

Computing: FIRS FARM

FIRS FARM PRIMARY



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Curriculum Vision Statement: Computing

Firs Farm School Vision:

Children at Firs Farm thrive academically and emotionally in a supportive and welcoming environment. We celebrate difference. We make sure children are proud of their own and each other's heritage. We develop global citizens ready for the challenge of the future in the international city that is London. Our curriculum is designed so that children are the best they can be and strive for excellence. By providing opportunities to perform, take part in sports and experiences beyond the classroom we equip children with independence, resilience and teamwork.

How Computing links to our School Values:

Kindness	Respect	Excellence	Togetherness
Support our peers and give constructive feedback.	How we treat others online.	Exploring new techniques and challenging ourselves with a growth mindset	All responsible for each other's wellbeing online and giving supportive, positive interactions.

<u>Curriculum Intent:</u>

The Computing Vision statement must work alongside and in harmony with our school vision and values. Here at Firs Farm, it is our responsibility for all pupils to be lifelong Digital learners by being:

ONLINE SAFE, ONLINE INSPIRED AND ONLINE CONFIDENT!

At Firs Farm, Computing enables all children to be confident, creative and independent learners, whilst developing their computational thinking in preparation for their future education and later life. It is vital we equip pupils with the skills and knowledge to explore, analyse and assess information online, with the opportunity to access up to date equipment, software and emerging technologies in the classroom.

Teaching of Computing focuses on the three core strands from the National Curriculum; Computer Science, Information Technology and Digital Literacy. Teaching must promote collaborative learning, development of social skills and encouragement of metacognitive and growth mindset attitudes. Pupils should access a broad, balanced and progressive curriculum, which builds on previous learning and development of new concepts. Alongside this, ensuring pupils are taught to navigate and work safely online, promoting positive behaviour and attitudes, whilst enriching their lives and experiences in a safe, inclusive and stimulating learning environment.

At the heart of it's Curriculum, Computing at Firs Farm has the highest regard for online safety, inclusivity for all it's pupils and motivation to learn through interconnected topics and subjects.

COMPUTING AT FIRS FARM

Purpose

At Firs Farm, our Computing curriculum is designed to promote and deliver a high-quality computing education that equips pupils to use computational thinking whilst using creativity to understand and change the online world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

We encourage children to develop, use and understand a varied computational vocabulary which is built upon, as skills are revisited and developed further each year. They_should be encouraged to understand how computing can be linked to everyday routines, metacognition and growth mindset. We intend to provide all children, including our most disadvantaged, EAL and boys in particular with an engaging, broad and balanced computing curriculum. All children are encouraged to make use of the iPads, Laptops and ICT Suite available to them.

"Computing at Firs Farm is inspiring, informative and inclusive to all of our children. Online safety is met with the highest importance and children are aware and respectful of how to communicate online."

Aims

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology

SUBJECT LEAD: Christiana Constantinou

Date: February 2024

Content of programme of study

At Firs Farm, Computing is taught from the EYFS through to Year 6.

In the EYFS, Computing is no longer a statutory subject to teach, however the children are still exposed to computer rich vocabulary and have an offering of several units which begin their computational thinking and drive. In KS1, early literacy, programming and networking skills are taught which are then developed into KS2. Pupils seek to be digitally literate and computer safe through exposure to different programs, software, devices and workshops.

Pupils in KS1 should be taught to:



- ✓ 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

Pupils in KS2 should be taught to:

- ✓ design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- ✓ use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- ✓ use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

- ✓ understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration
- ✓ use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- ✓ select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- ✓ use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

COMPUTING PROGRESSION GRIDS

Computing is taught as a skills based curriculum rather than unit based. Class teachers are expected to take the skills for their year group and make cross curricular links with the Foundation planning. Each term begins with a knowledge based lesson on online safety and touch typing.

	Computer Science	Digital Literacy	Information Technology
EYFS Skills	Children at Firs Farm will: Have access to Beebots and sequence cards See that Beebots can move Locate certain buttons on Beebots (forward/back/stop)	Children at Firs Farm will: Have access to keyboards to press and use during Free Flow learning Name some buttons on a keyboard Name some parts of a computer (screen) Name other technology objects (camera, IPad)	Children at Firs Farm will: Use Paint to mark make Locate the eraser button to undo any mark making
Next step	At Firs Farm children will: Use a Beebots and/or Beebots software to; predict what might happen, move forward and backward, control an object, create patterns, begin to understand, debug and follow algorithms	Children at Firs Farm will: Use and name parts of a computer and keyboard Begin typing sentences using the keyboard (no touch typing)	Children at Firs Farm will: Use different paint software to create images using tools such as brush, undo, fill, spray, shapes

	EYFS	EYFS	EYFS
	Have access to Beebots and sequence	Have access to keyboards to press and use during	Use Paint to mark make
Prior	cards	Free Flow learning	Locate the eraser button to undo any
knowledge	See that Beebots can move	Name some buttons on a keyboard	mark making
	Locate certain buttons on Beebots	Name some parts of a computer (screen)	
	(forward/back/stop)	Name other technology objects (camera, IPad)	
	At Firs Farm children will:		
Year 1 Skills	Use a Beebots and/or Beebots software to; predict what might happen, move forward and backward, control an object, create patterns, begin to understand, debug	Children at Firs Farm will: Use and name parts of a computer and keyboard Begin typing sentences using the keyboard (no touch typing)	Children at Firs Farm will: Use different paint software to create images using tools such as brush, undo, fill, spray, shapes
Next step	At Firs Farm children will: Use a Beebots and/or Beebots software to sequence an algorithm, predict a route that a Beebots will table, include 90 degree turns in their algorithms, create own sequences	Children at Firs Farm will: Use and name parts of different devices e.g. IPads, laptops Begin typing grammatically correct sentences punctuated accurately.	Children at Firs Farm will: Use different software to create images that us a variety of tools, artists and their effects, copy and paste images from the Internet and Word

	and note, edit and debug a sequence	Use features of programs (Word/Excel, etc.) to	
	of movements	change basics – font size and type, colour,	
		alignments, save and retrieve work, inserting	
		and formatting images, selecting text	
	EYFS		
	Have access to Beebots and sequence	EYFS	
	cards	Have access to keyboards to press and use during	EVEC
	See that Beebots can move	Free Flow learning	
	Locate certain buttons on Beebots	Name some buttons on a keyboard	Use Paint to mark make
	(forward/back/stop)	Name some parts of a computer (screen)	Locate the eraser button to undo any
Prior		Name other technology objects (camera, IPad)	mark making
knowledge	YEAR 1		
– Year 2	Use a Beebots and/or Beebots	YEAR 1	YEAR 1
	software to; predict what might	Use and name parts of a computer and keyboard	Use different paint software to create
	happen, move forward and	Begin typing sentences using the keyboard (no	images using tools such as brush, undo,
	backward, control an object, create	touch typing)	fill, spray, shapes
	patterns, begin to understand, debug		
	and follow algorithms		
	At Firs Farm children will:	Children at Firs Farm will:	Children at Firs Farm will:
Year 2			
Skills	Use a Beebot and/or Beebots	Use and name parts of different devices e.g.	Use different software to create images
	software to sequence an algorithm,	IPads, laptops	that use a variety of tools, artists and

