Ebor Progression of Knowledge and Skills - Strand Progression

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Control Systems	Explain what algorithms are Create simple programmes	Be able to explain that algorithms are implemented as programs on digital devices Be able to explain that programs run by following precise instructions Use logical reasoning to predict the behaviour of programmes Debug simple programmes	Be able to explain that programmes can be applied to various forms of input and output Write programmes that create specific goals Use sequence in programmes Work with various forms of input and output	Be able to explain what computer networks are, e.g. the internet Experiment with variables to control models Design, write and debug programmes that perform specific goals. Use sequence, selection and repetition in programs; work with variables. Make accurate predictions about what I think will happen	Be able to explain how computer networks work including the internet Combine sequences of instructions to turn an external device on and off Use logical reasoning to detect errors in algorithms Use selection accurately within programs	Describe how sensors can be used within programmes. Explain 'what if' questions when planning different scenarios for controlled devices Use logical reasoning to detect errors in more complex algorithms Combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say "well done" Design a physical computing system that uses sensors, e.g. using a flow chart Refine a program based on end user feedback.
Vocabulary	Algorithms, programmes, open and move.	(As before +) Logical, predict, debug, precise instructions.	(As before +) Create, specific goals, sequence, input and output.	(As before +) Experiment, variables, control, design, write, selection and repetition, accurate networks, internet.	(As before +) Combine, logical reasoning, external device, detect.	(As before +) Combine, relational operators (< = >), physical computing system, flow chart, end user.
Information Technology	Talk about how technology can be used to create and store digital content Use technology to create content Use technology to store digital content Use a mouse or trackpad effectively to navigate	Be able to explain that technology can be used to edit, amend or adapt digital content. Discuss and explore how to use ICT to organise, present and understand data as a simple graph. Use technology to create,	Describe how digital content can be used to find, retrieve and present information. Use search technology to communicate effectively Use technology to collect information Use a database to retrieve information	To be able to explain that information can be presented in different ways using various platforms and programmes. Select and use software to accomplish given goals Collect and present data in different ways	Explain that search results are ranked. Talk about the benefits of technology to collaborate with others Recognise an audience when designing and creating digital content	Appreciate and explain how search results are ranked and how this affects the end user. Discuss and explore the use of ICT to sort, organise and classify objects based on their properties. Select and combine software

	websites Save and reopen work on a digital device	communicate and collaborate Use ICT to source, generate and amend images. Begin to change or enhance photographs and pictures (crop, recolour). Create a simple animation using still images Take digital photographs and record video Use software to explore sound and musical phrases.	Present data in a range of ways to convey information Use technology to collaborate on a task Edit digital content in response to feedback	Design and create digital content for a specific purpose Evaluate and analyse information Use technology to collaborate in different ways Use ICT to compose music or sounds including creating melodies Storyboard and shoot a short stop motion animated sequence. Use a range of tools to edit and enhance media for particular effect	Select and combine software on a range of devices Generate, amend and combine visual media from different sources for a specific audience or task. Create a movie including still images and sound and add suitable titles and transitions. Capture/review different images, considering lighting, positioning and angle appropriate to a given task/audience. Use filters in a database to find out specific information Identify and use appropriate hardware and software to fulfil a specific task Create different types of graphs and charts that are appropriate to the data I am using; I can use them to interpret and answer a specific question. I can select and use suitable software and hardware to produce a multimedia soundtrack.	on a range of devices Collaborate with individuals and groups to create digital content for a specific purpose. Use ICT to create and modify charts quickly and easily. Create databases, retrieve information and draw conclusions based on results entered. Find suitable images, video and sounds from appropriate sources, taking into account copyright issues. Remix and edit a range of media to create content. Use appropriate ICT resources to compose music or sounds to accompany a story. Choose appropriate hardware to capture and review a range of images, considering lighting, positioning, sound quality and angle.
Vocabulary	Computer, tablet, mouse, keyboard, website, technology, phone, click, scroll, type, enter, digital, website, save and reopen.	(As before +) Organise, create, communicate and collaborate, source, generate and amend, crop, recolour, animation, photographs and video, software, present, data, simple graph.	(As before +) Collect, database, retrieve, task, edit, feedback.	(As before +) Select, specific purpose, evaluate, analyse, compose, storyboard, shoot, enhance, media.	(As before +) Search results, ranked, combine, generate, audience, movie, titles, transitions, capture, review, images, positioning, angle, filters (database), hardware, graphs and charts, multimedia, soundtrack..	(As before +) Organise and classify, modify, retrieve, draw conclusions, appropriate sources, remix, accompany, sound quality.
Digital Literacy	Talk about common uses of technology beyond school	Talk about where/how to seek help when they have	Discuss the benefits and risks of different apps and	Talk about acceptable and unacceptable behaviour	Explain where to find copyright free images and	Discuss the impact of an individual sending or

	Use technology safely Log on to a computer Keep personal information private	concerns about content Use technology respectfully	websites Explain the importance of a good password Discuss the dangers of spending too long online and the importance of regular screen breaks. Talk about when to share personal information and when not to Use technology responsibly Identify a range of ways to share concerns about conduct	using technology Explain the opportunities technology offers for communication Compose emails Know how to respond to unpleasant communications via texts, IM, email or chat rooms. Be discerning in evaluating digital content	audio, and why this is important Discuss the issues of copyright and the importance of acknowledging sources. Be able to explain how everything we do online leaves a digital footprint that can last forever Talk about what to do and who to contact if we see something that upsets / concerns us online. Explain privacy settings and what pictures are appropriate to share online. Discuss the benefits and dangers of communicating online/through different forms of technology. Explain the meaning of common website extensions (.org, . net. Gov etc) Talk about what makes a strong password and why this is important at school and in the wider world Beginning to question information based on author and location; recognise different viewpoints and the impact of incorrect data. Share and exchange ideas using emails/electronic communication respectfully.	uploading unkind or inappropriate content. Explain what 'Plagiarism' means and that it is important to acknowledge sources. Be able to explain that not all information on the internet is legal to use or copy Discuss the fact that we are all digital citizens and the potential impact and influence we can have on the outside world Identify secure servers (padlock such as internet banking). Explain how to become increasingly savvy online consumers: know that algorithms are used to track online activities with a view to targeting advertising and information Critically evaluate websites for reliability of information/ bias and authenticity to include use of social media Demonstrate responsible use of online services and technologies, and know a range of ways to report concerns Produce formal or informal messages, appropriate to the task
Vocabulary	Log on, password, computer, age appropriate, personal information, private.	(As Before +) Respectful, concern, content.	(As Before +) Responsible, identify, recognise, benefits and risks, screen breaks, online.	(As Before +) Acceptable / unacceptable, email, texts, IM, chat rooms.	(As Before +) Copyright, images and audio, author, location, viewpoints, share, exchange, acknowledging	(As Before +) Critically evaluate, bias, authenticity, demonstrate, impact, uploading, plagiarism, legal,

					sources, digital footprint, privacy settings, appropriate, website extensions.	secure servers, consumers, targeting advertising.