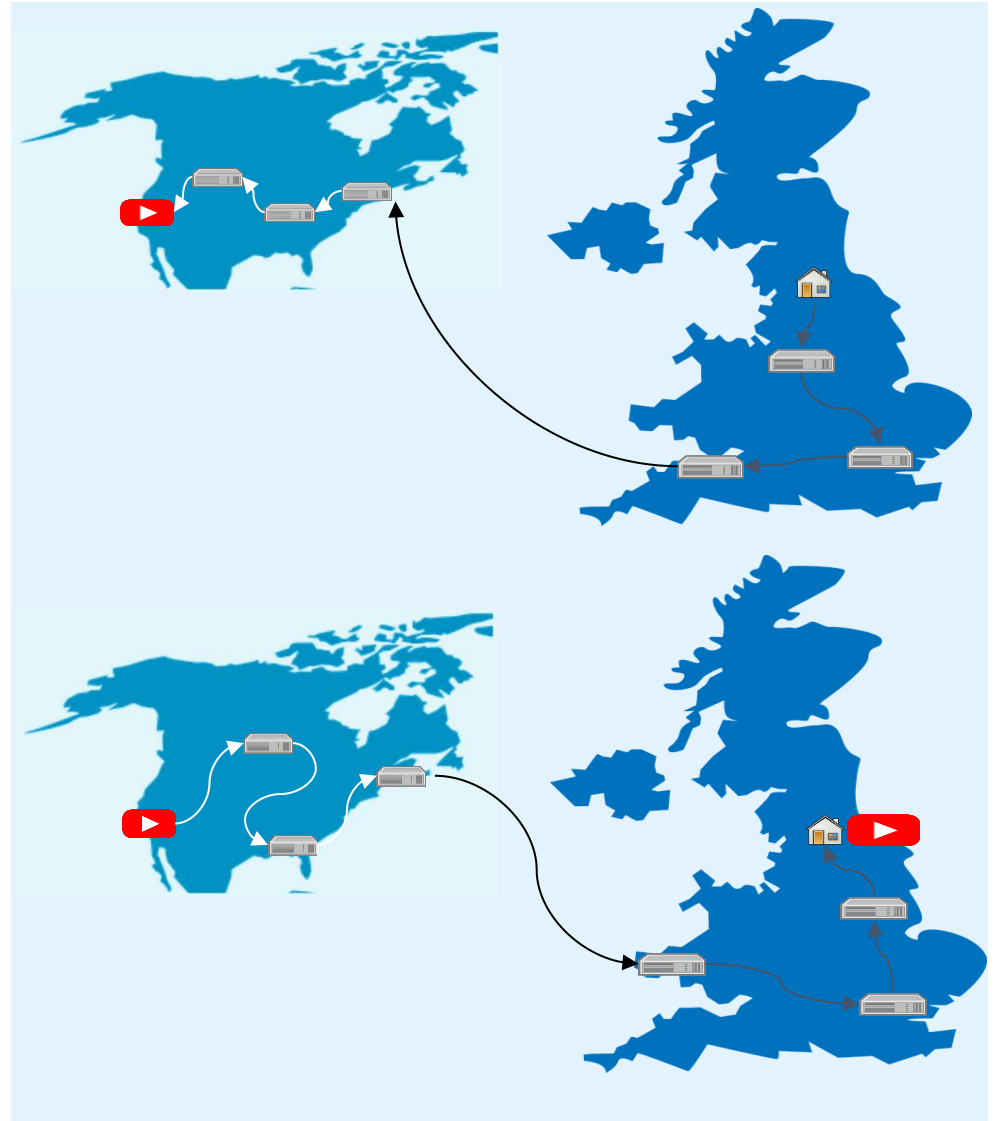


Computing Knowledge Organiser Year 4: We are Internet Explorers

Concept- **Computer Networks**

Key Vocabulary	Definition
Computer Network	A group of interconnected computing devices.
Internet	A worldwide system of computer networks.
Router	A device that manages the flow of data between computer networks
Website	A collection of interlinked web pages, stored under a single domain

A representation of a video in California, being requested and watched in Sheffield:

