Curriculum Scheme

Computing

The Eastwood Academy

Believe, Succeed, Together

Curriculum Scheme

The fundamental aim of a curriculum scheme is to coherently plan and sequence the cumulative acquisition of subject content to facilitate retention, recall and application.

CREATE Curriculum

Curriculum schemes are underpinned by the CREATE Curriculum which brings together the key interrelated aspects of curriculum structure, design and delivery into a single coherent entity.

CREATE Element	Description
Challenge	Stretch and extend learning to foster a deeper understanding beyond the content of the National Curriculum and GCSE specifications.
Regulate	Plan, monitor and evaluate specific aspects of learning to foster greater responsibility and independence – DRAFT.
Enhance	Consolidate and develop transferable literacy and numeracy skills.
Adapt and Assess	Adapt teaching to take account of different pupils' needs and provide an opportunity for all pupils to achieve. Undertake regular in-class assessment to monitor strengths and highlight specific areas of improvement.
Target	Consolidate identified strengths and develop and overcome areas of improvement.
Enrich	Enhance physical and emotional wellbeing; develop social, spiritual, moral and cultural capital; and provide opportunities and experiences to successfully transition to the next stage from secondary education.

Curriculum Allocation

Year Group	7	8	9	10	11
Number of Lessons	1	1	1	3	3

Curriculum Intent

Computing is a National Curriculum foundation subject – refer to National Curriculum Computing Programmes of Study

Key Stage 1

Learning Intentions
• Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions. • Create and debug simple programs. • Use logical reasoning to predict the behaviour of simple programs. • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Recognise common uses of information technology beyond school. • Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Key Stage 2

Learning Intentions
• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration. • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Key Stage 3

Learning Intentions
• Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems. • understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem. • Use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions. • Understand simple Boolean logic e.g. AND, OR and NOT and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers e.g. binary addition, and conversion between binary and decimal. • Understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems. • Understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits. • Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. • Create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability. • Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns.

Key Stage 4

Learning Intentions
• Develop their capability, creativity and knowledge in computer science, digital media and information technology. • Develop and apply their analytic, problem-solving, design, and computational thinking skills. • Understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns.

Key Stage 4

Computer Science is a GCSE option subject - Pearson Edexcel 1CP2

Learning Intentions
• Understand and apply the fundamental principles and concepts of computer science, including abstraction, decomposition, logic, algorithms, and data representation. • Analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs • Think creatively, innovatively, analytically, logically and critically. • Understand the components that make up digital systems and how they communicate with one another and with other systems. • Understand the impact of digital technology on wider society, including issues of privacy and cybersecurity. • Apply mathematical skills relevant to computer science.

IMedia is a vocational option subject - OCR Level 2 J834

Learning Intentions
• Understand and apply the fundamental principles and concepts of digital media including factors that influence product design, use of media codes and conventions, pre-production planning techniques, legal issues and creation/publishing/distribution considerations. • Develop learning and practical skills that can be applied to real-life contexts and work situations. • Think creatively, innovatively, analytically, logically and critically. • Develop independence and confidence in using skills that would be relevant to the media industry and more widely. • Design, plan, create and review digital media products which are fit for purpose meeting both client and target audience requirements.

Curriculum Assessment

Key Stage 3 Indicative Competencies

Grade	Careers, Society and E-safety	Application and Problem-Solving	Understanding Client Requirements	Creativity Graphic Design / Game Design / Web Design
8+	Fully developed awareness of technology careers, e-safety and transferrable skills, awareness of impact computing has on society	Demonstrate advanced real-world problems, use logical reasoning, binary and Boolean logic	Fully understand and communication of the client requirements can provide fully complete design to a solution	Fully develop creative media-based projects. To include graphic design / game design / web design using all pre-production documents.
7	Developed awareness of technology careers, e-safety and transferrable skills, awareness of impact computing has on society.	Detailed advanced real-world problems, use logical reasoning, binary and Boolean logic	Developed understanding and communication of the client requirements can provide fully complete design to a solution	Developed creative media-based projects. To include graphic design / game design / web design using all pre-production documents.
6	Sound awareness of technology careers, e-safety and transferrable skills, awareness of impact computing has on society.	Sound advanced real-world problems, use logical reasoning, binary and Boolean logic	Sound understanding and communication of the client requirements can provide complete design to a solution	Sound a creative media-based projects. To include graphic design / game design / web design using all pre-production documents.
5	An awareness of technology careers, e-safety and transferrable skills, awareness of impact computing has on society.	Some advanced computing skills, real world problems, use logical reasoning, binary and Boolean logic	An understanding of the client requirements can provide sufficient design to a solution.	Most requirement of a creative media-based projects. To include graphic design / game design / web design using sufficient pre-production documents.
4	Developing awareness of technology careers, e-safety and transferrable skills, awareness of impact computing has on society.	Developing basic computing skills, real world problems, use logical reasoning, binary and Boolean logic	Developing understanding of the client requirements can provide more design to a solution	Developing creative media-based projects. To include graphic design / game design / web design using most pre-production documents.
3	Emerging awareness of technology careers, e-safety and transferrable skills, awareness of impact computing has on society.	Emerging confidence to log in, access files, create files and save them.	Emerging understanding of the client requirements can provide more design to a solution	Emerging creative media-based projects. To include graphic design / game design / web design using some pre-production documents.
2	Improving awareness of technology careers, e-safety and transferrable skills, awareness of impact computing has on society.	Improving confidence to log in, access files, create files and save them.	Improving understanding of the client requirements can provide some design to a solution	Improving creative media-based projects. To include graphic design / game design / web design using some pre-production documents.
1	Limited awareness of technology careers, e-safety and transferrable skills, awareness of impact computing has on society.	Basic computing skills, can log in, access files, create files and save them.	Basic understanding of the client requirements can provide some design to a solution	Limited creative media-based projects. To include graphic design / game design / web design using some pre-production documents.

Key Stage 4 GCSE Scheme of Assessment

Pearson Edexcel Computer Science Scheme of Assessment and OCR IMedia Scheme of Assessment

Curriculum Overview

Key Stage 3

Year Group	Autumn Term	Spring Term	Summer Term
7	**Topic 1 - Computing at Eastwood Academy** • Using Computers @Eastwood • Basic Computing Skills Workshops • Basic office skills workshops • Office for education • Office for tasks • Office challenge **Topic 2 – Understanding computers** • Elements of a computer • The CPU • Understanding binary • Binary addition • Storage devices • Convergence and new technologies • Assessment	**Topic 3 – Control systems with Flowol** • Flowcharts • Sequencing • Sensors • Subroutines • Actuators • Variable and Assessment **Topic 4 E-Safety topics** • Managing online information	**Topic 4 – Introduction to coding through Kodu** • How programs work • Creating landscapes • Navigation and pathing • Clones and creatables • Page and selections • Game depth and complexity • Assessment
8	**Topic 1 – I-Media Computer Graphics** • Introduction to vector graphics • Bitmap graphics • Conveying meaning through images • Effects and enhancements • Adding text to a graphic image • Assessment and review	**Topic 3 – Sound manipulation in Audacity** • Digitizing sound • Working with sound effects • Listening and planning • Creating an advertisement • Finishing and exporting • Evaluation and assessment	**Topic 5 – End of Year Projects** • Samsung 'Solve for Tomorrow' • Computing – 'Who's the Hacker?' • I-MEDIA – Visit Southend Client Brief

