Computing Overview

Key Concept		Y1 & Y2	Y3 & Y4	Y5 & Y6
Code This concept involves developing an understanding of instructions, logic and sequences.	Motion	• Control motion by specifying the number of steps to travel, direction and turn.	• Use specified screen coordinates to control movement.	• Set IF conditions for movements. Specify types of rotation giving the number of degrees.
	Looks	• Add text strings, show and hide objects and change the features of an object.	• 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	• Select sounds and control when they are heard, their duration and volume.	• 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 when drawings appear and set the pen colour, size and shape.	• Control the shade of pens.	• Combine the use of pens with movement to create interesting effects.
	Events	• Specify user inputs (such as clicks) to control events.	• Specify conditions to trigger events.	• Set events to control other events by 'broadcasting' information as a trigger.
	Control	• Specify the nature of events (such as a single event or a loop).	• 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 waiting for a user input (such as responses to	• Create conditions for actions by sensing proximity or by waiting for a user input	• Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to

		questions like: What is your name?).	(such as proximity to a specified colour or a line or responses to questions).	control events or actions.
	Variables and lists	• From Year 3 onwards.	• 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	• From Year 3 onwards.	• Use the Reporter operators () + () () - () () * () () / () to perform calculations.	• Use the Boolean operators () < () () = () () > () ()and() ()or() Not() to define conditions. • Use the Reporter operators

				() + ()

() - ()

() * ()

() / ()

to perform calculations.

Pick Random () to ()

Join () ()

Letter () of ()

Length of ()

() Mod () This reports the remainder

after a division calculation

Round ()

() of (). |

| **Connect** This concept involves developing an understanding of how to safely connect with others. | | • Participate in class social media accounts.

• Understand online risks and the age rules for sites. | • 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. |
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Communicate This concept involves using apps to communicate one's ideas.		• Use a range of applications and devices in order to communicate ideas, work and messages.	• 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.		• Use simple databases to record information in areas across the curriculum.	• 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.