

## Computing - Key Criteria Pupil Tracker

ARE - 1			Points - 1-4	
Skill	Taught	Support	Independent	Recall
I can create a series of instructions, e.g. to get a robot from A to B				
I can enter text on a device.				
I can save my work.				
I can navigate a safe website.				
I can use a camera.				
I can record sound and play back.				
I can use technology with care.				
I can tell you what personal information is				
I can recognise the ways we use technology in our classroom.				

ARE - 2			Points - 5-8	
Skill	Taught	Support	Independent	Recall
I can write and test a simple set of instructions.				
I can use a range of instructions (e.g. direction, and turns).				
I can predict what the outcome of a simple program will be (logical reasoning).				
I can correct mistakes in my instructions.				
I can find and open my work.				

I can use a search engine.				
I can use a camera to take a suitable image.				
I can explain why I need to keep my personal information private.				
I can recognise how technology is used inside and outside of school.				
I can tell you some benefits of using technology				

ARE - 3			Points - 9-12	
Skill	Taught	Support	Independent	Recall
I can design a sequence of instructions, e.g. including directional instructions.				
I can create programs to complete a task.				
I can experiment with variables (e.g. to control models).				
I can use repeat commands.				
I can find errors and amend them. (debug)				
I can design and create content for a purpose including text and images.				
I can use the spell checker				
I can open and edit my work.				
I can explain what a database is for.				
I use technology respectfully and responsibly.				
I can remember and use my				

password.				
I can follow an agreed code of conduct to keep safe online.				
I can tell you when it is better to use technology and where it adds little or no value.				
I can say what I like about my work.				

ARE - 4			Points - 13-16	
Skill	Taught	Support	Independent	Recall
I can describe what I think will happen in an algorithm.				
I can format text and graphics to share my ideas and learning.				
I can select and use software to accomplish given goals.				
I can explain if all the information on the internet is always reliable.				
I can create a simple animation.				
I can send and open an email.				
I can collect and present data in different ways.				
I can search a database.				
I can identify basic components that make up computer systems i.e. printer, mouse, keyboard				
I know what to do when I'm feeling uncomfortable online.				
I can explain how to improve my work.				

ARE - 5			Points - 17-20	
Skill	Taught	Support	Independent	Recall
I can use technology to control an external device.				
I can work with variables.				
I can design algorithms that use repetition including “if” and “then”				
I can use unfamiliar software to create content.				
I can organize my work by creating folders to store work.				
I can use a range of technology for a specific project.				
I can create a movie				
I can add an attachment to an email.				
I can analyse information and identify where it could be inaccurate				
I can search a simple database				
I can identify common input and output devices.				
I can identify a range of different methods to keep a device secure.				
I can identify ways I can protect myself and my friends from harm online.				
I can identify the strengths and weaknesses in my work.				

ARE - 6			Points - 21-24	
Skill	Taught	Support	Independent	Recall

I can explain how an algorithm works.				
I understand how numbers can be represented in binary				
I can select, use and combine software to complete a task.				
I can use a spreadsheet to record data and create appropriate graphs.				
I can create an email for the intended audience.				
I can create a database.				
I can identify different embedded and general computers				
I can describe different methods of storing data.				
I can discuss the risks of online use of technology and how to minimise them.				
I can identify how to minimise risks.				
I can explain the consequences of sharing too much about myself online				
I can discuss my use of technology i.e. mobile phone, games console and computers				
I can act upon feedback to improve my product				
I can explain how my product would change for a different audience				
I can manage files by using sensible filenames				

ARE - 7			Points - 25-28	
Skill	Taught	Support	Independent	Recall
I can solve a computational problem using programming language including 2 variables				
I can convert binary numbers into denary.				
I understand how text can be represented digitally in binary digits				
I understand how pictures can be represented digitally in binary digits				
I understand simple Boolean logic including AND, OR and NOT				
I understand how search results are selected and ranked.				
I can create appropriate digital content which includes sound				
I can create an animation using frames and layers for a special purpose.				
I can manipulate data by sorting and searching it for a directed purpose.				
I can modify an existing spreadsheet				
I can use software to model different scenarios (e.g. spreadsheets)				
I can list the internal hardware components of a general computer.				
I can list the software components that make up computer systems				
I understand how instructions are				

stored by computer systems				
I can recognise inappropriate content, contact and conduct online				

