

Lyng Primary School Knowledge Organiser

Computing

Topic: Computing



Robotics: What different things can we construct and program for a purpose?

Summer 1

Year 5

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| What Goldilocks and Step On words will I use? |
| **Spelling** | **Defintion** |
| Sequence | Order that commands are executed by a computer |
| Output | Any information that is processed by and sent from a computer |
| Input | Data that a computer receives |
| Conditional | Statements, expressions, constructs – features of a programming language which perform different computations or actions depending on whether a programmer specificies boolean conditions = true/fale |
| infrared | Method of transferring data without the use of wires |

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**Aims of this unit**

* Lego – Hazard Alarm. Engino – Space exploration.
* 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.

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| Outcomes |
| **All children** * Explore different weather related hazards
* Create and program a device
* Use REPEAT statements

**Most children*** Use IF/THEN statements
* Explore leg type motions
* Explore infrared.

**Some children*** Present and document your solutions and explain how it helps.
* Use IF/WHILE statements
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Summer Term

Robotics

**In this unit…**

The children will develop their communication, teamwork and flexibility skills while being creative.

**Agreed outcome:**

Use different coding platforms to program a range of robotic equipment