an accurate message over distance that is beyond verbal communication using a protocol of their own design. Students will understand that a digital network is made up of 2 or more nodes and that to communicate protocols are required. They will be aware of the TCP/IP protocol stack and how data must be encapsulated into packets using IP before it can be sent over a network. They will understand all other protocols in the TCP/IP stack and what they are used for and explain why the TCP/IP protocol stack was created. Students should be aware of client/server and peer-to-peer networks and explain the advantages and drawbacks of each. Students will understand the basics of the Internet and how the Internet is made up of routers, gateways, switches, DNS and firewalls. They will understand the benefits of the MESH network design. Students will be able to design simple networks, ensuring performance is maximised.	Students will understand about encoding and signalling and be able to encode and initiate, transmit and stop an accurate message over distance that is beyond verbal communication using a protocol of their own design. Students will understand that a digital network is made up of 2 or more nodes and that to communicate protocols are required. They will be aware of the TCP/IP protocol stack and how data must be encapsulated into packets using IP before it can be sent over a network. They will understand all other protocols in the TCP/IP stack and what they are used for and explain why the TCP/IP protocol stack was created. Students should be aware of client/server and peer-to-peer networks and explain **with confidence** the advantages and drawbacks of each. Students will understand the basics of the Internet and how the Internet is made up of routers, gateways, switches, DNS and firewalls. They will understand the benefits of the MESH network design. Students will be able to design simple networks, ensuring performance is maximised. Students will know the specifics of how actual routers and switches are configured. They will be able to design networks with performance in mind and be able to assign IP addresses and subnet masks.
Data science	Students will understand that a spreadsheet can store lists of numbers, perform simple calculations and create graphs.	Students will be able to use a spreadsheet to store and format lists of numbers, perform simple calculations using the SUM() and AVE() functions. Students will be able to sort numbers. Students will be able to create simple graphs that include a title and legend. Students should know what a hypothesis is.	Students will be able to use a spreadsheet to store and format lists of numbers, perform simple data manipulation using the SUM(), AVE(), CONCATENATE() and AVE() functions. Students will be able to sort numbers based on a criteria. Students will be able to assign conditional formatting on data sets based on a criteria. Students should be able to analyse a given simple hypothesis and derive simple questions to ask to collect data which is then stored	Students will be able to use a spreadsheet to store and format lists of numbers, perform data manipulation using the SUM(), AVE(), CONCATENATE() LEFT(), MID(), RIGHT() and AVE() functions. Students will be able to sort numbers based on a criteria. Students will be able to assign conditional formatting on data sets based on a criteria. Students should be able to analyse a given simple hypothesis and derive simple questions to **efficiently collect** data which is	Students will be able to use a spreadsheet to store and format lists of numbers, perform data manipulation using the SUM(), AVE(), CONCATENATE() LEFT(), MID(), RIGHT() and AVE() functions. Students will be able to sort numbers based on **multiple** criteria. Students will be able to assign conditional formatting on data sets based on a **complex** criteria. Students should be able to analyse a given hypothesis and derive questions to **efficiently collect** data which is then stored and manipulated using a spreadsheet.	Students will be able to use a spreadsheet to store and format lists of numbers, perform data manipulation using the SUM(), AVE(), CONCATENATE() LEFT(), MID(), RIGHT() and AVE() functions. Students will be able to sort numbers based on **multiple** criteria. Students will be able to assign conditional formatting on data sets based on a **complex** criteria. Students should be able to analyse a given hypothesis and derive questions to **efficiently collect** data which is then stored and manipulated using a spreadsheet.