	Topic 2 – Computing – Coding Using Python • Strings and variables • Data types and arithmetic • Selections • Writing algorithms • While loops • Searching Assessment	**Topic 4 -Key Stage 3 E-Safety topics** • Privacy and security	
9	**Topic 1 – Spreadsheet modelling** • Cell references • Simple formulae • Formatting • What if scenarios • SUM,MAX,IF, COUNTIF • Absolute cell referencing • Conditional formatting • Cell naming • Validation • Charting • Simple macros	**Topic 2 -Video** • Introduction to digital video • Planning, scripting and storyboarding • Shooting scenes • Final shot • Editing your movie • Final cut **Topic 4 E-Safety topics** • Copyright and ownership	**Topic 5- HTLM** • HTML • CSS • Design • Development • Creating a web form **Topic 6 – End of year projects** • Creating a website • Web images • Web video • Web sound

Key Stage 4

Year Group	Autumn Term	Spring Term	Summer Term
10 Computing	**Theory** Topic 3 - Computers • Hardware **Programming** • Subprograms	**Theory** Topic 3 - Computers • Software • Programming Languages **Programming** • Text Files	**Theory** Topic 4 - Networks • Networks • Network Security **Programming** • Programming Project
10 Creative iMedia	R093 – Creative IMedia in the media industry. • The media industry • Factors influencing design R094 - Visual identity and digital graphics • Developing visual identity • Planning graphics for products	R093 – Creative IMedia in the media industry. • Pre-production planning • Distribution considerations R094 - Visual identity and digital graphics • Create visual identity and digital graphics	R094 - Visual identity and digital graphics • Developing visual identify • Practical skills - graphic design / vector graphics / bitmap graphics including photography R098-Visual imaging • Planning visual imaging portfolios
11 Computing	**Theory** Topic 5 - Issues and Impact • Environmental • Ethical and Legal • Cybersecurity **Programming** • Paper 2 preparation	**Theory** • Paper 1 preparation **Programming** • Paper 2 preparation	• Revision and GCSE examinations
11 Creative iMedia	R098-Visual imaging • Creating visual imaging portfolios • Review visual imaging portfoli	R093 – Creative IMedia in the media industry. • The media industry • Factors influencing design	R093 – Creative IMedia in the media industry. • Pre-production planning • Distribution considerations

Curriculum Content

Year 7

Topic	Topic 1 - Computing at The Eastwood Academy	C	R	E	A	T	E
NC Learning Intention	Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns.						
Lesson Learning Intentions	• Introduction to the subject and the culture we wish to develop • Practice logging on and off the school system • Record password and key details • Introduce the basics system functions, how to save files, access files, locate files, organise files • Introduction to TEAMS how to log In • Record password and key details • Log in to TEAMS independently • Complete and submit a task using TEAMS • E-Safety focus – Managing online information				✓	✓	✓
Lesson Tasks	• Discussion of key expectations and culture • Practice logging on and off • Saving files, Creating folders • How to log in to TEAMS • How to use TEAMS in lessons • E-safety • Pupil led questions/help				✓	✓	✓
Resources	Computer hardware /software/internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 7 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Tier 3-CTRL, ALT, DEL, cloud, e-safety, copyright and ownership, TEAMS, save, save as, Tabs Tier 2 – Document, pathway, account, assignment, folder			✓			✓
Numeracy	• Successfully introduce numbers into secure access to network			✓			✓
Challenge	• Independently navigate network • Independently organise and manage personal resources	✓					✓

Topic	Topic 2 – Understanding Computers	C	R	E	A	T	E
NC Learning Intention	• Understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal • Understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems • Understand how instructions are stored and executed within a computer system • Understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits						
Lesson Learning Intentions	**At the end of this Unit all pupils should be able to:** • Distinguish between hardware and software • Give examples of computer hardware and software • Draw a block diagram showing CPU, input, output and storage devices • Name different types of permanent storage device • Suggest appropriate input and output devices for a simple scenario • Explain what RAM and ROM are used for • Show how numbers and text can be represented in binary • Explain the impact of future technologies **Most pupils will be able to:** • Perform simple binary arithmetic • State strengths and weaknesses of different storage devices • Describe briefly how data is stored on a CD **Some pupils will be able to:** • Identify input and output devices for more complex scenarios • Explain how characters are encoded using the ASCII system • Use an ASCII reference chart to convert a character into binary and its decimal equivalent				✓	✓	✓
Lesson Tasks	• Distinguish between hardware and software, identify input, output and storage devices, name at least five pieces of software, understand what happens at the “Process” stage, suggest appropriate input and output devices for a given scenario. • Draw a block diagram of the main components of a computer: input, processor, output and storage, explain what RAM and ROM are used for, distinguish between main memory and				✓	✓	✓

	permanent storage devices, name the three stages in the Fetch Execute Cycle, define Hz, MHz and GHz and state how these relate to the speed of the processor • State why all data is represented in binary in a computer, define a Bit, Byte, Kb, Mb and Gb, convert decimal (denary) integers to binary numbers, convert binary numbers to decimal (denary) integers, look up from a table the bit pattern for a given character, show how characters can be represented in ASCII • Identify a binary number as odd or even, understand the effect of adding an extra zero to a binary number, add two binary numbers (each no more than eight binary digits) • State the typical capacities, strengths and weaknesses of different storage devices, describe how data is stored on a CD, describe how 0s and 1s are represented by pits and lands on a CD, name three types of optical storage device • Review the history and development of communication, understand how modern communication and computing devices combine multiple technologies, discuss the different ways and applications in which modern technology is used, discuss future uses of technology and the pace of change (Moore's Law) • Be able to apply their knowledge in answers to a range of questions, be able to highlight areas of strength and any gaps in their understanding of computers						
Resources	Computer hardware /software/internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 7 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Input, process, output, device, hardware, software, fetch, decode, execute, binary, conversion, memory, RAM, ROM, denary, ASCII, code, pits, lands, burn, read, write, data, track			✓			✓
Numeracy	Binary, Bit, Byte, Kb, Mb, Gb, Tb, denary, ASCII, code, pits, Hz, MHz, GHz			✓			✓
Challenge	• Independently navigate network • Independently organise and manage personal resources	✓					✓

Topic	Topic 3 – Control Systems with Flowol	C	R	E	A	T	E
NC Learning Intention	• Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems						
Lesson Learning Intentions	At the end of this Unit all pupils should be able to: • Identify everyday situations where computer control is used • Identify common types of sensors used by control systems • Identify control flowchart symbols and understand how they are used to break down problems • Produce flowchart-based solutions for control systems that include sequences and loops Most pupils will be able to: • Explain why control systems might fail and how this might impact on safety • Produce control solutions for problems that include subroutines Some pupils will be able to: • Produce control solutions for problems that include variables				✓	✓	✓
Lesson Tasks	• Identify control flowchart symbols and understand how they are used to describe systems, develop a control flowchart solution for a simple problem. • Understand why a control system might fail and explain the impact this can have on safety, develop a control solution for a system that uses two flowcharts operating in sequence. • Identify common types of sensors used in control systems, use decision symbols in a flowchart, develop a control solution for a system that uses multiple sensors • Develop a control solution for a system that includes a subroutine, understand how the use of subroutines can make programs more efficient • Understand what an actuator is used for in a control system, understand what a variable is and explain how variables can be used to help control systems, develop a control solution for a system that uses actuators and variables • Understand how a digital 7-segment display works, implement the 7-segment display, complete the assessment portfolio				✓	✓	✓
Resources	Computer hardware /Software/Internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 7 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓

Literacy	Gaming, navigation, programming, object, landscape, character, path, behaviour, clone, creatable, stories, strategy, sequence, selection, execute, when…do, pages, perspective, communication, instructions, behaviour, function			✓			✓
Numeracy	Time, variables, sub-routines			✓			✓
Challenge	• Independently navigate a network • Independently organise and manage personal resources	✓					✓

Topic	**Topic 4 –Key Stage 3 Online/E-Safety Topics** Managing online information	C	R	E	A	T	E
NC Learning Intention	Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns.						
Lesson Learning Intentions	**At the end of this Unit all pupils should be able to:** • Explain why using various additional tools can refine my searches more effectively (e.g. search filters: size, type, usage rights etc.). • Explain how online content published by an individual can be interpreted differently by others. • Explain how 'liking', 'sharing' or 'forwarding' online content can change people's opinions of someone (e.g. contribute to or damage their online reputation). • Explain how 'online marketplaces' can enable small businesses or individuals to do business on a wider / global scale. • Assess the benefits and limitations of online commerce.	✓			✓	✓	✓
Lesson Tasks	• How can context change the way we interpret something online? • How do interactions online change people's opinion of someone? • What are the benefits and drawbacks of e-commerce for businesses? • What are the benefits and drawbacks of e-commerce to consumers	✓			✓	✓	✓
Resources	Computer hardware /Software/Internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 8 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Tier 3- Adware/Coercion /Connectivity /Cookies /Cyberbullying /Digital Personality/Exclusion /Fake profiles/Grooming/Internet of things /Online commerce/Online identity/Peer-to-peer sharing /Pirate sites/Radicalisation /Self-regulation /Sexual harassment/Social Media /Social pressures /Streaming /Terms and conditions/Two factor authentication /Virus/Torrent /Trojan			✓			✓
Numeracy	Personal finance / credit /debit card / payment			✓			✓
Challenge	• Full understanding of understanding and managing information online • Independently use advanced features in software to fully address client requirements • Independently navigate network • Independently organise and manage personal resources	✓					✓

Topic	Topic 5 – Introduction to Coding Through Kodu	C	R	E	A	T	E
NC Learning Intention	• Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems • Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions						
Lesson Learning Intentions	**At the end of this Unit all pupils should be able to:** • Identify what the terms *program*, *navigate*, *object* and *world* mean in computer games design • Explain that a computer program requires a precise series of instructions to operate • Create and alter basic landscape features in Kodu • Describe the possible ways in which a character can be made to move within Kodu • Describe a range of game techniques such as *pathing*, *clones* and *creatables* • Explain how *behaviours* can change for a character • Describe what is meant in programming by the term *selection* **Most pupils will be able to:** • Explain why it is important to define program steps in a series of very specific instructions • Explain the steps involved in programming at least two different methods to make a Kodu move, one manual and one automatic • Explain the difference between cloning and creatable techniques and give the advantages of each in terms of ease of program maintenance • Explain how the selection concept of *pages* in Kodu can be used in order to code different behaviours • Explain a range of techniques for creating a landscape which is suitable for a given purpose **Some pupils will be able to:** • Apply a range of skills to modify and create a simple game world which interacts with objects • Apply knowledge and understanding to modify a game to make a Kodu move in response to behaviours • Link knowledge and understanding to independently create or modify a game, adding extra depth and complexity by using a range of more advanced game techniques such as power ups, timers etc. • Explain how to use scoring and methods such as colour winning to add additional depth to their games				✓	✓	✓

Lesson Tasks	• Learn what the terms program, navigate, object and world mean in computer games design, understand that a computer program requires a precise series of instructions to operate correctly • Create and alter basic landscape features in Kodu, learn a range of techniques for creating a landscape which is suitable for a chosen game • Learn about a range of game techniques such as pathing, learn the steps involved in programming at least two different methods, one manual and one automatic, to make a Kodu move, apply a range of skills to modify and create a simple Kodu game world which interacts with objects • Learn about a range of game techniques such as pathing, learn the steps involved in programming at least two different methods, one manual and one automatic, to make a Kodu move , Apply a range of skills to modify and create a simple Kodu game world which interacts with objects • Understand what is meant in programming by the term selection, learn how the selection concept of pages in Kodu can be used in order to code different behaviours, modify a game to make a Kodu move in response to behaviours. • Learn how to use a range of more advanced game techniques such as power ups, timers, health and sound, explain how to use scoring and methods such as colour winning to add additional depth to a game • Test a program and complete the assessment				✓	✓	✓
Resources	Computer hardware /Software/Internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 7 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Gaming, navigation, programming, object, landscape, character, path, behaviour, clone, creatable, stories, strategy, sequence, selection, execute, when…do, pages, perspective, communication, instructions, behaviour, function			✓			✓
Numeracy	Time, counters, points			✓			✓
Challenge	• Independently navigate network • Independently organise and manage personal resources	✓					✓

Year 8

Topic	Topic 1 – Graphics	C	R	E	A	T	E
NC Learning Intention	• Undertake creative projects that involve selecting, using, and combining multiple • applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. • Create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability. • Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns.						
Lesson Learning Intentions	**At the end of this Unit all pupils should be able to:** • Explain that bitmap images are made up of individual pixels • Explain that in the case of a vector graphic, properties such as position, fill, stroke colour and dimensions are stored • Create and manipulate a simple group of objects to form a logo design • Change the saturation, brightness and contrast in an image • Add text to a graphic • Use a graphics package to create an artwork; for example, a movie poster **Most pupils will be able to:** • Describe the characteristics of bitmap and vector graphics, state the advantages of each and give examples of situations in which each would be appropriate • Use fonts consistently and carefully to convey a particular message or image • Use white space effectively • Use layers in the creation of an artwork **Some pupils will be able to:** • Use the advanced facilities of a graphics package, for example to manipulate, cut out, and alter images	✓			✓	✓	✓

	• Create a series of two or more posters in the same style, using a combination of layered images and fonts effectively to convey a message						
Lesson Tasks	• Introduction to vector graphics - Understand the characteristics of a vector graphic and how it is stored, experiment with analogous, complementary and monochromatic colour schemes, create and manipulate a simple group of objects to form a logo design, understand that text characters are vector-based. • Bitmap graphics - Understand how a bitmap graphic is made up of individual pixels, understand that the number of bits per pixel determines the number of available colours for an image, compare the different characteristics, strengths and uses of vector and bitmap images, manipulate vector and bitmap images • Conveying meaning through images - Understand how fonts, colours and images convey meaning, the importance of resolution when selecting or printing an image, learn how to use and manipulate layers to create a final image, create and save a graphic in a format that preserves the layers • Effects and enhancements - To learn how to change the saturation, brightness and contrast in an image, the importance of white space in a poster or advertisement • Adding text to a graphic image- Use care and attention when selecting a font to get a particular message across, understand the importance of consistency in font selection, understand that using too many different fonts dilutes the message and looks messy • Assessment and review - Save the movie poster in an exportable format, give and receive feedback on each other's posters, make refinements according to feedback received, consider how a movie poster can be adapted for a sequel, maintaining a similar style	✓			✓	✓	✓
Resources	• Computer hardware software/internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 8 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Tier 3- Vector, bitmap, properties, scalable, analogous, complementary and monochromatic colour schemes, pixel, bit, byte, dpi, gradient fill effects, saturation, brightness, contrast, resolution, layer, white space Tier 2- Bullet Points, Lists, Format, Design, Layout, Font Genre, Features, Convention Challenge, Skills, Focus, Deadline Online, Personal, Data, Sharing, Risks Coding, Programming, Resilience			✓			✓

