Department: *ICT & Computing*						Year Group: *7*
Term	Topic/Subject	Assessment Objectives and Knowledge	Skills	Literacy, Numeracy (including wider reading)	Personal Development (SMSC, British Values, Careers, Healthy Living, Citizenship Equality and Diversity, Preparation for next stages	AFL/Summative Assessment
Autumn 1	**(1) Network Introduction & E-Safety** **(2) Scratch (module 1) - coding, animation & game design**	Understand how to log onto the network, save files in correct folder area. Understand how to complete the Online Safety Alliance e-safety course requirements. Understand how to sequence instructions in scratch. Understand how to use coding techniques in Scratch. Understand how to use two or more programming languages, at least one of which is textual.	Introduction to the network, user names, passwords, logging on. Setting up folder structure, saving files in correct folder area. Use of shortcuts for teaching resources. Use of learning logs. Using OSA online e-safety resources pupils will complete a variety of online tests to check understanding & knowledge of topics including online bullying, grooming, live streaming, safe smartphone use, digital footprints, health risks, consequences of poor choices, and how to report concerns. Introduction to using Scratch v2 resources to produce a variety of animations, games, and interactive programs such as a chatbot. Pupils will learn how to use correct sequencing of instructions, how to use loops, how to create & use variables, how to use input/output, if & else decision statements, boolean operators, and other combinations of programming constructs.	Suitable folder & filenames. E-Safety terms, including grooming, streaming, digital footprints. https://certificate.onlinesafetyalliance.org/#home-page-carousel https://codeclubprojects.org/en-GB/scratch/ Sequence of instructions, loops, variables, input/output, if/else decision statements, boolean operators. Variables, random numbers,	Appropriate use of school network, and internet. Explanation of user agreement. Safe use of internet, dangers to be aware of with other technologies. Introduction to game design, how this can be developed into career choice – discussion of importance of understanding need for computing skills.	Pupils will complete online tests for each section of the OSA course, and require a pass rate of at least 80%. They will receive a certificate on completion of this course. Assessed through continual assessment techniques, use of pupil assessment profiles combined with individual pupil learning log evidence for feedback & responses.

		Understand how to design and develop modular programs that use procedures or functions.	Pupils will complete a range of 6 different activities during this initial module. Extension activities are integrated into each project task.	coordinates.		
Autumn 2	**(2) Scratch - coding, animation & game design (continued)** **(3) Binary Numbers** **(4) Technology**	Understand how to design and develop modular programs that use procedures or functions. Able to convert binary numbers to denary numbers. Able to convert denary to binary numbers. Understand key points in historical	Pupils will complete a range of 6 different activities during this initial module, projects to be completed at the start of Autumn 2. Introduction to binary numbers, converting to denary with help of tables. Practice conversions using online CISCO binary number game. Pupils to research and investigate key points, historical figures involved with development of computers from 1800s to present day.	https://codeclubprojects.org/en-GB/scratch/ Sequence of instructions, loops, variables, input/output, if/else decision statements, boolean operators. Variables, random numbers, coordinates. Binary, denary numbers, conversion technique. https://www.bbc.com/bitesize/guides/z26rcdm/revision/1 https://www.bbc.com/bitesize/guides/zwsbwmn/revision/3 http://www.softschools.com/timel	Introduction to game design, how this can be developed into career choice – discussion of importance of understanding need for computing skills. Understanding of effect of computers on daily lives, why binary numbers are relevant, how computers process these. Advantages of control technology & effect this has had on how we live/work. Important British figures involved with development of computers (Alan Turing, Tommy Flowers, Charles	Assessed through continual assessment techniques, use of pupil assessment profiles combined with individual pupil learning log evidence for feedback & responses. Assessed through continual assessment techniques, use of pupil assessment profiles combined with individual pupil learning log evidence for feedback & responses. Assessed through continual assessment techniques, use of pupil assessment profiles combined with individual pupil learning log evidence for feedback & responses.

