Year 4 – Computing

Learning to be a **Computer Scientist**	Learning to be a **Creator**	Learning to be SMART – **E-safety**
Cs1 - I can explain how simple algorithms work and spot errors by extensively testing.	**Cr1 -** I can keep my files organised with relevant filenames.	**Es1 -** I can create a secure password using capital letters, numbers and symbols.
Cs2 - I can create and debug an algorithm using the move, rotate and repeat commands with the intention of meeting a specific goal.	**Cr2 -** I can edit and enhance images and text to make them more presentable.	**Es2 -** I can understand what is meant by spam and how we should protect ourselves from it.
Cs3 - I can create and use variables to store relevant information.	**Cr3 -** I can create a document/ presentation including images, word art etc.	**Es3 -** I can explain what to do if I am worried online and know about CEOPS.
Cs4 - I can create a procedure to draw regular polygons or patterns using the skills of sequence, selection and repetition.	**Cr4 -** I can arrange and layer objects including titles and backgrounds	**Es4 -** I can explain the SMART rules and give examples for each situations.
Cs5 - I can apply my knowledge regarding accurate instructions to ensure algorithms function properly	**Cr5 -** I can use a search engine to find relevant and reliable information using key search words e.g. "" and NOT/-.	**Es5 -** I can understand what it means to be a good digital citizen.
	Cr6 - I can use hyperlinks in my work to reference a reliable/saved page.	**Es6 -** I can understand what it meant by plagiarism and the consequences of plagiarising
	Cr7 - I can create and edit video footage and add titles, audio/soundtracks and transitions to make it presentable.	
	Cr8 - I can collect, analyse and present data accurately.	
	Cr9 - I can use timing on a presentation.	

Year 4 Topic Coverage

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cr1, Cr2, Cr3, Cr4	Cr1, Cr3, Cr4, Cr5, Cr6, Cr9,	Cs1, Cs2, Cs3, Cs4, Cs5	Cr1, Cr7	Cr5	Cr8,

Es1, Es2, Es3, Es4, Es5, Es6

Vocabulary					
Edit, Enhance, Layout, Manipulate, Order, Organised, Photoshop, PicCollage, Presentable, Relevant, Reliable, Structure, Techniques, Trustworthy, Unique	Accuracy, Filter, Hyperlink, Improve, Keywords, Layout, Order, Organised, Presentable, Pre-set, Relevant, Research, Shortcuts, Slide, Sources, Structure, Techniques, Timings, Transitions, Unique	Accessed, Block, Complex, Decomposition, Else, Error, Function, If, Manageable, Problem, Solving, Procedure, Repetition, Retrieve, Selection, Specific, Storage, Then, Unique, Variable	Audience, Audio, Credits, Cut, Edit, Export, Impact, Import Insert, Layers, Mask, Organised, Raw footage, Relevant, Selection, Special Effect, Tracks, Transitions, Trim, Unique	Accuracy, Filter, Improve, Keywords, Shortcuts	Audience, Bar chart, Excel, Pictogram, Pie chart, Present, Relevance, Selection

Accept, Admins, Advertisements, Author, Authorisation, Blocked, CEOPs, Consequence, Credit, Credit, Facebook, Filter, Hackers, Inappropriate content, Independence, Meet, Misleading, Permission, Plagiarism, Protected, Reliable, Safe, Secure, Social Media, Spam, Special Characters, Tell, TikTok, Trusted adult, Unwanted, Viruses

I will learn…					
That you can name a file anything. That files should have relevant names. That files should be stored in relevant folders. How to rename a file or folder. That some computer programs can be used to edit photographs. How to edit photos for a purpose using relevant software. That multiple techniques can be combined to make a well structured document. How to group and ungroup independently. How to order layers of objects for effect. That pages can look neat or messy depending on how you lay them out.	That you can name a file anything. That files should have relevant names. That files should be stored in relevant folders. How to rename a file or folder. That multiple techniques can be combined to make a well structured document. How to group and ungroup independently. How to order layers of objects for effect. That pages can look neat or messy depending on how you lay them out. That search engines have keywords to help them to search. How to search with key words e.g. Not and filetype:.	How to read through algorithms line by line. How to spot errors by testing different parts of the code. That a repeat command can make code more efficient. How to build an efficient algorithm using repeats. How to break down a problem to make it more manageable. That variables can be used to store information. That variables need to be created by the programmer. That variables need relevant names. That variables can be edit and accessed later on in the code. That a procedure is the name for a block of code that does a specific job. That procedures are created to reduce repetition of code.	That you can name a file anything. That files should have relevant names. That files should be stored in relevant folders. How to rename a file or folder. That raw footage needs to be edited to get rid of mistakes and make it more presentable. That that there are lots of programs for editing videos. How to insert video clips. How to cut and trim video clips. That transitions mask the cut between 2 clips. How to add additional sounds to a video. How to export a video.	That search engines have keywords to help them to search. How to search with key words e.g. Not and filetype:.	That data can be presented using lots of different programs. That different data is best presented in different ways.

	That hyperlinks can be used to show where you found your information/research.	That selection allows an algorithm to make decisions or return different results.			
	That presentations can be given timings to do different things. How to set timings on a presentation.	How to apply all of the skills I have learned to create more complex algorithms.			

That longer passwords with capitals, numbers and symbols are harder to guess.
That passwords using these are harder to guess for hackers.

That spam is a term for unwanted emails and messages.
That spam can be and should be blocked.
That spam can sometimes have viruses or misleading information.

That you should go to a trusted adult if you have problems on the internet.
That if you can't find a trusted adult you can go to CEOPs.

That S stands for safe, M stands for meet, A stands for accept, R stands for Reliable and T stands for tell.
How to apply these rules to real-life situations.

That by using the internet you are a digital citizen.
That to be a good digital citizen means to be kind online and use the SMART rules to guide your online actions.
That by being a bad digital citizen we can cause problems that have real-life consequences.

That information on the internet is owned by people.
That even though information on the internet can be used to learn and give ideas, it can't be directly copied.
That copying information without permission is called plagiarism.
That plagiarism can your work disallowed or serious trouble with the law for adults.