Numeracy	Shapes, rectangle, squares, eclipses, polygons, colour bits (16,32,64,128….) pixel dimension			✓			✓
Challenge	• Independently use advanced features in software to fully address client requirements • Independently navigate network • Independently organise and manage personal resources	✓					✓

Topic	Topic 2 – Computing – Coding Using Python	C	R	E	A	T	E
NC Learning Intention	• Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems. • Understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem. • Use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions.						
Lesson Learning Intentions	**At the end of this Unit all pupils should be able to:** • Run simple Python programs in Interactive and Script mode • Write pseudocode to outline the steps in an algorithm prior to coding • Write programs using different types of data (e.g. strings and integers) • Correctly use different variable types (e.g. integer and floating point), assignment statements, arithmetic operators • Distinguish between syntax and logic errors and be able to find and correct both types of error • Describe the purpose of pseudocode in designing algorithms • Use comments to document their programs and explain how they work • Write an error-free, well-documented program involving sequence, selection and iteration, but with some help given **Most pupils will be able to:** • Write an error-free, well-documented program involving selection and iteration • Describe how a binary search is carried out • Explain the advantages of a binary search over a linear search for an ordered list **Some pupils will be able to:** • Devise their own algorithms to solve reasonably complex problems, e.g. a binary search • Test and debug their programs, and correct both syntax and logic errors				✓	✓	✓

	• Make allowances in their programs for user input errors, ensuring that the program still runs to a successful conclusion – which may include printing an error message and stopping the run						
Lesson Tasks	• Strings and variables - Run a simple Python program in Interactive mode using the input and print functions, write, save and run a program in Script mode, understand what a syntax error, know the rules for variable names and use variables in a program, understand the use and value of comments in a program. • Data types and arithmetic - Understand the importance of using correct data types string, integer, float, Use the int, float and round functions, how to use assignment statements, perform arithmetic using the BIDMAS rule, write a program involving input, calculation and output • Selection - How to use selection statements if, else and elif in a program, to use different comparison operators, the importance of indentation to correctly to define a block of code • Writing algorithms- Learn to write algorithms in pseudocode, identify different types of program errors: syntax errors, run-time errors and logic errors and how to fix them • Iteration: While loops- Use a while loop in a program, use an if statement within a while loop, use a function to generate a random number • Searching - Compare alternative search algorithms for a given problem, use a linear search to find a number, write code to execute a binary search • Assessment - Write and test a program, complete the assessment	✓			✓	✓	✓
Resources	• Computer hardware /Software/Internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 8 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Tier 3 - Integrated development, IDLE, interactive mode, Script mode, variable, string, syntax, assignment statement, augmented assignment operator, data type, integer, float, round, BIDMAS, selection, sequence, iteration, module, function, syntax error, logic error, debug, binary search			✓			✓
Numeracy	variable, string, syntax, data type, integer, float, round, BIDMAS, module, function, debug, binary search			✓			✓
Challenge	• Independently use advanced features in software to fully address client requirements • Independently navigate network • Independently organise and manage personal resources	✓					✓

Topic	Topic 3 – Sound Manipulation in Audacity	C	R	E	A	T	E
NC Learning Intention	• Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. • Create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability.						
Lesson Learning Intentions	**At the end of this Unit all pupils should be able to**: • Explain how sound is digitized • Use input and output devices to record and play sounds • Select suitable materials for a project • Use basic editing techniques to produce a sound file • Work collaboratively to give and receive feedback on work done by others **Most pupils will be able to:** • Select appropriate material for a specific audience • Combine speech, music and sound effects from different sources into one end product • Use more sophisticated editing techniques • Explain how their product meets the given brief **Some pupils will be able to:** • Plan and create a project with the minimum of assistance • Include a range of suitable techniques and effects to produce an effective product that meets specification				✓	✓	✓
Lesson Tasks	• To identify different sound file type, record and delete sounds in Audacity, apply effects to recordings, explain the process of converting analogue sound waves to digital format. • To understand job roles in sound editing, the use of sound effects, to understand stereo effects, to be able to edit a sound file – trim, move/remove sections, working with multiple tracks. • To identify different elements used in a radio advertisement, to explain how the advert is suitable for audience and purpose, to plan an advertisement, to produce a storyboard from an advertisement. • To edit a sound envelope, assemble sound files into a radio advert, apply effects to enhance your work, ensure it is suitable for audience and purpose				✓	✓	✓

	• To be aware of different sound file types and choose an appropriate type to export to, understand the difference between lossy and lossless compression, understand why a project has to be exported, create and use a testing plan • To evaluate your own work taking into consideration others' opinions, evaluate someone else's work, review requirements for a sound editing project, complete the assessment portfolio						
Resources	Computer hardware/software/internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 8 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Sound editing: trim, effects, noise, pitch, envelope, ducking, import, export, mono, stereo, audio track, time shift Sound storage: sampling, frequency, amplitude, wavelength, sound wave, sampling frequency, digital, bitrate, diegetic and non-diegetic sound			✓			✓
Numeracy	• Compression file size • Timing / Time • different sample rates • Binary • Bit Rate – 4bit /8bit / 16bit / 32bit • Analogy • Digital			✓			✓
Challenge	• Independently use advanced features in software to fully address client requirements • Independently navigate network • Independently organise and manage personal resources	✓					✓

		C	R	E	A	T	E
Topic	**Topic 4 –Key Stage 3 Online/E-Safety topics** Privacy and Security						
NC Learning Intention	Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns.						
Lesson Learning Intentions	**At the end of this Unit all pupils should be able to:** • Explain what cookies are and can give examples of how my online browsing can be tracked and used by others (e.g. adware). • Know that accessing some websites or services may increase the risk of encountering viruses and other types of malware. • Demonstrate ways in which someone can change their browser settings to make their online browsing more secure (e.g. cookie permissions, do-not-track-me, password storage, incognito). • Explain app permissions and analyse them to make informed choices on which apps to use. • Explain how the security of devices connected to the internet may be compromised (e.g. webcams, monitors, phones or toys). • Demonstrate actions people can take to minimise such compromise (e.g. covering cameras on computers when not in use).	✓			✓	✓	✓
Lesson Tasks	• Why do apps and services want to track their users? • What are the benefits and risks associated with having your behaviours tracked online? • How do you improve your privacy and manage how apps and services may track your behaviours? • What permissions might different apps seek to access on your mobile device? • What risks might you be exposed to due to internet connected devices?	✓			✓	✓	✓
Resources	Computer hardware /software/internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 8 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Tier 3- Incognito /Adware/Cookies /Digital Personality/Do-Not-Track-Me app/Internet of things /Online commerce/Online identity/Peer-to-peer sharing/Self-regulation /Streaming /Terms and conditions/Two factor authentication /Virus/Torrent /Trojan Tier 2- Fitness trackers			✓			✓

Numeracy	• Personal finance / credit /debit card / payment			✓			✓
Challenge	• Full understanding of Privacy and security • Independently use advanced features in software to fully address client requirements • Independently navigate network • Independently organise and manage personal resources	✓					✓

