



COMPUTING curriculum

STATUTORY

Nursery and Reception	Year 1 and Year 2
	<ul style="list-style-type: none">• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions• Create and debug simple programs• Use logical reasoning to predict the behaviour of simple programs• Use technology purposefully to create, organise, store, manipulate and retrieve digital content• Recognise common uses of information technology beyond school• Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.• Both Key Stages: Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

THELWALL INFANT SCHOOL AND NURSERY AGE EXPECTATIONS

EYFS

Programming	Multi-media	Technology in our lives and E-Safety
<ul style="list-style-type: none"> • Control motion by specifying direction to travel-e.g. remote control cars, floor robot. • Use simple software to make something happen. • Make choices about the buttons and icons they press, touch or click on. 	<ul style="list-style-type: none"> • Move objects on a screen. • Create shapes, drawings and simple text (e.g. labels) on a screen. • Take pictures and record video. • Begin to create/publish work including pictures/text/sound to be presented to others e.g. pic collage, pages. 	<p><u>E-safety</u></p> <ul style="list-style-type: none"> • Begin to understand what personal information is (Name/address) and who they can share it with. • Ask before using the internet and tell a safe adult (parent/teacher etc.) when something worrying or unexpected happens while using the Internet. • Talk about the amount of time they spend using a computer / tablet / game device. • Treat technology devices with care. <p><u>Technology in our lives</u></p> <ul style="list-style-type: none"> • Understand the uses of technology and choose appropriate technology for a specific purpose. • Operate simple equipment. • Use a safe part of the internet (specified website) to play and learn.

KEY STAGE 1

In Key Stage 1 we use the Teach Computing scheme of work (developed by The National Centre for Computing Education)

Unit summaries

	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 1	Technology around us Recognising technology in school and using it responsibly.	Digital painting (paintz) Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	Moving a robot (Beebots) Writing short algorithms and programs for floor robots, and predicting program outcomes.	Grouping data Exploring object labels, then using them to sort and group objects by properties.	Digital writing (Google Docs) Using a computer to create and format text, before comparing to writing non-digitally.	Programming animations (Scratch jnr) Designing and programming the movement of a character on screen to tell stories.
Year 2	Information technology around us Identifying IT and how its responsible use improves our world in school and beyond.	Digital photography (pixlr) Capturing and changing digital photographs for different purposes.	Robot algorithms (Beebots) Creating and debugging programs, and using logical reasoning to make predictions.	Pictograms (just2easy.pictogram) Collecting data in tally charts and using attributes to organise and present data on a computer.	Digital music (chrome music lab) Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Programming quizzes (Scratch jnr) Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.

Curriculum Coverage — Years 1 and 2	1.1 Technology around us	1.2 Digital painting	1.3 Moving a robot	1.4 Grouping data	1.5 Digital writing	1.6 Programming animations	2.1 Information technology around us	2.2 Digital photography	2.3 Robot algorithms	2.4 Pictograms	2.5 Digital music	2.6 Programming Quizzes
Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions			✓			✓			✓			✓
Create and debug simple programs			✓			✓			✓			✓
Use logical reasoning to predict the behaviour of simple programs			✓			✓			✓			✓
Use technology purposefully to create, organise, store, manipulate, and retrieve digital content	✓	✓		✓	✓		✓	✓		✓	✓	✓
Recognise common uses of information technology beyond school	✓		✓				✓	✓				
Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	✓			✓	✓		✓	✓	✓	✓		