



## COMPUTING SYSTEMS & NETWORKS

### Technology around us

- To identify technology
- To identify a computer and its main parts
- To use a mouse in different ways
- To use a keyboard to type
- To use the keyboard to edit text
- To create rules for using technology responsibly

### Information technology around us

- To recognise the uses and features of information technology
- To identify information technology in the home
- To identify information technology beyond school
- To explain how information technology benefits us
- To show how to use information technology safely
- To recognise that choices are made when using information technology

## CREATING MEDIA

### Digital writing

- To use a computer to write
- To add and remove text on a computer
- To identify that the look of text can be changed on a computer
- To make careful choices when changing text
- To explain why I used the tools that I chose
- To compare writing on a computer with writing on paper

## DATA & INFORMATION

### Pictograms

- To recognise that we can count and compare objects using tally charts
- To recognise that objects can be represented as pictures
- To create a pictogram
- To select objects by attribute and make comparisons
- To recognise that people can be described by attributes
- To explain that we can present information using a computer

## PROGRAMMING

### Moving a robot

- To explain what a given command will do
- To act out a given word
- To combine forwards and backwards commands to make a sequence
- To combine four direction commands to make sequences
- To plan a simple program
- To find more than one solution to a problem

### Robot algorithms

- To describe a series of instructions as a sequence
- To explain what happens when we change the order of instructions
- To use logical reasoning to predict the outcome of a program (series of commands)
- To explain that programming projects can have code and artwork
- To design an algorithm
- To create and debug a program that I have written



### COMPUTING SYSTEMS & NETWORKS

#### Connecting computers

- To explain how digital devices function
- To identify input and output devices
- To recognise how digital devices can change the way we work
- To explain how a computer network can be used to share information
- To explore how digital devices can be connected
- To recognise the physical components of a network

#### The internet

- To describe how networks physically connect to other networks
- To recognise how networked devices make up the internet
- To outline how websites can be shared via the World Wide Web
- To describe how content can be added and accessed on the World Wide Web
- To recognise how the content of the WWW is created by people
- To evaluate the consequences of unreliable content

### CREATING MEDIA

#### Desktop publishing

- To recognise how text and images convey information
- To recognise that text and layout can be edited
- To choose appropriate page settings
- To add content to a desktop publishing publication
- To consider how different layouts can suit different purposes
- To consider the benefits of desktop publishing

### DATA & INFORMATION

#### Branching databases

- To create questions with yes/no answers
- To identify the object attributes needed to collect relevant data
- To create a branching database
- To identify objects using a branching database
- To explain why it is helpful for a database to be well structured
- To compare the information shown in a pictogram with a branching database

### PROGRAMMING

#### Sequence in music

- To explore a new programming environment
- I can identify that each sprite is controlled by the commands I choose
- To explain that a program has a start
- To recognise that a sequence of commands can have an order
- To change the appearance of my project
- To create a project from a task description

#### Repetition in games

- To develop the use of count-controlled loops in a different programming environment
- To explain that in programming there are infinite loops and count controlled loops
- To develop a design which includes two or more loops which run at the same time
- To modify an infinite loop in a given program
- To design a project that includes repetition
- To create a project that includes repetition



<b>COMPUTING SYSTEMS &amp; NETWORKS</b>
<b>Sharing information</b> To explain that computers can be connected together to form systems To recognise the role of computer systems in our lives To recognise how information is transferred over the internet To explain how sharing information online lets people in different places work together To contribute to a shared project online To evaluate different ways of working together online
<b>Communication</b> To identify how to use a search engine To describe how search engines select results To describe how search engines select results To explain how search results are ranked To recognise why the order of results is important, and to whom To recognise how we communicate using technology To evaluate different methods of online communication

<b>CREATING MEDIA</b>
<b>Vector drawing</b> To identify that drawing tools can be used to produce different outcomes To create a vector drawing by combining shapes To use tools to achieve a desired effect To recognise that vector drawings consist of layers To group objects to make them easier to work with To evaluate my vector drawing
<b>Web page creation</b> To review an existing website and consider its structure To plan the features of a web page To consider the ownership and use of images (copyright) To recognise the need to preview pages To outline the need for a navigation path To recognise the implications of linking to content owned by other people

<b>PROGRAMMING</b>
<b>Selection in quizzes</b> To explain how selection is used in computer programs To relate that a conditional statement connects a condition to an outcome To explain how selection directs the flow of a program To design a program which uses selection To create a program which uses selection To evaluate my program
<b>Sensing</b> To create a program to run on a controllable device To explain that selection can control the flow of a program To update a variable with a user input To use an conditional statement to compare a variable to a value To design a project that uses inputs and outputs on a controllable device To develop a program to use inputs and outputs on a controllable device