Topic	Topic 5 – End of Year Projects	C	R	E	A	T	E
NC Learning Intention	• Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems. • Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. • Create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability. • Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns.						
Lesson Learning Intentions	• Samsung 'Solve for Tomorrow' • Computing – 'Who's the Hacker?' • I-MEDIA – Visit Southend Client Brief				✓	✓	✓
Lesson Tasks	• Project Season – Samsung Solve for Tomorrow 1 • Project Season – Samsung Solve for Tomorrow 2 • Project Season – Who's the Hacker1 • Project Season - Who's the Hacker 2 • Project season – I-media client brief – visit Southend 1 • Project season – I-media client brief – visit Southend 2	✓			✓	✓	✓
Resources	• Samsung Solve for Tomorrow • Who's the hacker – British Army • Computer hardware/software/internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 8 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Tier 3 -Design sprint, mind map, prototypes, visualisation, hackers, cybersecurity, Vector, bitmap, properties, scalable, analogous, complementary and monochromatic colour schemes, pixel, bit, byte, dpi, gradient fill effects, saturation, brightness, contrast, resolution, layer, white space			✓			✓
Numeracy	Interpretation of graphs, coordinates, ratio, addition, statistical analysis			✓			✓
Challenge	• Independently use advanced features in software to fully address client requirements • Independently navigate network • Independently organise and manage personal resources	✓					✓

Year 9 – Computing

Topic	Topic 1 – Spreadsheet Modelling	C	R	E	A	T	E
NC Learning Intention	Understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem. Use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions						
Lesson Learning Intentions	**At the end of this Unit all pupils should be able to:** • Give examples of how computer models are used in the real world • Format a simple spreadsheet model • Use simple formulae and functions • Name cells in a spreadsheet model • Use a simple spreadsheet model to explore different "what if" scenarios • Create a basic pie chart to display results **Most pupils will be able to:** • Explain what is meant by a financial model • Explain the advantages of naming cells in a spreadsheet model • Format, construct and manipulate a simple spreadsheet model using formulae • Use conditional functions in calculations • Use conditional formatting • Use a spreadsheet model to predict and test the outcomes for different scenarios **Some pupils will be able to:** • Justify the formatting they have used in a spreadsheet model • Present information from a spreadsheet model in a variety of formats • Create a macro and assign it to a button on the spreadsheet • Customise a chart to present information effectively • Evaluate the effectiveness of a computer model				✓	✓	✓

Lesson Tasks	• Understand that spreadsheets can be used to build financial models, spreadsheet basics, relative and absolute referencing, format cells, insert graphics • Create a financial realistic model based on known data to predict the profit on the sale of merchandise, consider ways to increase profit to meet targets • Use a spreadsheet to model outcomes, use functions including Max, Min and If. Name a cell, sort data into different sequences, use 'What if' scenarios to achieve a goal, display the formulae in a spreadsheet. • Create a seat booking system for a live show , use a validation rule , use conditional formatting , use a Countif function in calculations sales. • Create a macro, assign the macro to a button, create and customise a pie chart to represent data.				✓	✓	✓
Resources	Computer hardware /software/internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 9 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Tier 3- Model, simulation, cell, row, column, format, decimal, integer, currency, formula, relative reference, absolute reference, validation, macro, pie chart. Tier 2 -e-safety, investigate, feature, challenge, skills, focus, deadline			✓			✓
Numeracy	• Successfully introduce numbers into secure access to network • SUM / Average / Min / Max / Percentage / multiplication / division / subtraction /Count / Countif / Absolut cell reference • Sorting data • Cell references • Formatting • What if scenarios • Conditional formatting • Cell naming • Validation • Charting • Simple macros			✓			✓
Challenge	• Independently use advanced features in software to fully address client requirements • Independently navigate network • Independently organise and manage personal resources	✓					✓

Topic	Topic 2-Video	C	R	E	A	T	E
NC Learning Intention	• Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. • Create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability.						
Lesson Learning Intentions	**At the end of this Unit all pupils should be able to:** • Work as part of a team to complete an appropriate advertisement or movie • Work collaboratively on editing and giving feedback on the work of others • Show discrimination in selecting accompanying material such as still images, sound effects and background music • Use a range of digital devices • Use video transitions and video effects to improve their movie **Most pupils will be able to:** • Select appropriate material for a specific audience • Combine music and sound effects with moving and still images from different packages and sources into one end product • Add introductory and final pages with appropriate text **Some pupils will be able to:** • Plan and share the elements of a team project taking into account the strengths of each team member				✓	✓	✓
Lesson Tasks	• Describe the purpose of different video clips, suggest which audience, identify different filming techniques, understand how camera angles can help create mood, what makes a good advertisement. • Decide on a product for an advert, target audience, purpose of the advert. Create a storyboard and script and define and identify diegetic and non-diegetic sounds. • Work in a group to create a TV advert, select tasks/roles, use a digital camera to take still images and record a video with the correct settings and transfer a video file to a PC or Mac	✓			✓	✓	✓

	• Import a video clip into a movie-editing software package, edit a video clip, add text, including any relevant information and review the TV advert • Edit your video clip removing unwanted parts, add other features to your video frames where appropriate, save the movie in a suitable format for viewing, review your own TV advert and review another group's advert						
Resources	Computer hardware /Software/Internet / Digital camera				✓	✓	✓
DRAFT	Essential Digital Skills – Year 9 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Tier 3- MPEG, AVI, MOV, diegetic and non-diegetic sounds, movie clip, framing techniques, long shot, close up, bird's eye view, high angle, low angle, panning, tracking, angle, 'props', ramming, scene, storyboard, script Tier 2 – camera, locations, mood music, narration, scene, video, target audience			✓			✓
Numeracy	Time - Seconds / minutes			✓			✓
Challenge	• Independently use advanced features in software to fully address client requirements • Independently navigate network • Independently organise and manage personal resources	✓					✓

Topic	**Topic 4 –Key Stage 3 E-Safety topics** Copyright and ownership	C	R	E	A	T	E
NC Learning Intention	Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns.						
Lesson Learning Intentions	• Understand Creative Commons Licensing protocols. • Demonstrate simple ways in which I can protect my own work from copyright theft. • Evaluate the possible impact of legal and illegal downloading on those people who create online content and the consequences for the wider community	✓			✓	✓	✓
Lesson Tasks	• What is Creative Commons Licensing? • How can I protect my work from copyright theft? • What impact does illegal downloading have on creators?	✓			✓	✓	✓
Resources	Computer hardware /Software/Internet				✓	✓	✓
DRAFT	Essential Digital Skills – Year 9 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Tier 3- Creative Commons Licensing, Copyright and Patents Act, Public Domain, Attribution, Non-commercial, Derivative work Tier 2- Download, creator, protect, ownership			✓			✓
Numeracy	Personal finance / credit /debit card / payment			✓			✓
Challenge	• Full understanding of copyright and ownership • Independently navigate network • Independently organise and manage personal resources	✓					✓

Topic	Topic 4-HTML	C	R	E	A	T	E
NC Learning Intention	• Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users • Create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability • Use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions						
Lesson Learning Intentions	**At the end of this Unit all pupils should be able to:** • Write HTML code to create a simple web page and display it in a browser • Write CSS to define the styles used in a web page • Create a simple navigation system using HTML • Use a design to create a template for a web page using HTML • Create their own multi-page website • Insert text, images and links on their web pages **Most pupils will be able to:** • Use a range of HTML tags to create well laid out web pages • Write CSS code to define the styles of different parts of a web page • Use HTML and CSS to create their web page template • Use the template to design a multi-page website with a consistent look and feel to each page • Use responsive design techniques in creating their website so that the web pages will adapt to any size of screen • Create a simple web form to collect user data **Some pupils will be able to:** • Add enhancements or additional features to the original basic design • Construct a good-looking, well-formatted interactive website that is suitable for its intended audience				✓	✓	✓
Lesson Tasks	• Understand that the WWW is a huge collection of websites all over the world, what HTML is and what it is used for, type basic HTML tags using a text editor to create a page that can be viewed in a browser, edit the HTML code and view the changes in a browser	✓			✓	✓	✓

