St James' Church of England Primary School
Computing Overview Sheet

Year 5 – 5.3 Spreadsheets

Prior and Future Learning Links:
Year 6 – **Spreadsheets -** Spreadsheets for computational models **Spreadsheets with MS Excel or Google Sheets -** Modelling and problem solving
Year 4 – **Spreadsheets -** Timer, random number and spin buttons:
Year 3 – **Spreadsheets -** Timer, random number and spin buttons **Graphing** - Data representation in 2Graph

Learning Objectives:
· To review existing coding knowledge.
- To understand what a simulation is.
- To take a real-life situation, decompose it and think about the level of abstraction.
- To begin to understand what a function is and how functions work in code.
- To understand what the different variable types are and how they are used differently.
- To begin to explore text variables when coding

Overview:
Lesson 1: Coding Efficiently
Lesson 2: Simulating a Physical System
Lesson 3: Decomposition and Abstraction
Lesson 4: Friction and Functions
Lesson 5: Introducing Strings
Lesson 6: Text Variables and Concatenation

Cross Curricular Links

Resources
• iPada • Purple Mash Login Details

Impact/Assessment

Most Children will: Throughout this unit, children will be tasked with creating spreadsheets which are contextualised and evaluating them. Most children can use suitable layouts and content (and explain this) which achieve a specific goal, such as creating a spreadsheet to work out the area and perimeter of rectangles (Lesson 3). Their layouts and contents will be fit for purpose for their intended audience, such as applying graphs to represent data (Lesson 2). Children will use, manipulate, and create spreadsheets within this unit. Their improving skill of using text variables to perform calculations, advanced mode and count tools will lead to the creation of their own purposeful spreadsheet. Children will invite feedback through sharing their spreadsheets, focusing on the functionality, layout, clear purpose and whether it achieve it.

Less Able Children will: With support throughout, children can create a simple formula with limited success using 2Calculate that converts metres into centimetres (Lesson 1). Children understand what a variable is and can program a variable that converts weeks into years (Lesson 4). Furthermore, they can represent their data as a simple graph (Lesson 2).

More Able Children will: Children demonstrating greater depth can use their understanding of converting metres into centimetres and apply this to other mathematical conversions (Lesson 1). Furthermore, they choose the most appropriate way to convert and represent their data and can give their reasons behind this choice (Lesson 2)