	predict a route that a Beebot will	Begin typing grammatically correct sentences	their effects, copy and paste images
	take, include 90 degree turns in their	punctuated accurately.	from the Internet and Word
	algorithms, create own sequences	Use features of programs (Word/Excel, etc.) to	
	and note, edit and debug a sequence	change basics – font size and type, colour,	
	of movements	alignments, save and retrieve work, inserting and	
		formatting images, selecting text	
	As Firs Farm children will:	Children at Firs Farm will:	Children at Firs Farm will:
Next Step	Use Blubots to sequence a debug, create own sequences as well as specified shapes and routes, repeat algorithms and begin to explain the procedure of coding	Use features of programs to add WordArt, select text, copy and paste, insert images from web and/or saved files, edit work by adding B I <u>U</u> Begin to introduce some keyboard shortcuts - ensure shift button is used when writing capital letters mot caps lock	Use paint and other software to copy and paste between programs, repeat patterns, reflect images, change brush size and effect, rotate and flip images and manipulate shapes
	EYFS	EYFS	
	Have access to Beebots and sequence	Have access to keyboards to press and use during	EYFS
Prior	cards	Free Flow learning	Use Paint to mark make
knowladaa	See that Beebots can move	Name some buttons on a keyboard	Locate the eraser button to undo any
Knowledge	Locate certain buttons on Beebots	Name some parts of a computer (screen)	mark making
- Teur 5	(forward/back/stop)	Name other technology objects (camera, IPad)	
			YEAR 1
	YEAR 1	<u>YEAR 1</u>	

	Use a Beebots and/or Beebots	Use and name parts of a computer and keyboard	Use different paint software to create
	software to; predict what might	Begin typing sentences using the keyboard (no	images using tools such as brush, undo,
	happen, move forward and	touch typing)	fill, spray, shapes
	backward, control an object, create		
	patterns, begin to understand, debug	<u>YEAR 2</u>	YEAR 2
	and follow algorithms	Use and name parts of different devices e.g.	Use different software to create
		IPads, laptops	images that use a variety of tools,
	<u>YEAR 2</u>	Begin typing grammatically correct sentences	artists and their effects, copy and
	Use a Beebots and/or Beebots	punctuated accurately.	paste images from the Internet and
	software to sequence an algorithm,	Use features of programs (Word/Excel, etc.) to	Word
	predict a route that a Beebots will	change basics – font size and type, colour,	
	table, include 90 degree turns in their	alignments, save and retrieve work, inserting and	
	algorithms, create own sequences	formatting images, selecting text	
	and note, edit and debug a sequence		
	of movements		
	Children at Firs Farm will:		Children at Firs Farm will:
		Children at Firs Farm will:	
Veer 2	Use Blubots to sequence a debug,		Use paint and other software to copy
	create own sequences as well as	Use features of programs to add WordArt, select	and paste between programs, repeat
SRIIIS	specified shapes and routes, repeat	text, copy and paste, insert images from web	patterns, reflect images, change brush
	algorithms and begin to explain the	and/or saved files, edit work by adding ${f B}I\!\!\!U$	size and effect, rotate and flip images
	procedure of coding		and manipulate shapes

		Begin to introduce some keyboard shortcuts - ensure shift button is used when writing capital letters mot caps lock	At Firs Farm children will:
Next step	At Firs Farm children will: Use Scratch to understand more complex algorithms, debug pre-made animations, use basic formula (pen up/down/forward/back), begin to build algorithms for different shapes	Children at Firs Farm will: Use features such a spell check, paragraphs, indent, bullet points Use keyboard short cuts for copy and paste Insert text boxes into documents and add images to this. Begin animating (PowerPoint)	Use different software to explore effects such as transparency and colour, manipulate picture to imitate different artists, copy/paste/edit images from the Internet Create a photo story understanding how digital images work using vocabulary such as pixels, types, effects, manipulate Create and/or use simple sound files