			and manipulated using a spreadsheet. Students should be able to create simple graphs that include a title and legend to help solve a given hypothesis. Students should be able to use a graph to solve the hypothesis.	then stored and manipulated using a spreadsheet. Students should be able to create simple graphs that include a title and legend to help solve a given hypothesis. Students should be able to use their graphs to solve the hypothesis and give a reasoned answer based on collected data.	Students should be able to create graphs that include a title and legend to help solve a given hypothesis. Students should be able to use their graphs to solve the hypothesis and give a reasoned answer based on collected data.	Students should be able to create graphs that include a title and legend to help solve a given hypothesis. Students should be able to use their graphs to solve the hypothesis and give a reasoned answer based on collected data. Students should be able to use coded scripts to **automate** any part of the data handling cycle.
Hardware	Students should be aware that computers are made up of switches. They should know that a computer is constructed of a CPU, RAM and peripherals.	Students should be aware that computers are made up of switches and that these are now known as transistors and are very small. They should know that a computer is constructed of a CPU, RAM and peripherals all connected together by a system bus. Students should be aware that a CPU is made up of the logic gates: OR, AND, NOT. Students should be aware that logic can be described in terms of diagrams and truth tables.	Students should be aware that computers are made up of switches and that these are now known as transistors and are very small. They should know that a computer is constructed of a CPU, RAM and peripherals all connected together by a system bus. They should also know that the CPU is made up of common components and registers; MDR, MAR, CIR, CU, ALU, Accumulator, clock. Students should be aware of the fetch/execute cycle. Students should be aware that a CPU is made up of the logic gates: OR, AND, NOT. Students should be aware that logic can be described in terms of diagrams, expressions and truth tables.	Students should be aware that computers are made up of switches and that these are now known as transistors and are very small. They should know that a computer is constructed of a I/O, CPU, RAM, ROM and peripherals all connected together by a system bus. They should also know that the CPU is made up of common components and registers; MDR, MAR, CIR, CU, ALU, Accumulator, clock. Students should be aware of the fetch/execute cycle. Students should be aware that a CPU is made up of the logic gates: OR, AND, NOT. Students should be aware that logic can be described in terms of diagrams, expressions and truth tables and be able to convert simple logic between all three. Students should understand that any source code above generation 1 needs to be translated into machine/object code before it can be understood by a computer. Understand that each CPU can understand a set of instructions. Students need to be aware of the differences between Harvard and Von Neumann architectures and CISC and RISC chips.	Students should be aware that computers are made up of switches (now called transistors which can be 5nm in size). Transistors enable the encoding of data as 1 and 0. They should know how a computer is constructed using a I/O, CPU, RAM, ROM and peripherals all connected together by a system bus. They should also know that the CPU is made up of common components and registers; MDR, MAR, CIR, CU, ALU, Accumulator, clock. Students should be able to explain the fetch/execute cycle. Students should be aware that a CPU is made up of the logic gates: OR, AND, NOT. Students should be aware that logic can be described in terms of diagrams, expressions and truth tables and be able to convert **complex** logic between all three. Students should be able to explain the difference between translation and compilation of source code into object code before it can be understood by a computer. Students should be comfortable with assembly language programs. Understand that each CPU can understand a set of instructions. Students need to be aware of the differences between Harvard and Von Neumann architectures and CISC and RISC chips.	Students should be aware that computers are made up of switches (now called transistors which can be 5nm in size). Transistors enable the encoding of data as 1 and 0. They should know how a computer is constructed using a I/O, CPU, RAM, ROM and peripherals all connected together by a system bus. They should also know that the CPU is made up of common components and registers; MDR, MAR, CIR, CU, ALU, Accumulator, clock. Students should be able to explain the fetch/execute cycle. Students should be aware that a CPU is made up of the logic gates: OR, AND, NOT. Students should be aware that logic can be described in terms of diagrams, expressions and truth tables and be able to convert **complex** logic between all three. Students should be able to explain the difference between translation and compilation of source code into object code before it can be understood by a computer. Students should be **able to write** assembly language programs. Understand that each CPU can understand a set of instructions. Students need to be aware of the differences between Harvard and Von Neumann architectures and explain where each is best suited. Students should be able to explain the advantages and drawbacks of CISC and RISC chips.
Ethical, legal, cultural and environmental use of technology	Students should understand that technology does have an impact on the World. That our society, environment and legal system are affected by technology.	Students should understand that technology does have an impact on the World. That our society, environment and legal system are affected by technology.	Students should understand that technology does have an impact on the World. That our society, environment and legal system are affected by technology. Students should be aware of:	Students need to be able to explain the impact of technology within a given context in the following ways: • Ethical • Cultural	Students need to be able to explain, **with confidence and examples**, the impact of technology within a given context in the following ways: • Ethical	Students need to be able to explain, **with confidence and examples**, the impact of technology **producing a context** themselves, in the following ways:

