Year 2

Year 1

Reception

Nursery

THE 1590 TRUST

Bright, Proud, Successful

BPS BEWLEY PRIMARY SCHOOL

Year 2

Computing systems and networks – *Information and technology around us*
- What are the different types of computers used in school? What are the main parts of a computer and how do we use them safely?

Creating media – *Creating pictures and Making music*
- I can use a computer to compose a piece of digital music.
- What are the functions of 2Paint? I can create digital artwork based on different themes.

Programming – *Robot algorithms and Programming quizzes*
- I can create an algorithm to move a Beebot.
- I can use sequences and commands to program a quiz using ScratchJr.

Data and information – *Pictograms*
- What is data? What is an attribute and how can we use this to help us organise data? I can present data in the form of pictograms and will use these to answer questions.

Year 1

Computing systems and networks – *Technology around us*
- What are the different types of technology? How do you use a mouse and a keyboard?

Creating media – *Digital painting and Digital writing*
- How can computers be used to create art? What tools can be used to create digital art?
- I can enter text into a computer using a keyboard.

Programming – *Moving a robot and Programming animations*
- How do I move a floor robot using a simple algorithm? What are the different commands that I can combine together?
- I can use ScratchJr to create a program involving sprites and backgrounds.

Data and information – *Grouping data*
- Objects can be grouped together based on their attributes. How can this information be presented?
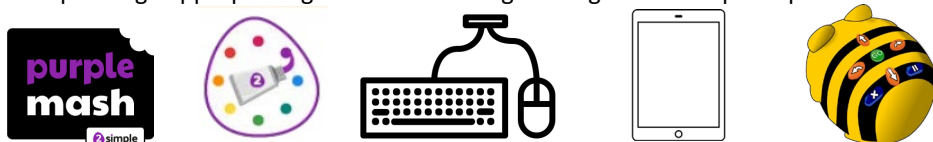
Reception

IT Skills
- I can turn on an iPad and desktop computer
- I can navigate the screen using a mouse and begin to use the right and left click for different actions
- I can confidently use the space bar and arrow keys to complete games and tasks.
- I know that information can be retrieved from the internet.

Creativity
- I can role-play using technology such as laptops, keyboards, phones, cameras and microphones.
- I can complete a topic related activity using Mini mash and 2Paint.

Problem Solving
- I can use programmable toys such as Bee-bots and understand that pressing the buttons causes them to move.
- I can complete age appropriate games and challenges using the desktop computers.

purple mash 2simple

Nursery

IT Skills
- I can turn on and operate simple equipment such as turning on a CD player or a camera.
- I can use a mouse and a keyboard on a desktop computer (space bar, arrow keys).

Creativity
- I can operate technological toys such as a wind up toy or pull back friction car.
- I can begin to understand the use of technology such as cameras, microphones, keyboards, laptops and phones.
- I am familiar with Purple Mash (2Paint) and can use it to paint pictures using an iPad or a desktop computer.

mini mash

Bright, Proud, Successful

Computing systems and networks – *Internet communication*
- How is data transferred over the internet? I can outline and evaluate methods of communicating and collaborating using the internet for given purposes. I can decide what should and should not share online.

Creating media – *Webpage creation and 3D modelling*
- What makes a good webpage? I can use Google Sites to design and evaluate my own website. I understand copyright and the fair use of media.
- Working in a 3D space, I can move, resize, and duplicate objects. I can create hollow objects using placeholders and combine multiple objects to create a model of a desk tidy.

Programming – *Variables in games and Sensing*
- What are variables and how do they relate to real world values that can be set and changed? I can create my own project in Scratch using variables.
- Using a micro:bit, I can complete projects drawing on all four programming constructs.

Data and information – *Spreadsheets*
- How are spreadsheets organised on Microsoft Excel? Why is formatting data important? I can use spreadsheets to plan an event and answer questions.

Computing systems and networks – *Sharing information*
- How is information transferred between systems and devices? I can explain input, output and process aspects of a variety of different real-world systems. I can contribute to a collaborative online project.

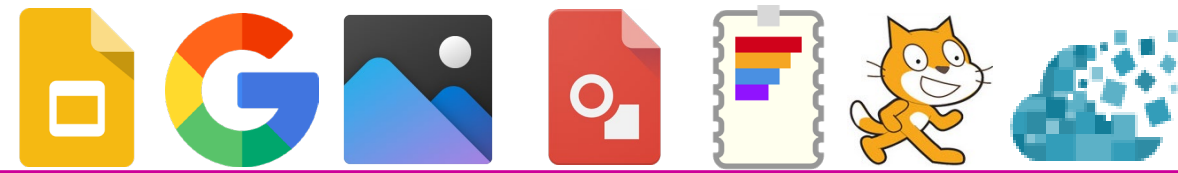**Creating media – *Video production and Vector drawing***
- I can capture, edit and manipulate video.
- What are the different drawing tools that help me create images? I can create vector drawings using lines and shapes.

Programming – *Selection in physical computing and Selection in quizzes*
- What are selections and conditions in programming? I can use a microcontroller (crumble) to connect and program components.
- I can use my knowledge of writing programs and using selection to control outcomes to design a quiz.

Data and information – *Flat-file databases*
- I can use tools within a database to order and answer questions about data. I can create charts and graphs from my data to solve problems.

Year 4

Computing systems and networks – *The Internet*
- The internet is a network of networks which need to be kept secure. I can evaluate content and understand what I can access, add, and create.

Creating media – *Making music and Photo editing*
- What are the different aspects of music which can be created on computers? I can electronically compose a piece of music.
- How can digital images be changed and edited? What impact does editing images have?

Programming – *Repetition in shapes and Repetition in games*
- What are repetition and loops within programming? I can create programs by planning, modifying and testing commands to create shapes and patterns.
- What are count controlled and infinite loops? I can create a game which uses repetition.

Data and information – *Spreadsheets*
- I can navigate rows, columns and individual cells on 2Calculate. How are cells formatted? I can add a basic formula to a cell.

Year 3

Computing systems and networks – *Email*
- What are the different methods of online communication? I can open and respond to an email using an address book.

Creating media – *Stop-frame animation and Desktop publishing*
- I can use a range of techniques to create a stop-frame animation using tablets.
- I can add text and images to create my own piece of work using desktop publishing software.

Programming – *Sequencing sounds and Events and actions in programs*
- What is sequencing? I can create my own project, based on a piano, which involves sequencing.
- What are the links between events and actions? I can design and code my own maze tracing program.

Data and information – *Branching databases*
- I can create an identification tool using a branching database. What are the real-world applications for branching databases?