

Codsall

## Birches First School

Believe, Grow, Succeed to be the best 'me' I can be

## Curriculum Pathways – Computing Themes

Our curriculum aims to equip children to use computational thinking and creativity to change and understand the wider world. This will result in fun and engaged learners who are not afraid to ask why as well as how. We aim for our children to confidently discuss their online leaning and be able to reflect and appreciate the impact that computing has on them in society. Through wellbeing links, children will be able to find a balance between technology and a healthy lifestyle. Our Computing curriculum equips our learners for their next stage in education by ensuring they are competent and confident to apply and use their transferable skills in different ways. Our curriculum also enables our children to understand the importance of Online Safety to themselves and others to keep safe.

Online Safety

Protect identity, phishing, malware, plagiarism, healthy screen time

Writing for Different Audiences t styles, news report, persuasive letter

**Animation** Animation frames, onion skin tool, backgrounds/ sounds, stop motion

Hardware Investigator

Year 4

Coding

Design/code/test/debug, if/ else statements, co-ordinates, repeat until, number variables

Spreadsheets Formulas, timer, spin buttons, line graph, currency, place value link

Logo Follow instructions, pu/ pd, predict outcome, repeat, procedure feature

**Effective Searching** Using a search engine, reliable information (credibility)

**Making Music** Create simple rhythm, change tempo, melodic pattern

Presenting MS PowerPoin

**Simulations** Computer simulations, testing predictions, evaluation

Email (Online Safety) Strengths/ weak emails. email safety, attachments CC/ BCC

Bar charts, pie charts, more than/ less than/ equal to, 'spin' tool, cell location

Coding test/ debug, make interactive scene

Grap hing

Set up graph, enter data, solve investigation, presenting data

Branching Databases s/ no questions, create a branching database

Touch Typing

Online Safety assword, fact or fiction, Names of fingers, key names touch type using two hands spoof webpage, appropriate content/ratings

Year 3

Online Safety Searching and sharing, email using 2Respond, digital footprint

Questioning
Using/ creating pictograms,
yes/ no questions, binary trees

Creating Pictures Impressionism, pointillism, Piet Mondrian, William Morris, surrealism

Mind map, quiz, e-book, fact file, presentation

Year 2

**Coding**Algorithms, collision detection, using a timer, object types, buttor

**Spreadsheets**Copy and paste, total tools, adding amounts, creating a table

Effective Searching (Online <u>Safety)</u>

Making Music
Speed up/ slow down motif,

Maze Explorers

Pictograms Class data, class pictogram,

<u>Technology Outside School</u> What is technology?

Coding Instructions, object/ action, events, scenes, using a plan

algorithm, change background

recording results

work area, tools

Year 1

Spreadsheets

Rows, columns, enter data add image, speak/ count

**Animated Story Books** 

awing tools, animation, soun background, copy and paste Following instructions, algorithms, order of instructions

Lego Builders

**Traditional Tales** Program bee bots to follow a

**Grouping and Sorting** Sorting using a criteria online and offline

Me and My School Further explore tools for  $\boldsymbol{\alpha}$ purpose on the IWB by moving items and drawing on the screen.

route around a map.

Come Outside Begin to understand My Mini Mash and navigate around a website safely

Year R

Out and About: Manipulate the pen on the IWB and use Tux Paint using different tools for a purpose.

Celebrations Use an iPad by taking photos safely and using QR codes to achieve an outcome.

'Out of This World' Explore sensible screentime and understand internet safety rules and reasons why

Special Times: Explore technological toys and begin to understand how things work.

The World Around Us Consider how technology is used in the wider world and its role in society

Year N

All Creatures Great and Small Use iPads to make digital art and understand how to use different tools on the iPad for a purpose

People Who Help Us Learn simple rules for staying safe online.

Once Upon a Time: Begin to operate bee bots around a story map using simple instructions.

I Wonder What Makes Me Special: Become familiar with different types of technology in role play situations.