

Lyng Primary School Knowledge Organiser

Computing

Topic: Computing



Autumn 1

Scratch – How can code be used to create a game?

Year 5

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| What Goldilocks and Step On words will I use? |
| **Spelling** | **Defintion** |
| Algorithm | A precise set of instructions that will reach a desired outcome.  |
| Code | A set of rules or instructions. It is made up of words and numbers and when in the correct order, it will tell the computer program what you want it to do. |
| Sprite | The name given to a character in your project |
| Backdrop | The selected or designed background for your project. |
| Block | The sections of code which can be selected to code. |
| Test | When you run your code to check it works. |
| Events | Something that causes a block of code to run |
| Sequence | This is when a computer program runs commands in a set order  |
| Repeat | This command allows a block of code to run a set number of times or forever |
| Variable | A named area in computer memory. It has a name and a value. |
| Debug  | Looking for any errors in the code, fixing and testing them. |

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**Aims of this unit**

* Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.
* Solve problems by decomposing them into smaller parts.
* Use sequence, selection and repetition in programs; work with variables and various forms of input and output.
* Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
* Use Scratch to create and debug:
* A simple maze game
* Develop characters and backdrops
* Add effects including sounds and scoring
* Change costumes
* Add varying difficulty to levels

**Safeguarding**

Filtering and monitoring system is in place. Children will use their own log in details to track any misuse and to protect the child from harmful websites and pop ups. Children will be reminded of how to stay safe online and to use technology safely and respectfully and to tell a trusted adult if there is anything on their computer that makes them uncomfortable. When using the iPads, the monitoring software will track which iPad has been used to enable us to know which class has used the iPad.



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| Outcomes |
| **All children** * Move and edit blocks as part of an algorithm

**Most children*** Program an algorithm as a sequence of game instructions with actions and consequences

**Some children*** Add additional effects and features such as sounds or point scoring, to enhance the appeal of a game.
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Autumn Term

Code using Scratch

**In this unit…**

The children will develop their own algorithms as well as debugging existing codes.

**Agreed outcome:**

Use Scratch to develop a maze game which have progressively harder levels.