Bakewell Methodist Junior School

Computing

Year Group	A1	A2	Sp1	Sp2	Su1	Su2
Lower KS2 Block A	Online Safety		Programming turtle logo and scratch		Presentation skills	
Lower KS2 Block B		Online Safety		Scratch		Animation
Upper KS2 Block A	Online Safety		Kodu		Spreadsheets	
Upper KS2 Block B		Online Safety		Scratch		Know your Network

Breadth of study

• Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
• Use sequence, selections and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
• Use logical reasoning to explain how a simple algorithm works, detect and correct errors in algorithms and programs.
• Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
• Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.
• Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Threshold Concepts
- **Code**

This concept involves developing an understanding of instructions, logic and sequences.
- **Connect**

This concept involves developing an understanding of how to safely connect with others.
- **Communicate**

This concept involves using apps to communicate one's ideas.
- **Collect**

This concept involves developing an understanding of databases and their uses.

Threshold Concept		Milestone 2 LKS2	Milestone 3 UKS2
Code This concept involves developing an understanding of instructions, logic and sequences.	Motion	• Use specified screen coordinates to control movement.	Set IF conditions for movements. Specify types of rotation giving the number of degrees.
	Looks	• Set the appearance of objects and create sequences of changes.	• Change the position of objects between screen layers (send to back, bring to front).
	Sound	• Create and edit sounds. Control when they are heard, their volume, duration and rests.	• Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation.
	Draw	• Control the shade of pens.	• Combine the use of pens with movement to create interesting effects.
	Events	• Specify conditions to trigger events.	• Set events to control other events by 'broadcasting' information as a trigger.
	Control	• Use IF THEN conditions to control events or objects.	• Use IF THEN ELSE conditions to control events or objects.
	Sensing	• Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions).	• Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions.
	Variables and lists	• Use variables to store a value. • Use the functions define, set, change, show and hide to control the variables.	• Use lists to create a set of variables.
	Operators	• Use the Reporter operators () + () () - () () * () () / () to perform calculations.	• Use the Boolean operators () < () () = () () > () ()and() ()or() Not() to define conditions.
Connect This concept involves developing an understanding of how to safely connect with others.		• Contribute to blogs that are moderated by teachers. • Give examples of the risks posed by online communications • Understand the term 'copyright'. • Understand that comments made online that are hurtful or offensive are the same as bullying. • Understand how online services work.	• Collaborate with others online on sites approved and moderated by teachers. • Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems. • Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder.

			• Understand the effect of online comments and show responsibility and sensitivity when online. • Understand how simple networks are set up and used.
Communicate This concept involves using apps to communicate one's ideas.		• Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.	• Choose the most suitable applications and devices for the purposes of communication. • Use many of the advanced features in order to create high quality, professional or efficient communications.
Collect This concept involves developing an understanding of databases and their uses.		• Devise and construct databases using applications designed for this purpose in areas across the curriculum.	• Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.