



Computing
Year 4
The Internet

Concepts
Information Technology

Prior Learning	New Learning	Future Learning
To explain how digital devices function	To describe how networks physically connect to other networks	To explain that computers can be connected together to form systems
To identify input and output devices	To recognise how networked devices make up the internet	To recognise the role of computer systems in our lives
To recognise how digital devices can change the way that we work	To outline how websites can be shared via the World Wide Web (WWW)	To identify how to use a search engine
To explain how a computer network can be used to share information	To describe how content can be added and accessed on the World Wide Web (WWW)	To describe how search engines select results
To explore how digital devices can be connected	To recognise how the content of the WWW is created by people	To explain how search results are ranked
To recognise the physical components of a network	To evaluate the consequences of unreliable content	To recognise why the order of results is important, and to whom

Sequence of Learning	Current Vocabulary	New Vocabulary
Connecting networks	digital device, input, process, output, program, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets	internet, network, router, security, switch, server, wireless access point (WAP), website, web page, web address, routing, web browser, World Wide Web, content, links, files, use, download, sharing, ownership, permission, information, accurate, honest, content, adverts
What is the internet made of?		
Sharing information		
What is a website?		
Who owns the web?		
Can I believe what I read?		

Trip/Visitor

Other Information	The Internet Purple Mash – online safety
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<b>Computing</b>
Year 4
Photo editing

<b>Concepts</b>
Digital literacy

Prior Learning	New Learning	Future Learning
To explain that animation is a sequence of drawings or photographs	To explain that the composition of digital images can be changed	To explain what makes a video effective
To relate animated movement with a sequence of images	To explain that colours can be changed in digital images	To use a digital device to record video
To plan an animation	To explain that images can be combined	To capture video using a range of techniques
To identify the need to work consistently and carefully	To explain how cloning can be used in photo editing	To create a storyboard
To review and improve an animation	To combine images for a purpose	To identify that video can be improved through reshooting and editing
To evaluate the impact of adding other media to an animation	To evaluate how changes can improve an image	To consider the impact of the choices made when making and sharing a video

Sequence of Learning	Current Vocabulary	New Vocabulary
Changing digital images	animation, flip book, stopframe, frame, sequence, image, photograph, setting, character, events, onion skinning, consistency, evaluation, delete, media, import, transition.	image, edit, digital, crop, rotate, undo, save, adjustments, effects, colours, hue, saturation, sepia, vignette, image, retouch, clone, select, combine, made up, real, composite, cut, copy, paste, alter, background, foreground, zoom, undo, font.
Changing the composition of images		
Changing images for different uses		
Retouching images		
Fake images		
Making and evaluating a publication		

<b>Trip/Visitor</b>

<b>Other Information</b>	Paint
	Purple Mash 2paint
	Sketchbook (touch screen app)



Computing
Year 4
Data logging

Concepts
Information technology

Prior Learning	New Learning	Future Learning
To create questions with yes/no answers	To explain that data gathered over time can be used to answer questions	To use a form to record information
To identify the attributes needed to collect data about an object	To use a digital device to collect data automatically	To compare paper and computer-based databases
To create a branching database	To explain that a data logger collects 'data points' from sensors over time	To outline how you can answer questions by grouping and then sorting data
To explain why it is helpful for a database to be well structured	To recognise how a computer can help us analyse data	To explain that tools can be used to select specific data
To plan the structure of a branching database	To identify the data needed to answer questions	To explain that computer programs can be used to compare data visually
To independently create an identification tool	To use data from sensors to answer questions	To use a real-world database to answer questions

Sequence of Learning	Current Vocabulary	New Vocabulary
Answering questions	attribute, value, questions, table, objects, branching, database, objects, equal, even, separate, structure, compare, order, organise, selecting, information, decision tree.	data, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion.
Data collection		
Logging		
Analysing data		
Data for answers		
Answering my question		

Trip/Visitor

Other Information	App – Google science journal Purple Mash 2calculate
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<b>Computing</b>
Year 4
Repetition in shapes

<b>Concepts</b>
Computer science

Prior Learning	New Learning	Future Learning
To explore a new programming environment	To identify that accuracy in programming is important	To control a simple circuit connected to a computer
To identify that commands have an outcome	To create a program in a text-based language	To write a program that includes count-controlled loops
To explain that a program has a start	To explain what 'repeat' means	To explain that a loop can stop when a condition is met
To recognise that a sequence of commands can have an order	To modify a count-controlled loop to produce a given outcome	To explain that a loop can be used to repeatedly check whether a condition has been met
To change the appearance of my project	To decompose a task into small steps	To design a physical project that includes selection
To create a project from a task description	To create a program that uses count-controlled loops to produce a given outcome	To create a program that controls a physical computing project

Sequence of Learning	Current Vocabulary	New Vocabulary
Programming a screen turtle	Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, sequence, event, task, design, run the code, order, note, chord, algorithm, bug, debug, code.	Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, decompose, procedure.
Programming letters		
Patterns and repeats		
Using loops to create shapes		
Breaking things down		
Creating a program		

<b>Trip/Visitor</b>

<b>Other Information</b>	Logo (turtle) Purple Mash 2Logo
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