	EYFS Have access to Beebots and sequence cards See that Beebots can move Locate certain buttons on Beebots (forward/back/stop)	EYFS Have access to keyboards to press and use during Free Flow learning Name some buttons on a keyboard Name some parts of a computer (screen) Name other technology objects (camera, IPad)	EYFS Use Paint to mark make Locate the eraser button to undo any mark making YEAR 1 Use different paint software to create
Prior Knowledge	YEAR 1 Use a Beebots and/or Beebots software to; predict what might happen, move forward and	YEAR 1 Use and name parts of a computer and keyboard Begin typing sentences using the keyboard (no touch typing)	images using tools such as brush, undo fill, spray, shapes <u>YEAR 2</u>
– Year 4	backward, control an object, create patterns, begin to understand, debug and follow algorithms <u>YEAR 2</u> Use a Beebots and/or Beebots software to sequence an algorithm, predict a route that a Beebots will table, include 90 degree turns in their	YEAR 2 Use and name parts of different devices e.g. IPads, laptops Begin typing grammatically correct sentences punctuated accurately. Use features of programs (Word/Excel, etc.) to change basics – font size and type, colour, alignments, save and retrieve work, inserting and formatting images, selecting text	Use different software to create images that us a variety of tools, artists and their effects, copy and paste images from the Internet and Word <u>YEAR 3</u> Use paint and other software to copy and paste between programs, repeat

and note, edit and debug a sequence	YEAR 3	size and effect, rotate and flip images
of movements	Use features of programs to add WordArt, select	and manipulate shapes
	text, copy and paste, insert images from web	
<u>YEAR 3</u>	and/or saved files, edit work by adding ${f B}{I\!U}$	
Use Blubots to sequence a debug,	Begin to introduce some keyboard shortcuts -	
create own sequences as well as	ensure shift button is used when writing capital	
specified shapes and routes, repeat	letters mot caps lock	
algorithms and begin to explain the		
procedure of coding		

			At Firs Farm children will:
Year 4 Skills	At Firs Farm children will: Use Scratch to understand more complex algorithms, debug pre-made animations, use basic formula (pen up/down/forward/back), begin to build algorithms for different shapes	Children at Firs Farm will: Use features such a spell check, paragraphs, indent, bullet points Use keyboard short cuts for copy and paste Insert text boxes into documents and add images to this. Begin animating (PowerPoint)	Use different software to explore effects such as transparency and colour, manipulate picture to imitate different artists, copy/paste/edit images from the Internet Create a photo story understanding how digital images work using vocabulary such as pixels, types, effects, manipulate Create and/or use simple sound files
Next Step	At Firs Farm children will: Use Scratch to include loops, variables, decomposition, sequences, selection and repetition, changes of input, create different output Understand what a physical system is Create a procedure to draw any regular polygon using number of sides and length	Children at Firs Farm will: Insert, edit, add and delete tables Introduce top tabs; page layout, insert, design Edit documents and sentences by highlighting and dragging Move sections by copying and pasting using short cuts	Children at First Farm will: Use Sketch Up and other software to create, design and build their own animations using all skills above as well as simple video clips

		When using PowerPoint introduce and use	
	Robot project	transition, animation, hyperlink and re order	
		slides	
	<u>EYFS</u>	EYFS	<u>EYFS</u>
	Have access to Beebots and sequence	Have access to keyboards to press and use during	Use Paint to mark make
	cards	Free Flow learning	Locate the eraser button to undo any
	See that Beebots can move	Name some buttons on a keyboard	mark making
	Locate certain buttons on Beebots	Name some parts of a computer (screen)	
	(forward/back/stop)	Name other technology objects (camera, IPad)	<u>YEAR 1</u>
			Use different paint software to create
	<u>YEAR 1</u>	<u>YEAR 1</u>	images using tools such as brush, undo,
Prior	Use a Beebots and/or Beebots	Use and name parts of a computer and keyboard	fill, spray, shapes
knowledge	software to; predict what might	Begin typing sentences using the keyboard (no	
– Year 5	happen, move forward and	touch typing)	<u>YEAR 2</u>
	backward, control an object, create		Use different software to create images
	patterns, begin to understand, debug	<u>YEAR 2</u>	that us a variety of tools, artists and
	and follow algorithms	Use and name parts of different devices e.g.	their effects, copy and paste images
		IPads, laptops	from the Internet and Word
	<u>YEAR 2</u>	Begin typing grammatically correct sentences	
	Use a Beebots and/or Beebots	punctuated accurately.	<u>YEAR 3</u>
	software to sequence an algorithm,	Use features of programs (Word/Excel, etc.) to	Use paint and other software to copy
	predict a route that a Beebots will	change basics – font size and type, colour,	and paste between programs, repeat

