

# Computing

## Unit One - Microsoft Products and E-Safety

Use word and email software effectively.

Create simple spreadsheets using formulas.

Produce a leaflet using Publisher software.

Create a professional PowerPoint presentation.

Use Access to create tables and queries.

Understand issues of online crime and laws to prevent this.

Understand online Safety issues and how to report/prevent these issues.

## Unit Two - Computer Systems

Understand sensors, input and output devices.

Identify and explain computer components.

Understanding binary conversions with ASCII.

Be aware of health-related problems when using computer equipment.

Be able to use variables and functions.

Explain the following network structures LAN, WAN, Wireless and Topologies.

Understand the role of an operating system.

Be able to recognize the different types of computer networks.

Complete Assessment.

## Unit Three - Computer Systems and Programming

Be able to use basic functions in Scratch.

Be able to create a simple Scratch game.

Be able to use variables and functions.

Be able to use basic Python syntax using code combat.

Understand the development of game consoles and corresponding games.

Assessment – create a complete working Scratch game using techniques learnt.

## Unit Four - Programming and Data Representation

Understand binary representation and logic gates.

Be aware of Utility Software.

Use decomposition to break down a problem.

Use Python to program basic instructions.

Use Python to use input, print and variables.

Create a basic functional Python story with options.

## Unit Five - Programming

Be aware of datatypes and variables in python.

Program in Python using the sequence programming strategy.

Program in Python using the selection programming strategy.

Program in Python using the Iteration programming strategy.

## Unit Six - Networking and Data Representation

Know the difference between a LAN and WAN.

Be aware of different topologies in Networks.

Know different network security threats and how to stop them.

Be able to convert between binary and denary.

Be aware of how sound and graphics are stored

Complete End of Year Assessment