AUTUMN N.C Objectives in bold	SPRING N.C Objectives in bold	SUMMER N.C Objectives in bold
AUTUMN 1: DESIGN, WRITE AND DEBUG PROGRAMS THAT ACCOMPLISH SPECIFIC GOALS, INCLUDING CONTROLLING OR SIMULATING PHYSICAL SYSTEMS; SOLVE PROBLEMS BY DECOMPOSING THEM INTO SMALLER PARTS *Coding – (unit 4.1 Purple Mash)* -To use selection in coding with the 'if/else' command. -To understand and use variables in 2Code. -To use flowcharts for design of algorithms including selection. -To use the 'repeat until' with variables to determine the repeat.	**SPRING 1: USE SEQUENCE, SELECTION, AND REPETITION IN PROGRAMS; WORK WITH VARIABLES AND VARIOUS FORMS OF INPUT AND OUTPUT** *Logo – (unit 4.5 Purple Mash)* -To learn the structure of the coding language of Logo. -To input simple instructions in Logo. -Using 2Logo to create letter shapes. -To use the Repeat function in Logo to create shapes. -To use and build procedures in Logo.	**SUMMER 1: USE SEARCH TECHNOLOGIES EFFECTIVELY, APPRECIATE HOW RESULTS ARE SELECTED AND RANKED, AND BE DISCERNING IN EVALUATING DIGITAL CONTENT** *Effective Searching (Unit 4.7 Purple Mash)* -To locate information on the search results page. -To use search effectively to find out information. -To assess whether an information source is true and reliable **UNDERSTANDING COMPUTER HARDWARE** *Hardware Investigators (Unit 4.8 Purple Mash)* -To understand the different parts that make up a computer. -To recall the different parts that make up a computer.
AUTUMN 2: USE TECHNOLOGY SAFELY, RESPECTFULLY AND RESPONSIBLY; RECOGNISE ACCEPTABLE/UNACCEPTABLE BEHAVIOUR; IDENTIFY A RANGE OF WAYS TO REPORT CONCERNS ABOUT CONTENT AND CONTACT *Online Safety (Unit 4.2 Purple Mash)* -To understand how children can protect themselves from online identity theft. -Understand that information put online leaves a digital footprint or trail and that this can aid identity theft. -To identify the risks and benefits of installing software including apps. -To identify appropriate behaviour when participating or contributing to collaborative online projects for learning. - To identify the positive and negative influences of technology on health and the environment.	**SPRING 2: SELECT, USE AND COMBINE A VARIETY OF SOFTWARE ON A RANGE OF DIGITAL DEVICES TO DESIGN AND CREATE A RANGE OF PROGRAMS, SYSTEMS AND CONTENY THAT ACCOMPLISH GIVEN GOALS, INCLUDING AND PRESENTING DATA AND INFORMATION.** *Animation – (unit 4.6 Purple Mash)* -To discuss what makes a good animated film or cartoon. -To learn how animations are created by hand. -To find out how 2Animate can be created in a similar way using the computer. -To learn about onion skinning in animation. - To add backgrounds and sounds to animations. - To be introduced to 'stop motion' animation. -To share animation on the class display board and by blogging.	**SUMMER 2: SELECT, USE AND COMBINE A VARIETY OF SOFTWARE (INCLUDING INTERNET SERVICES) ON A RANGE OF DIGITAL DEVICES TO DESIGN AND CREATE A RANGE OF PROGRAMS, SYSTEMS AND CONTENT THAT ACCOMPLISH GIVEN GOALS, INCLUDING COLLECTING, ANALYSING, EVALUATING AND PRESENTING DATA AND INFORMATION** *Spreadsheets (Unit 4.3 Purple Mash)* -To format cells as currency, percentage, decimal to different decimal places or fraction. -To use the formula wizard to calculate averages. To use -To combine tools to make spreadsheet activities such as timed times tables tests. To use a spreadsheet to model a real-life situation. -To add a formula to a cell to automatically make a calculation in that cell.

-To understand the importance of balancing game and screen time with other parts of their lives. **SELECT, USE AND COMBINE A VARIETY OF SOFTWARE ON A RANGE OF DIGITAL DEVICES TO DESIGN AND CREATE A RANGE OF PROGRAMS, SYSTEMS AND CONTENY THAT ACCOMPLISH GIVEN GOALS, INCLUDING AND PRESENTING DATA AND INFORMATION.** *Writing for different audiences (Unit 4.4 Purple Mash) Combined with work from Online Safety Unit.* -To explore how font size and style can affect the impact of a text -To write a leaflet about online safety for a child of their age		

KNOWLEDGE TO BE LEARNED BY THE END OF EACH UNIT (WHAT DO WE WANT THE CHILDREN TO KNOW AND REMEMBER?

AUTUMN TERM	SPRING TERM	SUMMER TERM
AUTUMN 1 -An **if/else command** can be used in a program where the computer will decide which command to perform depending on whether a statement is true or not. - A **variable** is part of the program which can change while the program is running. -The use of a **flow chart** is a way of planning a computer program. -A **'repeat until'** command will be repeated until a condition is met.	**SPRING 1** - **Logo** is a text-based coding language used to control an on screen turtle to create mathematical patterns. -A **Repeat command** is set of instructions that is run a specified number of times. - **Pen Down** lowers the screen pen so the 2Logo turtle draws a line on the screen. -**Pen Up** raises the screen pen so the 2Logo turtle doesn't draw on screen. - A **prediction** is when you say what is going to happen when you run the instructions.	**SUMMER 1** - The **Internet** is a global computer network providing a variety of information and ways to communicate. - The **results page** is where the answers to a search are displayed. - **Reliability** is how much something can be depended on to be accurate. **SUMMER 2**

AUTUMN 2	SPRING 2	
-**Personal information** is information that can be used to identify, locate, or contact someone. -If we share this online, it can make us vulnerable to being harmed. -**Identity theft** is when someone uses our personal information to pretend to be us.	-**Animation** is the process of adding movement to still objects. - A **frame** is a single image in an animation. - **Onion Skinning** is a process where the shadow image of the previous frame is present to help you line up the objects of the animation correctly.	- A **spreadsheet** is a computer program that represents data in cells in a grid of rows and columns. - A **column boxes running** is a series vertically in a spreadsheet. - A **Chart** is a diagram that represents data. Charts include graphs and other diagrams such as pie charts or flowcharts. .

Children working at below Age Related Expectations in COMPUTING at the end of Year 4: