



Law and Order – Keeping the Peace

How do algorithms make 3D games work?

What will we be learning in Computing?

- To know how to use logical reasoning to explain how some simple algorithms work
- To detect and correct errors in algorithms and programs
- To design, write and debug programs
- To create a 3D world within a program
- To Identify and use selection

What will we be doing in Computing?

- We will investigate the program purple mash and discover how it can be used to create a 3D world using a computer program
- We will explore the different tools
- We will recap using algorithms from previous learning and use the selection tool to run part of the program using commands IF/WHEN/THEN
- We will represent the algorithms in a flow chart
- We will create a 3D game using a computer program.

Prior Learning:

Give instructions to make things happen – Land Ahoy! (Year 2)

Future Learning:

Debug programs – Under the Canopy (Year 4)
Create and refine sequences of instructions – A World of Bright Ideas (Year 6)

Words you will be using

algorithm

A step-by-step process followed to complete a task.



flowchart

A visual diagram that shows the steps of a process from beginning to end.

coding

Using a set of instructions to communicate with computers.

repetition

To reuse a word or phrase multiple times.

loop

Things that repeat.



command

A type of sentence in which someone is being told to do something.

debug

To fix a problem in the programming of a computer game/program

programming

Write a group of instructions for a computer.

logical reasoning

Being able to solve a problem in a sensible and ordered way.

abstraction

Helps you to make a program simple, by taking out unimportant information.





Under the Canopy

How can I use my ICT skills to investigate temperature?

What will we be learning in Computing?

- Identify how ICT can be used to collect and structure information, so that it can be searched and analysed
- Capture, record and analyse data using sensors in order to support observations and investigations
- Save and use stored information to follow lines of enquiry

What will we be doing in Computing?

- We will be conducting an investigation into temperature.
- We will make predictions about our investigation.
- Then we will record findings in graphs or charts.
- We will learn how to analyse our findings to understand if we could have done anything better.

Prior Learning:

Use a variety of ICT tools to present work in different ways – Athens V Sparta (Year 3)

Future Learning:

Use a variety of ICT tools to create, refine and present work in a variety of digital formats – Mission Control (Year 5)

Words you will be using:

data

The word used to describe information e.g. facts, numbers, observations.

data logger

A device used to record data over time.



software

The programs, or instructions that tell the device what to do.

input

Information that is 'put in' to something. This is usually used when adding information to a computer.

output

Information that comes out of something. This is usually used when information comes out of a computer.

device

An object that has been invented for a particular purpose.

investigate

To observe or find out about something to learn how it happens.

sensor

An object that detects events or changes in its environment.

plot chart

A type of graph that represents the data collected from an investigation.

monitor

To watch or keep track of something that is happening.

temperature

The amount of heat in something.

