Y4 Computing

Pupils should be taught to:

- 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
- 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
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- 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
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

E = evidence work for computing book

Autumn 1 Word Processing
• Ingenious images – format images for the context of creating a poster E
• Learn the layout – use formatting tools to create an effective layout
• Super spelling – use the spellcheck tool
• Time for tables – insert and format a table in a word processing document (Microsoft word)
• Transform a layout – change a page layout for a purpose
• Hyperlinks in e-vouchers – create hyperlinks within a word document E

Additional lesson to be covered in Autumn 1: Using and Applying Project Lesson 1

Autumn 2 Scratch: Questions and Quizzes
• Questions and answers – compare quizzes and decompose a problem into smaller parts and write and debug a program
• A short quiz – write and debug a program using sequence and selection E
• Changing the Sprite – write and debug a program which uses sequence and repetition and working with variables
• Additional effects – write and debug a program which uses sequence and working with variables
• Scoring – write a program by creating a scoring system for a quiz and working with variables

• Creating your own quiz! – Design, write and debug own program by selecting appropriate visual block commands to create a sequence E

Additional lesson to be covered in Autumn 2: Using and Applying Project Lesson 2

Spring 1 Online Safety
• Cyberbulling – identify how a message can hurt someone's feelings and say how to respond to a hurtful message online
• Super searchers – use a search engine accurately
• Copycats! – understand the term 'plagiarism' and how to avoid it E
• Too much information? – create a safe online profile
• The online community – explain how to be a responsible digital citizen
• Cyber superheroes – create an online safety superhero character E

Additional lesson to be covered in Spring 1: Using and Applying Project Lesson 3

Spring 2 Programming Turtle Logo
• Procedures – using Turtle Logo, create and debug an algorithm to create a procedure
• Setpos – using Turtle Logo, create and debug an algorithm that uses setpos to draw shapes E
• Colours – using Turtle Logo, create and debug an algorithm with different colours
• Fill – using Turtle Logo, create and debug an algorithm to fill areas with colour
• Label – create and debug an algorithm to produce text E
• Arc – create and debug an algorithm to draw arcs

Additional lesson to be covered in Spring 2: Using and Applying Project Lesson 4

Summer 1 Animation
• History of animation – describe early forms of animation before computers and how computers have made a difference E
• Stick figure animation – create a short computer animation using one or more moving stick figures
• Recording movement of characters – create a recorded animation involving a number of moving characters on a background
• Structured timing – structure specific timing of animations using a time slider
• Stop-motion animation – use a camera to create a short stop-motion animation film
• Evaluating animation techniques – evaluating and comparing different animation software or techniques E

Additional lesson to be covered in Summer 1: Using and Applying Project Lesson 5

Summer 2 Communication and Collaboration
• Communicating online – explore the different ways we can communicate online
• Exploring email - understand what email is and how it is used
• Email expert - understand how to send and receive emails
• Adding attachments - use the features of email to communicate with others.
• Collaborating online - know how to work collaboratively using online software.
• Collaborative comments - know how to use collaborative tools online to contribute to others' work.

Additional lesson to be covered in Summer 1: Using and Applying Project Lesson 6