		alternation and anatomic and the state of the	a strange will be the second share of the
	table, include 40 degree turns in their	alignments, save and retrieve work, inserting and	patterns, reflect images, change brush
	algorithms, create own sequences	formatting images, selecting text	size and effect, rotate and flip images
	and note, edit and debug a sequence		and manipulate shapes
	of movements	<u>YEAR 3</u>	
		Use features of programs to add WordArt, select	<u>YEAR 4</u>
	YEAR 3	text, copy and paste, insert images from web	Use different software to explore effects
	Use Blubots to sequence a debug,	and/or saved files, edit work by adding ${f B}{I\!U}$	such as transparency and colour,
	create own sequences as well as	Begin to introduce some keyboard shortcuts -	manipulate picture to imitate different
	specified shapes and routes, repeat	ensure shift button is used when writing capital	artists, copy/paste/edit images from the
	algorithms and begin to explain the	letters mot caps lock	Internet
	procedure of coding		Create a photo story understanding
		<u>YEAR 4</u>	how digital images work using
	<u>YEAR 4</u>	<u>YEAR 4</u> Use features such a spell check, paragraphs,	how digital images work using vocabulary such as pixels, types, effects,
	<u>YEAR 4</u> Use Scratch to understand more	YEAR 4 Use features such a spell check, paragraphs, indent, bullet points	how digital images work using vocabulary such as pixels, types, effects, manipulate
	<u>YEAR 4</u> Use Scratch to understand more complex algorithms, debug pre-made	YEAR 4 Use features such a spell check, paragraphs, indent, bullet points Use keyboard short cuts for copy and paste	how digital images work using vocabulary such as pixels, types, effects, manipulate Create and/or use simple sound files
	<u>YEAR 4</u> Use Scratch to understand more complex algorithms, debug pre-made animations, use basic formula (pen	YEAR 4 Use features such a spell check, paragraphs, indent, bullet points Use keyboard short cuts for copy and paste Insert text boxes into documents and add images	how digital images work using vocabulary such as pixels, types, effects, manipulate Create and/or use simple sound files
	<u>YEAR 4</u> Use Scratch to understand more complex algorithms, debug pre-made animations, use basic formula (pen up/down/forward/back), begin to	YEAR 4 Use features such a spell check, paragraphs, indent, bullet points Use keyboard short cuts for copy and paste Insert text boxes into documents and add images to this. Begin animating (PowerPoint)	how digital images work using vocabulary such as pixels, types, effects, manipulate Create and/or use simple sound files
	YEAR 4 Use Scratch to understand more complex algorithms, debug pre-made animations, use basic formula (pen up/down/forward/back), begin to build algorithms for different shapes	YEAR 4 Use features such a spell check, paragraphs, indent, bullet points Use keyboard short cuts for copy and paste Insert text boxes into documents and add images to this. Begin animating (PowerPoint)	how digital images work using vocabulary such as pixels, types, effects, manipulate Create and/or use simple sound files
	YEAR 4 Use Scratch to understand more complex algorithms, debug pre-made animations, use basic formula (pen up/down/forward/back), begin to build algorithms for different shapes At Firs Farm children will:	YEAR 4 Use features such a spell check, paragraphs, indent, bullet points Use keyboard short cuts for copy and paste Insert text boxes into documents and add images to this. Begin animating (PowerPoint) Children at Firs Farm will:	how digital images work using vocabulary such as pixels, types, effects, manipulate Create and/or use simple sound files Children at First Farm will:
Voor 5	YEAR 4 Use Scratch to understand more complex algorithms, debug pre-made animations, use basic formula (pen up/down/forward/back), begin to build algorithms for different shapes At Firs Farm children will:	YEAR 4 Use features such a spell check, paragraphs, indent, bullet points Use keyboard short cuts for copy and paste Insert text boxes into documents and add images to this. Begin animating (PowerPoint) Children at Firs Farm will:	how digital images work using vocabulary such as pixels, types, effects, manipulate Create and/or use simple sound files Children at First Farm will:
Year 5	YEAR 4 Use Scratch to understand more complex algorithms, debug pre-made animations, use basic formula (pen up/down/forward/back), begin to build algorithms for different shapes At Firs Farm children will: Use Scratch to include loops,	YEAR 4 Use features such a spell check, paragraphs, indent, bullet points Use keyboard short cuts for copy and paste Insert text boxes into documents and add images to this. Begin animating (PowerPoint) Children at Firs Farm will: Insert, edit, add and delete tables	how digital images work using vocabulary such as pixels, types, effects, manipulate Create and/or use simple sound files Children at First Farm will: Use Sketch Up and other software to

