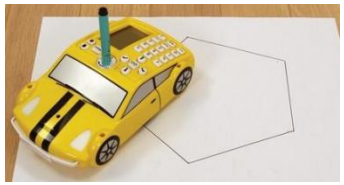
St Paul's Church of England Primary School

"Don't let anyone look down on you because you are young but set an example for the believers in speech; in conduct; in love; in faith and in purity."
(1 Timothy 4:12)

Subject: Computing	Year group: 4 Term: Summer 2	Title: Programming

What should I know?

- How to plan and write simple programs
- The difference between an input and an output devices and how they can be used
- That computers can collect data from various inputs
- That evaluation is a vital part of the design process
- How to control physical devices.
- That logical reasoning means detect and correct errors in programs
- What the terms sequence and repetition mean and know how to use them in programs



Facts I will learn …

- How to plan and write programs that accomplish specific goals
- That computers can collect data from various inputs
- What debugging is and how it can be used to achieve specific goals
- That planning/evaluation is a vital part of designing programs
- How to use logical reasoning to detect/correct errors in programs
- To begin to understand selection in computer programming
- How IF statements work
- How to use co-ordinates in computer programming
- How to use the "repeat until" command
- Understand how the IF/ELSE statements work
- Understand what a variable is in programming
- To use a number variable
- To create a playable game

Key questions …

- What is the goal I want to accomplish?
- What are the different inputs that I can use to transfer data onto a computer?
- How can logical reasoning help me to detect and correct errors in programs?
- Why is it important to plan and evaluate the effectiveness of a program?
- How can I use debugging to achieve a specific goal?
- Can you explain the stages of the design, code, test, debug coding process?
- What does selection mean in coding and how can this be achieved?
- How can variables and if/else statements be useful when coding programs with selection?

Key Skills…

- To write programs that accomplish specific goals
- To read what a sequence in a program does
- To design programs, showing skills needed to plan and implement a task/problem that accomplish specific goals
- To create programs that implement algorithms to achieve specific goals
- To debug programs that accomplish specific goals through self and peer assessment
- To use sequence, repetition and selection in programs
- To use sequences of commands to control physical devices using outputs
- To use and debug programs that control physical devices
- To use logical reasoning to detect and correct errors in programs

Experiences that school may provide:

- The opportunity to take part in both practical and computer based programming activities

Key vocab	Definition
Repetition	When part of a program repeats itself. For example, in animation you may repeat the movements of a character to make it look like it's moving along.
Debug	Debugging is checking the code in a computer program to ensure it works, and changing it if it doesn't.
Selection	Selection is a decision command. When selection is used, a program will choose which bit of code to run depending on a condition
Command	To order or instruct
If/Else Statement	A conditional command. This tests a statement. If the condition is true, the commands inside the 'if' box will run. If the

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	condition is not met, the command in the 'else' block will run.
Ownership	The state of having legal control of something
Repeat Until	This command will repeat a block of commands until a condition is met
Variable	Something that is subject to change