		Students should be aware of the Data Protection Act and how digital information can be owned by someone.	• The Data Protection Act • The Computer Misuse Act • The Freedom of Information Act Students should know that digital information can be owned by someone and may need to be paid for.	• Legal • Environmental • Privacy Students need to be able to understand the basic concepts of the following technology related legislation: • The Data Protection Act • The Computer Misuse Act • The Copywrite, Designs and Patents Act • The Freedom of Information Act • Creative Commons Licencing Students should be able to attempt to classify what law a given illegal activity would be subject to.	• Cultural • Legal • Environmental • Privacy Students need to be able to explain the following technology related legislation: • The Data Protection Act • The Computer Misuse Act • The Copywrite, Designs and Patents Act • The Freedom of Information Act • Creative Commons Licencing Students should be able to correctly classify what law a given illegal activity would be subject to.	• Ethical • Cultural • Legal • Environmental • Privacy Students need to be able to explain, **with confidence**, the following technology related legislation : • The Data Protection Act • The Computer Misuse Act • The Copywrite, Designs and Patents Act • The Freedom of Information Act • Creative Commons Licencing Students should be able to correctly classify what law a given illegal activity would be subject to and **cite case law examples.**
Digital Literacy	Students should know how to use a specific file system to save and retrieve a file. Students should be aware that 'free websites' are not necessarily free but information collected is then used in personalised advertising.	Students should be able to navigate and search a specific file system to save or retrieve a specific file. Students should be aware that it is important to give files appropriate filenames in order to better organise our files. Students should be aware of concepts such as: • Fake news • How data is collected about us and used to create a picture of how we live • Deep fakes • Trolling	Students should be able to navigate and search any file system to save or retrieve a specific file. Students should be aware that it is important to give files appropriate filenames and to store files in appropriate folder structures in order to better organise our files. Students should be understand how the following concepts can affect them: • Fake news • How data is collected about us and used to create a picture of how we live • Deep fakes • Trolling	Students should be able to navigate and search any file system to save or retrieve a specific file. Students should be aware that it is important to give files appropriate filenames and to store files in appropriate folder structures in order to better organise our files. Students should understand and be able to explain how the following concepts can affect them in a given context: • Fake news • How data is collected about us and used to create a picture of how we live • Deep fakes • Trolling	Students should be able to navigate and search any file system with confidence to save or retrieve a specific file. Students should be aware that it is important to give files appropriate filenames and to store files in appropriate folder structures in order to better organise our files. Students should understand and be able to explain how the following concepts can affect them in a context provided by them: • Fake news • How data is collected about us and used to create a picture of how we live • Deep fakes • Trolling Students should be able to explain how these concepts can affect society.	Students should be able to navigate and search any file system **with confidence** to save or retrieve a specific file. Students should be aware that it is important to give files appropriate filenames and to store files in appropriate folder structures in order to better organise our files. Students should be able to explain **with confidence** how the following concepts can affect them in a context provided by them: • Fake news • How data is collected about us and used to create a picture of how we live • Deep fakes • Trolling Students should be able to explain **with confidence** how these concepts can affect society.

Creative iMedia – Curriculum Statement

Creative iMedia will equip learners with a range of creative media skills and provide opportunities to develop, in context, desirable, transferable skills such as research, planning, and review, working with others and communicating creative concepts effectively. Through the use of these skills, learners will ultimately be creating fit-for-purpose creative media products.

Creative iMedia will also challenge all learners, including high attaining learners, by introducing them to demanding material and techniques; encouraging independence and creativity and providing tasks that engage with the most taxing aspects of the National Curriculum.

CURRICULUM INTENT **– *CURRICULUM IMPACT**

a. Students will learn how to research different forms of media *so that* ***they can better understand the different trends that might affect their Digital Graphics project**
b. Students will learn how to accurately use different pre-production documents *so that* ***they are able to plan for a Digital Graphics project**
c. Students will learn how to use different forms of graphic design programs *so that* ***they are able to create their final Digital Graphics**
d. Students will learn how to review different pieces of media for clear pros and cons *so that* ***they can analyse their own Digital Graphics more precisely**

CURRICULUM IMPLEMENTATION (SEQUENCING)

Terms	1	2	3	4	5	6
Yr10 Units	**Pre-Production Documents**	**Pre-Production Documents – Group based**	**Pre-Production Exam** **Introduction to Digital graphics**	**Image editing software**	**Reviewing Digital Graphics** **Digital Graphics Mock Assessment**	**Digital Graphics Mock Assessment** **Digital Graphics Assessment**
Key learning	#LEARNING: Understanding and creating different documents used in the planning of different types of Digital Graphics.	#LEARNING: Understanding the different aspects of group work and what documents will be needed when planning for different projects	Preparing for Pre-Production Exam #LEARNING: Understand and research the different types of Digital Graphics in industry and what type of technical data images have.	#LEARNING: Developing new skills with image editing software with a focus on layering different images and retouching damaged or pixelated images.	#LEARNING:	#CODEQ This term is dedicated to completing the Non Examined Assessment (coursework) part of the GCSE.
Assessment	Weekly document creation and assessment.	Weekly document creation and **10 hour group project assessment.**	**GCSE Exam** Classroom tasks with online assessment.	Weekly Client style projects and assessments.	10 hours Mock assessment.	10 hours Mock assessment. 10 hour GCSE assessed work
Yr11 Units	**Data representation**	**Common algorithms & networking**	**Computer systems, ethics, & software**	**General revision & exam practice**		
Key learning	#REVISE Developing previous understanding of how computer encode the world in binary with emphasis on exam technique.	#REVISE Developing previous understanding of the x5 common algorithms and digital network with emphasis on exam technique.	#REVISE Developing previous understanding of how computers are made, the impact of computers on society and types of software with emphasis on exam technique.	#MASTERY General revision of all topics with heavy emphasis on exam practice leading up to the GCSE exam.		
Assessment	Online assessment & classroom assessment of coding challenges	Online assessment & classroom assessment of coding challenges	Online assessment & classroom assessment of coding challenges	Online assessment & classroom assessment of coding challenges		