	selection and repetition, changes of	Edit documents and sentences by highlighting and	animations using all skills above as well
	input, create different output	dragging	as simple video clips
	Understand what a physical system is	Move sections by copying and pasting using short	
	Create a procedure to draw any	cuts	
	regular polygon using number of	When using PowerPoint introduce and use	
	sides and length	transition, animation, hyperlink and re order	
		slides	
	Robot project		
Next steps	Children at Firs Farm will: Use Scratch to create their own game including the use of timetables.	Children at Firs Farm will: Copy and paste from the Internet into documents, remove web formatting, save work as pdf When using PowerPoint add sound files and videos. Use presentation mode When using Publisher insert pictures, group and layer objects, make and insert tables. Introduce links to spreadsheets via Excel	Children at Firs Farm will: Video and record events (cross curricular) Edit these in a software adding different effects, transitions and text Use Multimedia within PowerPoint
Prior	EYFS	EYFS	EYFS
knowladaa	Have access to Beebots and sequence	Have access to keyboards to press and use during	Use Paint to mark make
Knowleage Veen 6	cards	Free Flow learning	Locate the eraser button to undo any
– 1ear o	See that Beebots can move	Name some buttons on a keyboard	mark making

Locate certain buttons on Beebots Name some parts of a computer (screen) (forward/back/stop) Name other technology objects (camera, IPad) YEAR 1 Use different paint software to create YEAR 1 YEAR 1 images using tools such as brush, undo, Use a Beebots and/or Beebots Use and name parts of a computer and keyboard fill, spray, shapes Begin typing sentences using the keyboard (no software to; predict what might happen, move forward and touch typing) YEAR 2 backward, control an object, create Use different software to create images patterns, begin to understand, debug YEAR 2 that us a variety of tools, artists and Use and name parts of different devices e.g. and follow algorithms their effects, copy and paste images from the Internet and Word IPads, laptops YEAR 2 Begin typing grammatically correct sentences Use a Beebots and/or Beebots punctuated accurately. YEAR 3 software to sequence an algorithm, Use features of programs (Word/Excel, etc.) to Use paint and other software to copy predict a route that a Beebots will change basics – font size and type, colour, and paste between programs, repeat table, include 90 degree turns in their alignments, save and retrieve work, inserting and patterns, reflect images, change brush algorithms, create own sequences formatting images, selecting text size and effect, rotate and flip images and note, edit and debug a sequence and manipulate shapes of movements YEAR 3 Use features of programs to add WordArt, select YEAR 4 YEAR 3 text, copy and paste, insert images from web Use different software to explore and/or saved files, edit work by adding $\mathbf{B}\underline{N}$ effects such as transparency and

Use Blubots to sequence a debug, create own sequences as well as specified shapes and routes, repeat algorithms and begin to explain the procedure of coding

