

UPLANDS JUNIOR SCHOOL: LONG-TERM COMPUTING CURRICULUM MAP 2023

	Brilliant Basics (2-3 weeks)	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
Year 3	Brilliant Basics Computing contexts	Digital Researcher & Digital Presenter Research, text and images (content) Search and select	Digital Publisher Research and content Search and select	Digital Programmer Algorithms, Programming and Systems	Digital Artist Images (Content) Mechanics (Digital Literacy)	Digital Broadcaster Multimedia (Content) Mechanics (Digital Literacy)	Digital Designer Images (Content) Mechanics (Digital Literacy)
CC topics	Laptops Google Classroom	Ancient Egypt (specific topic) or linked to English topic Popplet/Keynote/Google Slides	Ancient Egypt Book Creator/Padlet	Scratch Junior (2 weeks)/Scratch-basics learn controls Off screen activities	Ancient Greece The resource is https://tilemaker.qfi.org/create/	Magazine show – Rainforests / or link with English Using Audacity	Lego Digital Designer MINECRAFT
Year 4	Brilliant Basics Computing contexts	Digital Animator Multimedia (Content) Mechanics (Digital Literacy)	Digital Researcher & Digital Presenter Research, text and images (content) Search and select	Digital Film Maker Multimedia and images (Content) Mechanics (Digital Literacy)	Digital Programmer Algorithms, Programming and systems	Digital Musician Multimedia (Content) Mechanics (Digital Literacy)	Digital data handler Data handling
CC topics	Laptops Ipad Google Classroom	Stone Age/Bronze Age/ Iron Age – Stop Motion	Stone Age/Bronze Age / Iron Age Google Slides	Romeo & Juliet imovie	Scratch – presentation conversation Off screen activities	Roman Rap – Write lyrics and create music.	Link to Maths Using Excel (databases) Creating surveys/analysing data (graphs) Numbers (on iPads)
Year 5	Brilliant Basics Computing contexts	Digital Designer Images (Content) Mechanics (Digital Literacy)	Digital Broadcaster Multimedia (Content) Mechanics (Digital Literacy)	Digital Programmer Algorithms, Programming and systems	Digital Publisher Research, text and images (content) Search and select	Digital Researcher & Digital Presenter Research and systems Search and select	Digital Artist Images (Content) Mechanics (Digital Literacy)
CC topics	Laptops Ipad Google Classroom Chromebooks	WW2 Air Raid Shelters Sketch Up	World War 2 Podcast Audacity	Create Viking & Anglo Saxons Quiz. Scratch Off screen activities	Settlers/Invaders (Anglo Saxons/Vikings) Blog: Daily life of Anglo Saxon or Viking using Google Sites	Creating tutorials linked to English/Maths. Stop motion	Carding Mill Valley Trip: Rivers Sketchbook/ipastels
Year 6	Brilliant Basics Computing contexts	Digital Data Handler Data handling	Digital Researcher & Digital Presenter Research, text and images (content) Search and select	Digital Animator Multimedia (Content) Mechanics (Digital Literacy)	Digital Film Maker Multimedia and images (Content) Mechanics (Digital Literacy)	Digital Programmer Algorithms, Programming and systems	Digital Musician Multimedia (Content) Mechanics (Digital Literacy)
CC topics	Laptops Ipad Google Classroom Chromebooks	Theme Park Budget - Link Wolverhampton topic (Theme Park on West Park)	Wolverhampton Adobe Spark Creative cloud	Link to English topic Suspense narrative Animating a book Using: Stop Motion /iMovie	Graffiti discussion linked to English and art Resource??	Swift Playground Kodu game making Off screen activities	1960s genre of music Garage Band

National curriculum links

Computer Science – Algorithms, data handling, programming and systems (Co2 1.1, 1.2, 1.3, 1.4, 1.6)

Information Technology – Digital research, computing contexts and content (Artefacts: text, images, multimedia) (Co2 1.2, 1.4, 1.5, 1.6, 1.7)

Digital Literacy – Mechanics, searching/selecting information, E-safety (units taught every half term on separate document) (Co2 1.5, 1.6, 1.7)

Squirrel Learning 2023 Workshops

Year 3 – Scratch Junior/Introduction to Scratch unit Spring 1

Audio Production Summer 1

Year 4 – Audio Production (Podcasts and recording using Garage Band) Autumn 1

Data logging Summer 2

Year 5 – Selection in quizzes (Scratch) Spring 1

Data handling (Google Sheets) Spring 2

Year 6 – Advanced animation (Stop motion) Spring 2

Variables in games Summer 1

Selection in physical computing:

Use of purchased hardware – Sphero Balls. All classes to use 'Sphero Balls' timetable to conduct an additional session (Application after Digital Programming unit is taught)

Continuous Units

- **Digital Researcher & Digital Presenter taught each year -progression through software used to present their work.**

Keynote-Google Slides-Stop Motion-Adobe Spark Page

With regards to Presenter there is very much a crossover with Digital publishing and we recommend that in all areas of the curriculum there should be an element of presenting/publishing any content created by the children.

Progression is made by children using different tools available within the software. e.g in book creator Y3 may only add pictures, drawing and text, whereas Y6 may start looking at hyperlinks to create content and index pages and also bring in content they have created in other apps to add a multimedia experience to the book. In UKS2, we use additional ways of publishing or presenting such as websites or blog tools through google.

- **Digital Programmer**

Year 3 Scratch Junior/Scratch

- Focus on motion and control-Move the sprite across the stage, make the sprite talk, make the sprite talk and then move.
- When children are ready, do a basic introduction to Scratch (explore motion blocks, events and basic controls).
- Debugging activity

Year 4 Scratch Conversation Basic introduction to Scratch - explore Events, Motion, Control and pen tool

- Explore motion of sprite - build simple algorithms with Event blocks
- Explore use pen tool - use motion blocks and pen tool to draw simple shapes
- Explore other settings - adding new sprites/change sprites/change backdrops
- Create a simple conversation between two sprites - introduce Control blocks e.g. wait block
- Debugging Activity
- J2code Logo- SEND

Year 5 Scratch Quiz

Year 6 Kodu Game Making

Lower School/Upper School Units

- **Digital Publisher** (Years 3 and 5)
- **Digital Artist** (Years 3 and 5)
- **Digital Broadcaster** (Years 3 and 5)
- **Digital Designer** (Years 3 and 5)
- **Digital Film Maker** (Years 4 & 6)
- **Digital Data Handler** (Years 4 & 6)
- **Digital Animator** (Years 4 & 6)
- **Digital Musician** (Years 4 & 6)

Digital Musician (Years 4 & 6 Garage band)

Y4 use the live loops tools children explore how to use the software and then record a piece of short music around a theme or a film clip.

Y6 look at using the layering of tracks manually to create a full composition with a structure. e.g beginning/middle/end - thinking about texture instruments and other musical components.

Digital Animator (Years 4 & 6 Stop Motion and imovie)

Year 4 - look at simple stop motion using 1 or 2 objects to bring to life or use flat 2d characters on backgrounds to produce simple stop motion scenes.

Y6 - Progressing to using stop motion with more than 1 character to create a full story with multiple scenes. Including adding narration/music/sound effects and post editing. This includes planning out in detail to ensure that all elements come together.

Digital Data Handler (Years 4 & 6 both use excel- Year 6 provide a Theme Park budget with various activities to complete)

Y4 look at databases (including branching databases)

Y6 look at spreadsheets using formulas to do basic tasks such as adding columns or rows or budgeting for a party. Pupils produce graphs and charts from the data collected as well as looking if they have successfully made profit from their Theme Park.

Digital Film Maker (Years 4 imovie & 6 graffiti discussion)

Y4 look at news reports (Romeo and Juliet) and use iMovie to place green screen backdrops along with picture in picture overlays. Pupils write simple scripts and learn about the techniques of talking on camera.

Y6 progress on to learning about filming techniques including different types of shots to look to script, edit and produce a short film.

Digital Designer (Years 3 Minecraft and 5 Sketch Up)

Y3 Minecraft as a design tool and talk about choices of material, but this may be exhausted quite quickly so other ideas include using art and sketch tools to create packaging for products or using online lego building tools to make models.

Yr5 Sketch up designing an Anderson Shelter using various tools.

Digital Broadcaster (Years 3 Book Creator/Padlet and 5 Seesaw- blog)

Y3 Book Creator is the starting point and pupils will use the record function to record an audio book with pictures, progressing onto using simple audio recording software (including Garageband) to record simple podcasts or news reports which pupils learn how to edit.

Y5 take this further by looking at planning, scripting, recording and editing a radio play or 'live' radio show to be broadcast to an audience.