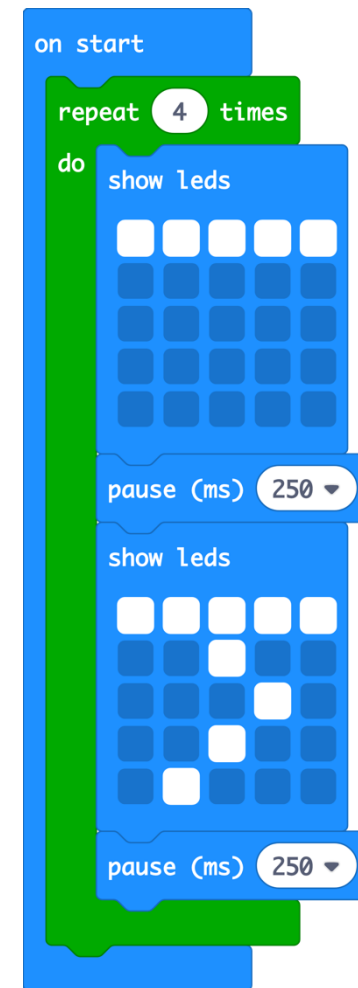


Computing Knowledge Organiser Year 4: We are Animators

Concept- Programming

Key Vocabulary	Definition
Algorithm	A set of step-by-step instructions that can be followed to achieve a goal.
Animation	A technique used to make still images look like they are moving, by changing each image slightly.
Decomposition	Breaking a problem or an overall action into smaller parts to make the overall process more manageable.
Micro:bit	A small device that can be programmed in different ways.
Repetition	An instruction or set of instructions that need to be carried out on more than one occasion can be repeated rather than written out again.
Programming	A set of instructions written for a computer to follow to achieve a specific goal.

An example of code using MakeCode software.



A micro:bit

Computing Knowledge Organiser Year 4: We are Photo Editors

Concept- **Online Safety**

Key Vocabulary	Definition
Digital Image	An image stored on a device, made up of pixels.
Editing	To make adjustments to a photo or image.
Purpose	What is the image for?
Composition	The way an image is made up. It is possible to rearrange the composition of an image.



Original



Flipped-
horizontally



Rotated- 90°
clockwise



Changed
composition



Cropped

Computing Knowledge Organiser Year 4: We are Meteorologists

Concept- Communication

An example of a sensor. It can record: Temperature

Light
Sound



Data collected by a sensor



Data exported into a different program

	A	B	C	D
1	Date(DDMMYY) Time	Temperature, deg C	Light level, lx	Sound level, dBA
2	08/06/2020 12:02:10	80.00	86	50.00
3	08/06/2020 12:03:01	78.60	72	50.00
4	08/06/2020 12:03:52	77.80	101	50.00
5	08/06/2020 12:04:43	75.60	101	50.00
6	08/06/2020 12:05:35	73.80	99	50.00
7	08/06/2020 12:06:26	72.60	103	50.00
8	08/06/2020 12:07:17	71.20	100	50.00
9	08/06/2020 12:08:08	69.80	94	50.00
10	08/06/2020 12:08:59	68.20	92	50.00
11	08/06/2020 12:09:51	67.20	94	50.00

Key Vocabulary	Definition
Data	A letter, word, number etc. that has been collected for a purpose, but stored without context.
Data Set	A collection of related data.
Input	Data that is sent to a program to be processed.
Output	The result of data processed by a computer.
Sensor	A device which detects or measures a physical property and records or indicates the information.

Computing Knowledge Organiser Year 4: We are Pattern Makers

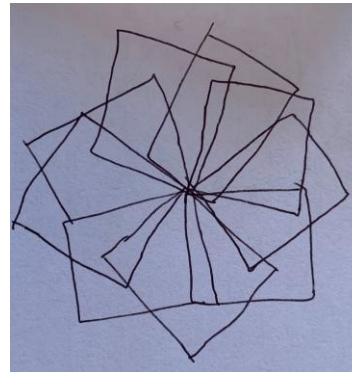
Concept- **Programming**

Key Vocabulary	Definition
Code Snippet	A section of a program viewed by itself.
Procedure	A named set of commands that can be used multiple times throughout a program.
Loops	Commands that repeatedly run a defined section of code.

Code Snippet:

```
RT 90 FD 100 RT 90 FD 100 RT 90 FD 100  
LT 90 FD 100 LT 90 FD 100
```

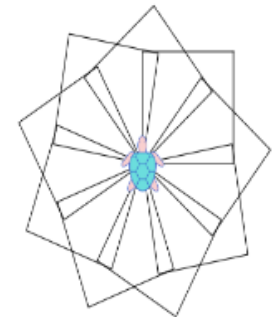
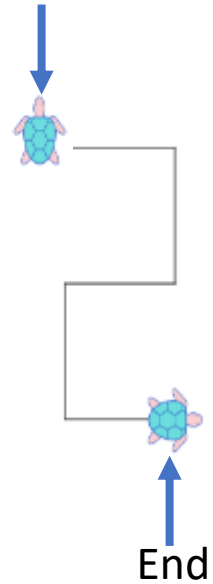
Design for a repeated pattern:



Plan for repeated pattern:
Square, repeat 9x,
turning 40 degrees
each time.

Code for a repeated pattern:
repeat 9 [repeat 4 [FD 100 RT 90]
PU RT 40 PD]

Start



Computing Knowledge Organiser Year 4: We are Musicians

Concept- **Communication**

Key Vocabulary	Definition
Audio	Sound that has been recorded or transmitted.
Copyright ©	Copyright is a law that allows the owner of the recording/ document to decide what happens with it.
Audio Recording	Recording audio so that it can be played back.
Sound waveform	Waveform means a graphical representation of the shape and form of a signal. For sound, this shows the amplitude.

Example of a sound waveform