<u>YEAR 4</u>

Use Scratch to understand more complex algorithms, debug pre-made animations, use basic formula (pen up/down/forward/back), begin to build algorithms for different shapes

<u>YEAR 5</u>

Use Scratch to include loops, variables, decomposition, sequences, selection and repetition, changes of input, create different output Understand what a physical system is Create a procedure to draw any regular polygon using number of sides and length

Begin to introduce some keyboard shortcuts ensure shift button is used when writing capital letters mot caps lock

YEAR 4

Use features such a spell check, paragraphs, indent, bullet points Use keyboard short cuts for copy and paste Insert text boxes into documents and add images to this. Begin animating (PowerPoint)

<u>YEAR 5</u>

Insert, edit, add and delete tables Introduce top tabs; page layout, insert, design Edit documents and sentences by highlighting and dragging Move sections by copying and pasting using short cuts When using PowerPoint introduce and use transition, animation, hyperlink and re order slides

colour, manipulate picture to imitate different artists, copy/paste/edit images from the Internet Create a photo story understanding how digital images work using vocabulary such as pixels, types, effects, manipulate Create and/or use simple sound files

<u>YEAR 5</u>

Use Sketch Up and other software to create, design and build their own animations using all skills above as well as simple video clips

	Robot project	Children at Firs Farm will:	
Year 6	Children at Firs Farm will: Use Scratch to create their own game including the use of timetables.	Copy and paste from the Internet into documents, remove web formatting, save work as pdf When using PowerPoint add sound files and videos. Use presentation mode When using Publisher insert pictures, group and layer objects, make and insert tables. Introduce links to spreadsheets via Excel	Children at Firs Farm will: Video and record events (cross curricular) Edit these in a software adding different effects, transitions and text Use Multimedia within PowerPoint

PEDAGOGY

Pedagogy at Firs Farm is essentially driven by the Subject-lead and disseminated out through Medium Term Plans. Through teacher modelling, planned questioning and providing children with their own 'hands-on' experience, we encourage all of our children to wonder about and be amazed and surprised by the technological world around them. Children use a variety of techniques to engage and be proactive in their learning such as; games, tutorials, videos, sound bites, animations, peer on peer learning, experiments and investigations. Every year group has access to the ICT Suite for their lessons for at least 2 terms of the school year as well as the use of iPads, Laptops, Beebots and other ICT equipment on a rota.

Our children's learning experiences are also enhanced through the provision of Coding days and Internet Safety days.

Children work collaboratively and develop metacognitive strategies that they can apply across other subjects e.g. presentations and STEAM projects.

ASSESSMENT

At Firs Farm, the children self-assess their unit of work by completing a *Padlet* made by the teacher at the end of each half term. Children are encouraged to explain what worked well for them, what they found challenging and how they could improve next time.

Assessment is linked in with growth mindset and metacognition and skills are reviewed frequently throughout each lesson.

Other elements of formative assessment include

- ✓ Teacher questions
- ✓ Peer support
- ✓ Independent work

Any G&T children can be identified and selected to attend a trip and/or be part of the Robots working group.

ENRICHMENT ACTIVITIES

Opportunities

• Every year children take part in an Hour of Code week as well as Internet Safety Day. They are exposed to online videos and external workshops.





- Visitors are welcomed to the school
- Trips can be organised
- Coding club (Summer 2024)
- Digital leaders (academic year 2024 -25)
- Robot project for Year 5 runs in the summer term
- Different programs (My Maths, TTTRS, Purple Mash, Microsoft Teams) accessible from home for children to practice

VEX IQ Robots

Every year, Year 5 will have the opportunity to take part in a STEAM led project as part of their computer science curriculum, building and programming robots. This will, eventually, lead to taking part in competitions with other local schools. A link with De Bohun has already been made to support this. The aim is to establish this across the academic years 21-22, 22-23, 23-24 and support staff in providing CPD so teaching and accessibility can be consistent throughout the school.

Updated February 2024