	• Learn how CSS is used to set the styles in web pages and websites, write CSS code to set styles, learn what is meant by responsive design, and create a responsive web page, learn the main principles of good website design. • Complete website designs and gather content, use an HTML template to create consistent web pages, use float to position elements on a page • Learn how to create a consistent look and feel throughout a website, add well-formatted content, including text and images, to each page, create internal and external links and make sure they all work • Learn how to create a web form, learn what happens to the input data once it has been submitted. • Carry out final tests, perform a self-evaluation of level of skills and understanding achieved for the unit, complete the Assessment Portfolio						
Resources	• Computer hardware /Software/Internet / Digital camera				✓	✓	✓
DRAFT	Essential Digital Skills – Year 9 Passport – Opportunity for pupils to identify skills (Skills Builder framework) and reflect on successes, improvements and targets.		✓			✓	✓
Literacy	Tier 3 - HTML, tags, attribute, property, CSS, inline, internal, embedded, external, style, element, text editor, web browser, navigation, responsive design, hyperlink, template, float Tier 2 – Forms, responsive, template			✓			✓
Numeracy	Measurements – pixel, monitor, screen size, resolution, file size			✓			✓
Challenge	• Independently use advanced features in software to fully address client requirements • Independently navigate network • Independently organise and manage personal resources	✓					✓

Year 10 -iMedia

Topic	R093-Creative IMedia in the media industry – Media Industry	C	R	E	A	T	E
NC Learning Intention	• Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. • Understand and apply the fundamental principles and concepts of digital media						
Lesson Learning Intentions	• Agreed expectations / rewards /skills • Relationship building • Understand of content /codes • Media industry and products • Job roles in the media industry				✓	✓	✓
Lesson Tasks	• Digital media culture -Agreement • Media industry sectors and products • Job roles in the media industry • Know the different sectors of the media industry • Know the types of products produced by, and used in, different sectors • Know the roles in the media industry along with their responsibilities • Understand where in the roles occur in production. • Practical – Create a career graphic for a job role in the media industry				✓		
Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓		✓
DRAFT	Topic exam paper - Reflection on results / Whole class feedback		✓				
Literacy	Tier 3- traditional media: film; television; radio; print publishing, new media: computer games; interactive media; internet; digital publishing, video, audio, music, animation, multimedia, special effects (sfx, vfx)digital imaging and graphics, websites, social media platforms/apps, digital games, comics and graphic novels, ebooks, ar/vr, creative roles: animator, content creator, copy writer, graphic designer, illustrator, graphic artist, photographer, script writer, web designer, technical roles: camera operator, games programmer/developer, sound editor, audio technician, video editor, web developer, senior roles: campaign manager, creative director, director, editor,			✓			

	production manager, pre-production, production, post-production, senior roles -production manager, editor, creative director, campaign manager Tier 2 - culture, expectations, effort & outcome, skills builder essential skills, course codes/ content						
Numeracy	Time, File size, storage, download speeds			✓			
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society Support social media accounts – Eastwood Future Ready Instagram account Support podcast – Eastwood Future Ready	✓					✓

Topic	R093 -Creative IMedia in the media industry –Factors influencing product design	C	R	E	A	T	E
NC Learning Intention	• Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. • Understand and apply the fundamental principles and concepts of digital media						
Lesson Learning Intentions	• How style, content and layout are linked to the purpose • Client requirements and how they are defined • Audience demographics and segmentation • Research methods, sources and types of data • Media codes used to convey meaning, create impacts and engage audiences				✓	✓	✓
Lesson Tasks	• Examples of media products with different purposes • Creatively using • Software and hardware to create digital guide to lesson objective • Client requirements and audience • Who is the client? Client requirements. Client ethos • Client requirements and audience • Purpose and audience				✓		

	• Understand the reasons for, and benefits of, conducting research. Understand how research is carried out • Primary research methods, Secondary research sources, qualitative vs quantitative information • Media codes -Describe the mise-en- scene for a film of your choice, cameras and lighting						
Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓		✓
DRAFT	Topic exam paper - Reflection on results / Whole class feedback		✓				
Literacy	Tier 3- Segmentation , Commission, Qualitative and quantitative information, Typography (emphasis, font size, font types),. Mise-en-scène, Over the shoulder, low angle and aerial, close-up, mid shots and long shots, pan, tilt, zoom and using a track and dolly Tier 2 - Advertise / promote / entertain / inform / influence, Colour, convention of genre, formal/informal language, position of elements, style of audio, style of visual, tone of language Purpose, Product & content, Genres, Style, Logo usage, Theme, Timescale, Target, Audience, formal/informal, meeting/discussion, negotiated, Age, gender, occupation, income, education, location, interests, and lifestyle			✓			
Numeracy	Time, File size, storage, download speeds			✓			
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society Support social media accounts – Eastwood Future Ready Instagram account Support podcast – Eastwood Future Ready	✓					✓

Topic	R093 -Creative IMedia in the media industry –Pre-production planning	C	R	E	A	T	E
NC Learning Intention	• Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. • • Understand and apply the fundamental principles and concepts of digital media						
Lesson Learning Intentions	• Work planning • Documents used to support idea generation • Documents used to design and plan media products • Hardware and software requirements				✓	✓	✓
Lesson Tasks	• Workplan features.Workplan terms • Software skills / size / composition / colours • Know who uses mind maps. Describe the components of mind maps. Understand what makes mind maps effective. Understand that mind maps may be digital, or hand drawn. Identify areas for improvement of a mind map • Know who uses mood boards. Describe the components of mood boards. Understand what makes mood boards effective. Understand that mood boards may be digital, or hand drawn. Identify areas for improvement of a mood boards. • Know who uses scripts. Describe the components of scripts. Understand what makes scripts effective. Identify areas for improvement of a script				✓		

	• Know who uses storyboards. Describe the components of storyboards. Understand what makes a storyboard effective. Identify areas for improvement of a storyboard. Know who uses these documents. • Understand the hardware needed to digitise paper-based documents						
Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓		✓
DRAFT	Topic exam paper - Reflection on results / Whole class feedback		✓				
Literacy	Tier 3- Workplans, project phases, pre-production, , post-production, , workflow, timescales, milestones, contingencies, , components, effective, mind map, mood board, asset log, flow chart, script, storyboard, visualisation diagram, wireframe layout, hardware, software. Tier 2 – production, tasks, activities, resources, hardware, people, software, digital, hand drawn			✓			
Numeracy	Time, File size, storage, download speeds			✓			
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society Support social media accounts – Eastwood Future Ready Instagram account Support podcast – Eastwood Future Ready	✓					✓

Topic	R093 -Creative IMedia in the media industry –Distribution considerations	C	R	E	A	T	E
NC Learning Intention	• Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. • Understand and apply the fundamental principles and concepts of digital media						
Lesson Learning Intentions	• The legal issues that affect the media • Distribution platforms and media to reach audiences • Properties and formats of media files				✓	✓	✓
Lesson Tasks	• Understand the legal considerations. • Know the organisations and classification systems • Understand the health and safety risks and hazards • Understand how media is distributed				✓		

