

Year 5 Computing



Unit 1 Keeping yourself safe

- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Unit 2 Around the world

- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.

Unit 3 Creating documents

- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Unit 4 Excel

- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Unit 5 PowerPoint

- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Unit 6 Kodu-

Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

-Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

Year 6 Computing



Unit 1 Spy School

- Introduces spreadsheets including basic formula, the Sum, Average, Min and Max functions, replicating formulae with AutoFill, creating graphs and absolute and relative cell references. Higher ability students also look at further functions and advanced features such as conditional formatting.

Unit 2 Shakespeare Comic Book

- Allows pupils to work in teams to use a digital camera to re-enact the Shakespeare play "Macbeth". The images are then combined to make a comic book to tell the story.

Unit 3 Pivot Stick Animation

- Plan, create and evaluate animations using Pivot Stick Animator including making a figure interact with a background image and trying to make the figure move in a natural manner.

Unit 4 Adventure Story

- Create an interactive presentation where the user decides on the route through the presentation. Pupils plan, create and evaluate the stories and use hyperlinks to make the story interactive.

Unit 5 Repeating Patterns

- A short unit allowing pupils to explore creating graphics using Paint and applying a variety of effects to images to create pop art style images.

Unit 6 Analysing Data and Asking Questions

- Using simple flat-file databases to answer questions as well as an online database. They then create their own family quiz and research the answers to the questions using the internet.

Year 7 Computing



Unit 1 Visual Scratch Programming

- This unit of work teaches an introduction to programming using the Scratch programming language. Students will be introduced to programming inputs, variable storage, outputs, sequencing and selection.

Unit 2 Computer Hardware

- The computer hardware unit is designed to teach students what a computer system is, the various components of a computer system and their purpose. Students will also learn about the purpose of the CPU, RAM, Hard Drive and I/O devices and how they all function together and the function of the CPU, including the fetch, decode, execute cycle.

Unit 3 Introduction to HTML

- This unit teaches the basics of HTML enabling students to create a mini website. Students learn how to add text, images and hyperlinks, plus formatting techniques including fonts, text size and alignment.

Unit 4 Scratch Game Maker

- Students learn how to create some simple gaming scripts including key controlled movement, gravity, object collisions and scoring systems in order to make their very own platform games.

Unit 5 Advanced Scratch

- The 'Advanced Scratch' unit introduces students to event driven programming. Students will recap basic programming constructs including selection and iterations to produce a 'Magic 8 Ball' program.

Unit 6 Micro:Bit Madness

- This unit introduces students to the Micro:Bit device and teaches them how to program a variety of applications including a digital dice, digital compass and games console (pong). The unit uses both the 'Blocks' and 'Python' programming language.

Year 8 Computing



Unit 1 My Digital World

- In this unit of work, students will learn how to use the internet safely and effectively. They will learn about copyright law, search engines (including the use of Boolean logic for effective searching) and they will also learn about the dangers of the internet and ways to combat these dangers.

Unit 2 Binary Bits and Bobs

- Binary Bits and Bobs introduces students to the binary number system, converting between binary and denary and simple binary addition. Students will also be taught how (and why) characters, images and sound are represented by the binary system.

Unit 3 Introduction Python

- In this unit, students will be introduced to programming in the Python programming language. They will learn how to print messages to the screen, ask the user to input data and stores this data in variables. They will also understand how computers make decisions and consequently learn how to program IF statements.

Unit 4 HTML and CSS

- Students will be reminded of some basic HTML syntax (as covered in the year 7 unit) and will be introduced to CSS so that they can understand how to better present their webpages. They will learn how to add gradient backgrounds, add page borders, curve images and reorganise content on the page with the help of DIV tags.

Unit 5 Scratch Shooter Game

- In this unit, students will create a platform shooter game. They will learn how to implement gravity in their games as well as code a simple shooter (along with levels and other gaming features).