Unit 1

Introductory Unit Inc. E-safety

This unit prepares year 5 pupils, who have moved from primary to middle school and may be logging onto a large school network for the first time. Pupils are introduced to the idea of using networks, email and are taught about how to stay safe online.

Unit 2

Creating Documents

Pupils will 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 3

Kodu

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

Unit 4

Excel

This unit serves as an introduction to using and designing spreadsheets. Pupils will correctly identify cell references and enter data. They will be able to explain how different types of data will appear in a cell and explain why people use spreadsheets.

Unit 5

Scratch Beginners

Pupils will design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems and solving problems by decomposing them into smaller parts. They will use sequence, selection, and repetition in programs; work with variables and various forms of input and output.

Unit 6

Scratch Experts

Pupils will make a sprite move around the screen and bounce off the edges of the screen using a Forever loop. They will be able to explain the difference between a Forever and a Repeat loop and use an 'If statement' to make a decision.

Unit 1

Shakespeare Comic Strip

This unit combines classic literature and modern technology to create a photo based comic book to tell the story of Macbeth. It allows the pupils to practice the entire production lifecycle from planning the images they want to create, creating the comic book itself and then peer and self-evaluations.

Unit 2

Binary and Control

This unit introduces pupils to the concept of binary. They will become familiar with the denary system (base 10) and the binary system (base 2). The students practice converting both from binary to denary and from denary to binary. They also look at how control technology is used in the modern world and they create a presentation to show what they have learnt about control technology.

Unit 3

Spy School

This unit teaches the pupils about the basics of using a spreadsheet. It introduces them to the concepts of entering numbers and text, formatting data, formula (+,-,* and /), Functions (Sum, Average, Min, Max), sorting and filtering data, using comparison operators (<, >, <=, >=, = and <>).

Unit 4

Repeating Patterns

This unit allows the students to get creative whilst exploring symmetry and making patterns from repeating images. They use a basic graphics package to create images, looking at some of the main tools in the package. They then import this into a presentation package to create an overall pattern.

Unit 5

Adventure Story

This unit encourages pupils to think systematically and logically in a fun and engaging manner. They plan, create and evaluate an interactive story using a presentation package. The students create a presentation which includes buttons to allow the user to jump to different slides.

Unit 6

E-Safety

This unit teaches the pupils about how to stay safe when using the internet and social networking websites. They look at the effects of cyber bullying and what to do if they are being bullied or see somebody else being bullied. They also learn about the dangers to their technology including viruses, worms and Trojans. The students work together in groups to create an advertising campaign about what they have learnt; including a TV advert, leaflet and presentation which they will present to the rest of the class.

Unit 1

Do Aliens Exist

This unit covers a multitude of skills including performing secondary research using the internet and paper sources and primary research creating a questionnaire and analysing the results in a spreadsheet. The pupils will then plan, create and evaluate a 3 fold brochure to show their findings from the research and explain whether they think aliens exist.

Unit 2

Technology

This unit introduces pupils to some technological terminology and the history of computing. They will learn about hardware including input, output and storage devices. They will also look at software including operating systems, applications software and utilities software. They will learn about the main phases in the development of computers from the abacus to the present day and finally the development of the internet and cloud computing.

Unit 3

Sound Effect Story

In this unit, the pupils work in teams to plan, create and evaluate stories using sound effects. They will try to record their own original sound effects and narrations, as well as using sound effects from other sources. They will edit the sounds together using sound editing software to make a story of their own choice. They will then evaluate the other teams' stories and suggest improvements that could be made. This unit allows the pupils to become familiar with the entire product development life cycle, sound editing skills and develop team work and leadership skills.

Unit 4

In this unit the pupils learn about using a relational database. They create a simple flat file database and look at data types and properties. They also create queries including basic criterion, multiple criteria and logical operators. They use a relational database, understand what primary keys are and one- to-many relationships.

Unit 5

Bringing History to Life

In this unit pupils will work in teams to create stop frame animations to teach other pupils about a historical event. They will research the historical event, plan the animation, film it using a webcam and stop frame animation software and finally evaluate their work and the work of other groups.

Unit 6

Scratch

Pupils will learn how to draw algorithms to plan code, create loops, 'If - Then - Else statements', use variables and broadcast messages. They will practice making several different types of games and finally plan, create and evaluate their own game about healthy eating.

i.c.t - Year 8

Unit 1

Google Sketch Up

Pupils will explore a very powerful 3D modelling software called 'google Sketch up'. With the aid of online tutorials and videos, pupils will develop independent learning skills whilst they plan and sculpt out a 3D model of their dream house. Once they have completed their designs they will decorate and fill their world by importing premade objects such as furniture, cars, swimming pools etc.

Unit 2

Lake Garda Project

This unit covers a multitude of skills including performing research, teamwork and creating a variety of documents and a TV advert. The pupils will develop a clear understanding of the target audience and purpose and the development life cycle as they will plan, create and evaluate each other's work.

Unit 3

Python

This unit teaches the pupils the basics of programming using Python. They create a variety of coded solutions to simple problems and use variables, data types, If statements, advanced If statements and loops. This unit helps the pupils learn about computational thinking skills and planning code and is the perfect introduction to more advanced programming and builds on what they learnt in Scratch.

Unit 4

Networks

The pupils learn the hardware and software involved in networks, the star, ring and bus topologies as well as learning more about what a network administrator does and using tools such as IPCONFIG and PING. They also learn about security dangers such as spyware, viruses and worms and how to avoid them.

Unit 5

ICT in Shops

This unit focuses the pupils on how ICT is used in society and how it affects our everyday lives. In particular this unit looks at ICT in shops and introduces the pupils to EPOS, EFTPOS, visual merchandising, magic mirror, wireless technology, stock control, barcodes, loyalty cards and the digital divide. They will work as a team to produce a presentation, play or story about what the shopping experience will be like in 15 years' time and discuss how ICT is changing the way in which we shop.

Unit 6

Scratch Experts

Pupils will make a sprite move around the screen and bounce off the edges of the screen using a Forever loop. They will be able to explain the difference between a Forever and a Repeat loop and use an 'If statement' to make a decision.