	• Understand graphic types						
Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓		✓
DRAFT	Topic exam paper - Reflection on results / Whole class feedback		✓				
Literacy	Tier 3- publishing, commercial use, harassment, invasion of privacy, defamation, libel, slander, data protection, data subjects, intellectual property (IP), copyright, ideas, patents, trademarks, creative commons licence(s), fair dealing, fees, licences, watermarks, symbols, regulation, ASA (Advertising Standards Authority), Ofcom (The Office of Communications), classification, certification, BBFC (British Board of Film Classification), PEGI (Pan European Game Information), , location recces, online, apps, multimedia, web, physical platforms, computer, interactive tv, kiosks, mobile devices, physical media, CD, DVD, memory stick, paper based, DPI, PPI, pixel dimension, raster, bitmap, vector, uncompressed, compressed, bit depth, sample rate, uncompressed, compressed, frame rate, resolution, SD, HD, UHD, 4K, 8K, animation, video, lossy compression, lossless compression. Tier 2 - Privacy, permissions, rights, public places, private property, health and safety, risks, hazards, actions, risk assessment			✓			
Numeracy	Compression, Time, File size, storage, download speeds, bit depth, sample rate, frame rate, resolution, SD,HD,UHD,4K, 8K			✓			
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society Support social media accounts – Eastwood Future Ready Instagram account Support podcast – Eastwood Future Ready	✓					✓

Topic	R094 -Developing visual identity and graphics	C	R	E	A	T	E
NC Learning Intention	• Develop their capability, creativity and knowledge in computer science, digital media and information technology. • Understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns.						

Lesson Learning Intentions	• Purpose of visual identity • Visual identity components and elements • Design and layout • File types and formats • Licences and permissions • Planning visual identity				✓	✓	✓
Lesson Tasks	• Understand the legal considerations that protect individuals including: – Privacy and permissions • Know the organisations and classification systems and certifications used on media products, including: – BBFC (British Board of Film Classification) certifications – PEGI (Pan European Game Information) certifications • Understand the health and safety risks and hazards in all phases of production including: – Risk assessments • Understand how media is distributed including: – Online, including apps, multimedia and web – Physical platforms, including computers, interactive tv, mobile devices – Physical media, including, memory stick, paper based • Understand the following concepts: – Raster/bitmap and vector images				✓		
Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓		✓
DRAFT	NEA, Reflection on results / Whole class feedback		✓				
Literacy	Tier 3- publishing, commercial use, harassment, invasion of privacy, defamation, libel, slander, data protection, data subjects, intellectual property (IP), copyright, ideas, patents, trademarks, creative commons licence(s), fair dealing, fees, licences, watermarks, symbols, regulation, ASA (Advertising Standards Authority), Ofcom (The Office of Communications), classification, certification, BBFC (British Board of Film Classification), PEGI (Pan European Game Information), , location recces, online, apps, multimedia, web, physical platforms, computer, interactive tv, kiosks, mobile devices, physical media, CD, DVD, memory stick, paper based, DPI, PPI, pixel dimension, raster, bitmap,			✓			

	vector, uncompressed, compressed, bit depth, sample rate, uncompressed, compressed, frame rate, resolution, SD, HD, UHD, 4K, 8K, animation, video, lossy compression, lossless compression. Tier 2 - Privacy, permissions, rights, public places, private property, health and safety, risks, hazards, actions, risk assessment						
Numeracy	Compression, Time, File size, storage, download speeds, bit depth, sample rate, frame rate, resolution, SD,HD,UHD,4K, 8K			✓			
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society Support social media accounts – Eastwood Future Ready Instagram account Support podcast – Eastwood Future Ready	✓					✓

Topic	R094 -Creating visual identity and digital graphics	C	R	E	A	T	E
NC Learning Intention	• Develop their capability, creativity and knowledge in computer science, digital media and information technology. • Understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns.						
Lesson Learning Intentions	• Asset sourcing and creating • Creating a visual identity • Compiling an image • Basic tools • Isolating text and advanced tools • Retouching and other tools • Saving and exporting				✓	✓	✓
Lesson Tasks	• Understand technical features of assets including: pixel dimensions, DPI and resolution • Be able to create a visual identity using graphics software – Be able to add a name and slogan to a logo to create a visual identity • Understand features of graphic products such as:				✓		

	– Rule of thirds – Margins • Understand how to make effective choices of assets • Be able to change the brightness and contrast of an image • Make use of the paint brush tool and change brushes • Apply filters to a layer • Be able to isolate images including: – Image selection – Selection tools: magic wand, magnetic lasso, colour selection • Use other advanced tools: – Layer styles • Understand features of graphic products such as: – Giving objects space and highlighting key factors • Be able to use retouching tools such as: – Cloning – Healing – Blur – Pencil • Understand how visual identity is used across a series of products • Understand how assets are saved to ensure technical compatibility for use within print graphics including: – Resizing and resampling – Modifying image properties – Checking pixel dimensions and DPI • Be able to save and export graphics using: – Master files / proprietary formats – Exporting visual identity and digital graphics in file formats and image properties suitable to meet client requirements						
Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓		✓
DRAFT	NEA, Reflection on results / Whole class feedback		✓				

Literacy	Tier 3- Image size, canvas size, layout tools, drawing tools, adjustment layer, brightness, contrast, selections, layers, layer styles, retouching, typography, filters, effects, , colour fill, gradients, levels, colour balance, hue, saturation, opacity, merge layers, rename layers, drop shadows, effects, textures, cloning, healing, blur, colour, swatches, colour picker, pencil, brush, typography, , tracking, leading, vignette, source assets, stock libraries, client library, asset folder, editing assets, derivative asset, drawing tools, bitmap file, vector file, resize, resample, image properties, pixel dimensions, DPI, resolution, original assets folder, edited assets folder, proprietary file format. Tier 2 - font style, font size, font effects, shapes			✓			
Numeracy	Image size, pixel dimension, resolution			✓			
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society Support social media accounts – Eastwood Future Ready Instagram account Support podcast – Eastwood Future Ready	✓					✓

Year 11

Topic	R098 -Visual Imaging – Plan visual imaging portfolios – Features and conventions of photographic images and video	C	R	E	A	T	E
NC Learning Intention	• Develop their capability, creativity and knowledge in computer science, digital media and information technology. • Understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns.						
Lesson Learning Intentions	• Features and conventions of photographic images • Features and conventions of video sequences • Creativity in photography and video				✓	✓	✓

Lesson Tasks	• Features and conventions of photographic images
	  ○ Composition
	  ○ Use and placement of props
					✓		

	○ Visual style ○ Lighting effects • Features and conventions of video sequences ○ Camera work ○ Camera orientation ○ Lighting ○ Platform and medium related conventions ○ Post-production techniques ○ Use of in-camera audio • Creativity in photography and video ○ Originality ○ Imaginative concepts ○ Derivative ideas						
Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓		✓
DRAFT	NEA, reflection on results / Whole class feedback		✓				
Literacy	Tier 3- Composition, abstract, sequence, landscape, orientation, transitions, SFX, VFX, derivative Tier 2 – Props, visual, lighting, styles, promotion, camera, orientation, journalism, documentaries			✓			
Numeracy	Compression, Time, File size, storage, download speeds, bit depth, sample rate, frame rate, resolution, SD,HD,UHD,4K, 8K			✓			
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society Support social media accounts – Eastwood Future Ready Instagram account Support podcast – Eastwood Future Ready	✓					✓

