Subject- Computing

Threshold Concepts and Milestones

Threshold Concept		Year 3	Content
Code This concept involves developing an understanding of instructions, logic and sequences.	**Motion**	• Use random position to control movement.	• Children create games with advanced conditional events in which when 1 object touches another, it will change to a new random position.
	Looks	• Set the appearance of objects and create sequences of changes.	• Children select their own objects to add to a game app and begin to animate collisions of objects in espresso coding. • Children create short animations using stop frame in Imovie or the "2animate" app in Purple Mash.
	Sound	• Create and edit sounds. Control when they are heard.	• Children add and create sound effects in conjunction with appsthey produce in espresso coding. • Children add sound effects and music to short animations in Imovie and the 2animate app in Purple Mash.
	Draw	• Control pens.	• Children create short animations using stop frame in Imovie or the "2animate" app in Purple Mash (painted images will involve pen control and manipulation)
	Events	• Specify conditions to trigger events.	• Children cover advanced conditional events in Espresso Coding unit 3B • Children create branching databases in PurpleMash
	Control	• Use IF THEN conditions.	• Children cover advanced conditional events in Espresso Coding unit 3B

			• Children create branching databases in PurpleMash
	Sensing	• Create conditions for actions by sensing proximity.	• Children code racing apps with events to prevent vehicles passing through walls and other objects.
	Variables and lists	• Use variables to store a value. • Use the functions define, set, change, show and hide to control the variables.	• Children create interactive games using espresso coding. • Children create spreadsheets using Purple Mash
	Operators	• Use the Reporter operators () + () () – () () * () () / () to perform calculations.	• Children explore spreadsheets in Purple Mash and how they can be used to perform calculations.
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.	• Children use the 2blog app to share ideas about topic investigations. • Children respond to pre generated emails that simulate spam, malware, cyber bullying and fishing. • Children conduct online research and consider the ownership of information and images found online.
Communicate This concept involves using		• Use some of the features of applications and devices	• Children are introduced to touch typing

apps to communicate one's ideas.		in order to communicate ideas.	• Children complete a simulation within PurpleMash where they work in a virtual newspaper office following a story. • Animate it/Imovie creation.
Collect This concept involves developing an understanding of databases and their uses.		• Construct databases using applications designed for this purpose.	• Using branching databases in PurpleMash