The Piggott School: Charvil Primary

'Go and do Likewise' Luke 10:25, -37 The Parable of the Good Samaritan
We live with love and compassion, seeking help in times of need

Curriculum Map: Computing Year 4

	Autumn 1 **Computing systems and networks – The internet**	**Autumn 2** **Creating media – Audio editing**	**Spring 1** **Creating media – Photo editing**	**Spring 2** **Data and information - Data logging**	**Summer 1** **Programming A – Repetition in shapes**	**Summer 2** **Programming B – Repetition in games**
Content Declarative Knowledge 'I know'	*describe how networks connect to other networks *outline how information can be shared via the World Wide Web *recognise the World Wide Web as part of the internet *explain how the internet enables us to view the world wide web *know the pros and cons of the world wide web	*identify that sound can be recorded *identify that an input device is needed to record sound *identify that output devices are needed to play audio *recognise that recorded audio can be stored on a computer *recognise that audio can be edited *recognise that sound can be represented visually as a waveform *recognise that audio can be layered	*identify that computers can be used to play sounds of different instruments *identify that the same pattern can be represented in different ways *compare playing music on instruments with making music on a computer	*suggest questions that can be answered using a table of data *identify data that can be logged over time *identify that sensors are input devices *recognise that a sensor can be used as an input device for data collection *explain that a data logger captures 'data points' from sensors over time	*know what repeat means *identify everyday tasks that include repetition eg brushing teeth *explain that we can use a loop command in a program to repeat instructions *identify patterns in a sequence *identify a loop within a program *explain that in programming there are indefinite loops and count-controlled loops *explain that an indefinite loop will run until the program is stopped	*explain that you can program a loop to stop after a specific number of times *identify patterns in a sequence eg step 3 times means the same as step, step, step *justify when to use a loop and when not to *explain the importance of instruction order in a loop *recognise that not all tools enable more than one process to be run at once

Skills Procedural Knowledge 'I know how to'	*evaluate the reliability of content on the world wide web	*record sounds using a computer *play recorded audio Import audio into a project *delete a section of audio *change the volume of tracks in a project	*experiment with sounds and musical patterns on a computer *use a computer to create a musical pattern *use a computer to compose a rhythm and a melody on a given theme *use a computer to play some music in different ways (ie vary tempo) *evaluate and improve a musical composition	*use a digital device to collect data automatically *choose how often to automatically collect data samples *use a set of logged data to find information *use a computer program to sort data by one attribute *export information in different formats	*list an everyday task as a set of instructions including repetition *use an indefinite loop to produce a given outcome *use a count-controlled loop to produce a given outcome	*plan a program that includes appropriate loops to produce a given outcome *recognise tools that enable more than one process to be run at the same time (concurrency) *create two or more sequences that run at the same time
Vocabulary	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	audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, record, playback, selection, load, save, export, MP3, evaluate, feedback.	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.	data, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion.	Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, decompose, procedure.	Scratch, programming, sprite, blocks, code, loop, repeat, value, infinite loop, count-controlled loop, costume, repetition, forever, animate, event block, duplicate, modify, design, algorithm, debug, refine, evaluate.
Key Questions	What is the internet? How can we use the World Wide Web safely? How do we	What devices can capture photos? How can we capture, edit and improve photos?	What are input and output devices? What copyright implications are	How and why is data collected over time? How can sensors be used to monitor the	How do we create programs by planning, modifying and testing	What is repetition in programming? What are the similarities between Scratch and

	know if the online content is honest, accurate and reliable?	How can we identify fake images?	there when duplicating the work of others? How can we make a podcast?	environment? How can we analyse data collected over time?	commands to create shapes and patterns? How do we incorporate repetition and include loops?	Logo? What is the difference between infinite and count-controlled loops?
Assessment	Self-assessment in every lesson with success criteria for each lesson Observations by teacher					
Cross Curricular Links/Character Education	PSHE: evaluate content for honesty and accuracy Managing online information: explain what is meant by fake news	Art and Design	Science – find patterns between the volume of a sound and the strength of the vibrations that produced it Digital citizenship – copyright and ownership	Science: making systematic observations using data loggers	Art: repeating patterns – William Morris Year 1 unit	Individual liberty: pupils are given freedom to experiment with creating programs Individual liberty: Composition provides opportunity for independent choice