Topic	R098 -Visual Imaging – Plan visual imaging portfolios - Content used in visual imaging portfolios & Resources required to create interactive digital media products	C	R	E	A	T	E

NC Learning Intention	• Develop their capability, creativity and knowledge in computer science, digital media and information technology. • Understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns.						
Lesson Learning Intentions	• Physical content of recorded video • Assets • Technical capabilities of camera equipment and accessories				✓	✓	✓

Lesson Tasks	• Physical content of recorded video
	  ○ People
	  ○ Props
	  ○ Scenes
	  ○ Sets
	• Assets
	  ○ Audio and sounds
	  ○ Motion graphics
	  ○ Recorded footage
	  ○ Sourced/stock footage
	• Technical capabilities of camera equipment and accessories
	  ○ Photographic images capture
	  ○ Video recording
					✓		

Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓		✓
DRAFT	NEA, reflection on results / Whole class feedback		✓				
Literacy	Tier 3- Foley, DSLR, CSC, compact, resolution, lens zoom, SD,HD,UHD,4K, 8K Tier 2 – Tripod, flash, camera, video recorder			✓			
Numeracy	Compression, Time, File size, storage, download speeds, bit depth, sample rate, frame rate, resolution, SD,HD,UHD,4K, 8K			✓			
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society Support social media accounts – Eastwood Future Ready Instagram account	✓					✓

	Support podcast – Eastwood Future Ready						

		C	R	E	A	T	E
Topic	R098 -Visual Imaging – Plan visual imaging portfolios – Pre-production and planning documentation and techniques for photoshoot and video recording.						
NC Learning Intention	• Develop their capability, creativity and knowledge in computer science, digital media and information technology. • Understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns.						
Lesson Learning Intentions	• Pre-production documentation and planning techniques for photography and video recording. • Pre-production documentation and planning for shots and video recording • Pre-production documentation to assess and minimise hazards and risks.				✓	✓	✓

Lesson Tasks	• Pre-production documentation and planning techniques for photography and video recording.
	  ○ Hand drawn / written plans
	  ○ Digitally created plans using software applications
	  ○ Shot lists
	  ○ Storyboard for video production
	• Pre-production documentation and planning for shots and video recording
	  ○ Location reece
	  ○ Choice of viewpoint
	  ○ Lighting consideration
	• Pre-production documentation to assess and minimise hazards and risks.
	Risk assessment
					✓		

Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓		✓
DRAFT	NEA, reflection on results / Whole class feedback		✓				
Literacy	Tier 3- Storyboards, Gantt charts, recces Tier 2 – Scripts, project management, sun angles, elevation, hazards, risk assessments			✓			

Numeracy	Compression, Time, File size, storage, download speeds, bit depth, sample rate, frame rate, resolution, SD,HD,UHD,4K, 8K			✓			
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society Support social media accounts – Eastwood Future Ready Instagram account	✓					✓

Topic	R098 -Visual Imaging. Create visual imaging portfolios	C	R	E	A	T
NC Learning Intention	• Develop their capability, creativity and knowledge in computer science, digital media and information technology. • Understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns.					
Lesson Learning Intentions	• Techniques and tools to take photographs • Techniques for processing photographic images • Techniques and tools to record video footage • Techniques and tools for editing video footage • Techniques to save and publish/export portfolios of photographs and video sequences				✓	✓

Lesson Tasks	• Compositional choices for taking photographs
	  ○ Rule of thirds
	  ○ Leading lines
	  ○ Natural frames
	  ○ Orientation
	  ○ Composition for points of interest, anticipating movement
	• Camera settings, techniques and choices for taking photographs
	  ○ Exposure settings
	  ○ Shutter speed
	  ○ Aperture
					✓	

	○ ISO ○ Lens focal length ○ Depth of field ○ Exposure compensation ○ White balance ○ Photographic image format • Adjustments to improve suitability sharpness ○ brightness/contrast ○ colour balance ○ cropping ○ correction tools ○ Selection of images based on technical suitability ○ Selection of images • Technical settings for video recording ○ Video format/resolution ○ Lighting scenes and subjects ○ Orientation ○ Frame rate • Techniques for recording video footage ○ Framing ○ Shot types ○ Camera angles ○ Camera movement • Tools and techniques for editing video (post-production) ○ Cut/split ○ Move/position on timeline ○ Adjustments ○ Transition effects ○ Applying effects ○ Editing of audio track ○ Insertion of still images					

	• Techniques for creating image portfolios in different media
	  ○ Contact sheets for proofing purposes
	  ○ Folder of image files
	  ○ Presentation
	  ○ Framed prints for exhibition or display
	  ○ Digital portfolios
	
	• Processes to create a video file for playback
	  ○ Rendering video
	  ○ Techniques for saving/exporting
	  ○ Video formats for different platforms					

Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓	
DRAFT	NEA, reflection on results / Whole class feedback		✓			
Literacy	Tier 3- Rule of thirds, negative space, golden ratio, exposure, shutter speed, aperture, depth of field, ISO, focal length, telephoto, White balance (WB) RAW, cloning, spot removal, composition, SD,HD,FPS, camera shots (close up, mid, long) camera movement (pan,tilt,zoom,track/dolly), sequencing, transitions, watermarking, VFX, chroma key, colour calibration, profile conversion, master versions, editable versions Tier 2 – Portrait, landscape, orientation, brightness, contrast, colour balance, cropping, blur, filter, effects, cinematography, focussing, trimming, captions, importing, volume,exporting			✓		
Numeracy	Compression, Time, File size, storage, download speeds, bit depth, sample rate, frame rate, resolution, SD,HD,UHD,4K, 8K, ratio			✓		
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society	✓				

	Support social media accounts – Eastwood Future Ready Instagram account					

Topic	R098 -Visual Imaging. Review visual imaging portfolios	C	R	E	A	T
NC Learning Intention	• Develop their capability, creativity and knowledge in computer science, digital media and information technology. • Understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns.					
Lesson Learning Intentions	• Techniques used to check and review visual imaging portfolios • Improvements and further developments				✓	✓
Lesson Tasks	• Techniques to check the technical properties of visual imaging portfolios o Methods of checking checklist o Elements of visual imaging portfolio to check file size, properties and format o playback testing for display size and media compatibility • Techniques to review the fitness for purpose of visual imaging portfolios o Suitability for client requirements o Suitability for target audience suitability of content o accessibility o Review of visual quality, aesthetics, appeal and engagement • Constraints which limit the effectiveness of visual imaging portfolios o Visual imaging portfolio constraints time o resources o hardware o software o skills				✓	

	• Visual imaging portfolio improvements Using camera settings ○ composition ○ stability of video ○ image processing ○ video editing • Further development opportunities for a visual imaging portfolio ○ Further developments length ○ product type and placement ○ story/narrative content ○ reuse of components ○ cross platform media					
Resources	Worksheets / Homework sheets Computer hardware / software / internet		✓		✓	
DRAFT	NEA, reflection on results / Whole class feedback		✓			
Literacy	Tier 3- Resolution, file size, file formats, client requirements, success criteria, vox pop, feasibile, commissions Tier 2 – Running time, portfolio, audio, distribution, test tables, peer, client, focus group,time, resources, hardware, software, budget, legislation, skills			✓		
Numeracy	Time			✓		
Challenge	Aiming high – Distinction* Join iMedia team - support the academy with documenting events and activities Join photography society Support social media accounts – Eastwood Future Ready Instagram account	✓				