ARE - 8			Points - 29-32	
Skill	Taught	Support	Independent	Recall
I can explore 'what if' questions by planning different scenarios for controlled devices.				
I understand several key algorithms that reflect computational thinking				
I can demonstrate 2 methods of encryption.				
I understand how text can be manipulated digitally in the form of binary digits				
I understand how pictures can be manipulated digitally in the form of binary digits				
I understand how sounds can be represented digitally in binary digits				
I can create content for a particular purpose and familiar audience by editing existing digital content				
I can create a film using existing footage, images and sounds				
I can create a database using appropriate data structures				
I can use models to explore alternatives e.g. spreadsheet or simulator				
I can protect my online identity				
I can create and share guidance on				

keeping safe online				
I can give constructive feedback to others which allows them to improve their digital content				
I can discuss the impact on me of using technology.				

ARE - 9			Points - 33-36	
Skill	Taught	Support	Independent	Recall
I can develop modular programs that use functions or procedures				
I understand how sounds can be manipulated digitally in the form of binary digits				
I can show I understand the purpose of logic gates				
I can independently select applications which support me to create appropriate products				
I can create my own digital sounds which are appropriate for the purpose and audience they are intended for				
I can use layers to edit a digital image.				
I can perform more complex queries using 2 or more criteria				
I can plan a complex task using flowcharts or pseudocode or complex mind maps.				
I can explain the components that make up computer systems, what they are and why they are needed				
I know how to prevent health				



issues when using technology				
I know how to keep data safe and have an overview of the Data Protection Act				
I can discuss the impact of technology on society				
I can review my own performance as well as my work.				
I can use at least 2 programming languages (one of which is textual) to solve real world problems – such as traffic lights.				
I can identify 3 Local Area Network types.				

ARE - 10			Points - 37-40	
Skill	Taught	Support	Independent	Recall
I can independently use logical reasoning to detect errors in algorithms and debug them.				
I can create content which is fit for purpose and for the audience and discuss why.				
I can effectively find relevant information on the internet and make an informed judgment about its quality, reliability and relevance				
I can take and edit several forms of media (e.g. photos, animations or film) to meet user requirements and enhance products for the intended audience.				
I can manipulate data, or code, for a given purpose and comment on its plausibility, suitability and reliability.				

I can create my own project which uses appropriate formulae, functions and validation.				
I can identify the components (hardware or software) required to meet user needs				
I can discuss how instructions are executed by computer systems using technical language				
I can state ways to use technology safely and respectfully for both personal and professional uses				
I can explain the implications of the legislation that surrounds computer based technology.				
I can discuss the ethical implications of digital technology on society.				
I can give and receive constructive feedback, evaluate its usefulness and if appropriate, demonstrate acting upon it				
I can make a functional product for an unfamiliar audience based on their needs.				
I can manage files in a way which makes it easy for someone else to navigate the structure and find files				
I can discuss the key protocols and operation of Wide Area Networks.				

ARE - 11			Points - 41-44	
Skill	Taught	Support	Independent	Recall
I can use a programming language, or system, to solve a real world problem by identifying user needs				

and using efficient programming techniques				
I can design and annotate/record information to explain computational abstractions				
I can use "what if" questions to test my program/system and to ensure it meets the user's needs				
I can comment on the errors I have found, explaining what the error is, what it will cause to happen, and what needs to be changed to allow the program/system to function correctly				
I can create content which is fit for the audience and purpose and which uses accepted layout and conventions; analysing and discussing the reasons for the choices made.				
I can select and use multiple applications to produce a program or system for a given unfamiliar audience and purpose e.g. import/export				
I can discuss or demonstrate types of file format and how they interact with software.				
I can identify the components (hardware or software) required to meet user needs and discuss my reasoning.				
I can discuss the global implications of digital technology in the modern world relating to at least 2 current events.				
I can discuss and evaluate where computer systems can go wrong.				