	(5) Stop Frame Animation	development of computers. Understand the principles of the internet and how cloud computing is used. Understand basic principles of stop frame animation. Understand how to create an animated logo for specific business theme. Understand how to use more complex animation techniques such as onion skinning.	Pupils to learn how to use Google Slides app to present a timeline of development. Pupils to learn basic skills involved with stop frame animation process on DrawPlus. Pupils to learn how to use key tools on DrawPlus. Pupils to be introduced to website theme of next project, and will learn how to create an animated logo for use on their website project, with specific business theme. Pupils to then develop more advanced animation skills to animate specific character movements, using onion skinning.	ines/computer_history_timeline/20/ Stop frame animation, onion skinning.	Babbage, Sir Tim Berners-Lee). Research & analysis of the effect of the development of the internet. Pupils to use inspiration from famous British animators as starting point for project (Wallace & Gromit). Understand relevance of animation industry.	Assessed through continual assessment techniques, use of pupil assessment profiles combined with individual pupil learning log evidence for feedback & responses.
Spring 1	**(6) Website Design**	Understand how to analyse the success of websites, and function of specific graphics. Understand how to create a keyframe animated	Pupils to conduct research looking specifically at different website graphics (banners, buttons etc) relevant to theme of project. Pupils to use DrawPlus to create a keyframe animated banner design to include on their website. Pupils to plan content and	Relevant terminology – target audience, requirements, site structure. https://edu.gcfglobal.org/en/beginning-graphic-design/layout-and-	Refer to importance of website design, graphical design industries. Reference to professionally designed examples of websites. Access to technology, websites, devices used to view websites.	Assessed through continual assessment techniques, use of pupil assessment profiles combined with individual pupil learning log evidence for feedback & responses.

		banner design. Understand how to create a website suitable for a specific target audience. Understand how to create master page templates to ensure a consistent website design. Understand how to apply appropriate content, suitable for purpose & target audience. Understand how to evaluate success of website design.	structure of website, by producing hand drawn planning sheets, sitemaps & visualisation diagrams. Pupils to create master page. Pupils to then setup suitable site structure. Demonstration of use of text boxes, artistic text tool, and picture flyout tool in WebPlus. Pupils to add appropriate content to homepage. Pupils to use peer evaluation & self evaluation to analyse success of website design. Identify and act on improvements.	composition/1/ Comparison of how professional websites have been designed, graphics used, purpose. https://99designs.co.uk/blog/tips/design-composition-and-layout/ Peer evaluation.		
Spring 2	**(7) Scratch Module 2**	Understand how to sequence instructions in scratch. Understand how to use coding techniques in Scratch. Understand how to use two or more programming languages, at least one of which is textual. Understand how to design and develop	Pupils will continue to learn how to use correct sequencing of instructions, how to use loops, how to create & use variables, how to use input/output, if & else decision statements, boolean operators, how to use & reference lists, and other combinations of programming constructs. Pupils will complete the second range of 6 different activities during module 2. Projects in this second module allow pupils to work independently, and create more complex solutions to problems. Extension activities are integrated	https://codeclubprojects.org/en-GB/scratch/ Sequence of instructions, loops, variables, input/output, if/else decision statements, boolean operators, lists, broadcasts.. Variables, random numbers, coordinates.	Highlight local game design industry in south warwickshire, importance of game design, how this can be developed into career choice – discussion of importance of understanding need for computing skills.	Assessed through continual assessment techniques, use of pupil assessment profiles combined with individual pupil learning log evidence for feedback & responses.

		modular programs that use procedures or functions.	into each project task, and solutions can be expanded/more depth of ideas created.			
Summer 1	**(8) Python Introduction**	Understand how to use basic programming constructs to create simple programs. Understand how to start to use python coding language, including sequencing, creating variables, changing data types, selection (if, elif, else), boolean operators, for/while loops. Understand how to use two or more programming languages, at least one of which is textual.	Introduction to Python textual coding language. Pupils to use online Trinket resource to type and preview code. Pupils to begin to learn simple functions (print) and syntax involved with Python. Pupils to then learn how to create ASCII art, and the importance of different data types (strings & integers). Pupils to learn about importance of indentation in Python, how to use decision statements & boolean operators in their code. Pupils to then learn how to use Turtle function in Python, and how to use random & randint functions. .	https://codeclubprojects.org/en-GB/python/ Functions, syntax, variables, data types..	Importance of computer programming/coding skills, opportunities in career development. .	Assessed through continual assessment techniques, use of pupil assessment profiles combined with individual pupil learning log evidence for feedback & responses..
Summer 2	**(9) Fusion Introduction**	Be able to learn how to use the Fusion 2.5 game design software. Be able to add objects, movement	Introduction to Fusion 2.5, video showing professional games produced, discussion about game design as a career choice. Pupils to then begin to produce initial 'Chocobreak' breakout style game, following explanations on skill card resources & tutorial videos on shared area of network.	Events, conditions, sequencing, timings. https://www.clickteam.com/clickteam-fusion-2-5 .	Discussion about game design as career choice, importance of game design industry in south Warwickshire area. Reference to use of copyright materials, sound files, how to use royalty free resources.	Assessed through continual assessment techniques, use of pupil assessment profiles combined with individual pupil learning log evidence for feedback & responses.

		properties, and events in correct sequence.	Pupils to extend basic game design, own level, bonus features, power-ups etc.			