Computing Curriculum

Curriculum Intent	Intent: At Field Junior School, we aim to ensure our pupils are active, confident and safe participants in an increasingly digital world. Our computing curriculum vision is to provide our children with the digital skills they will need for forthcoming and current learning as well as success in future employment. A computing curriculum will be delivered in each year group that builds on skills learnt in previous years alongside thorough e-safety learning. When appropriate, computing lessons will be linked to other areas of the curriculum such as DT and mathematics. Our curriculum aims to ensure that our children's skills and understanding develops and increases in every year group. There will be opportunities to reinforce previous learning such as pupils' understanding of networks and the services they provide and using search technologies effectively and discerningly. All children will be given the opportunity to use a range of hardware such as iPads and laptops as well as software including: spreadsheets, word processors and scratch. Children will be given many opportunities to learn about using technology safely and how to report concerns and unacceptable behaviour. To ensure that all pupils reach their full potential, their individual needs and abilities will be recognised and developed within a caring and supportive environment that will challenge all with effective questioning. There will be opportunities to ask questions, express their opinions, build on each other's ideas, work in pairs, develop answers and solutions to their own questions and redirect misconceptions. Equal Opportunities: All children should be encouraged and praised in computing. Computing lessons make use of our dedicated ICT suite. Every classroom should have a laptop and Smart Whiteboard with access to iPads, laptops, cameras and recording equipment as necessary. Every child should be regularly informed about E-Safety in line with our E-Safety policy.

Computing Curriculum

	YEAR 3	YEAR 4	YEAR 5	YEAR 6
E Safety NC: Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	• Know ways to report concerns and reflect on behaviour online including understanding what to do if they get a pop up or unwanted message	• Recognise acceptable/unacceptable behaviour on the internet and identify ways of reporting concerns about content and contact, including cyber bullying	• Use technology safely by understanding the importance of keeping personal information safe, including using usernames, passwords and avatars, particularly for gaming	• Identify ways of using communication technology safely, respectfully and responsibly • Know how to use social media sensibly and know age limits for these • Know when and how to seek help
Computers and Networks NC: 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 NC: Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	• Understand what a network is and how it can provide services • Know how to Logon to the school network • Be able to load files from the network • Be able to save work on the network	• Understand how networks provide multiple services including the world wide web and the Internet • Know the features of a web page and their function • Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content		• Understand how the internet provides different opportunities for communication and collaboration, including copywrite and plagiarism • Use search technologies effectively and be discerning in evaluating digital content

| Programming

NC: Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

NC: use sequence, selection, and repetition in programs; work with variables and various forms of input and output

NC: Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs | • Design, write and debug programs that accomplish specific goals using sequence and simulating physical systems

• Solve problems by decomposing them into smaller parts | • Design, write and debug programs that accomplish specific goals including using sequence, selection and input

• Use logical reasoning to explain how some simple algorithms work

• Detect and correct errors in algorithms and programs

• Work with simple variables

• Work with various forms of input and output

• Solve problems by decomposing them into smaller parts | • Design, write and debug programs that accomplish specific goals including simulating physical systems, using repetition and using selection and input

• Work with variables

• Work with various forms of input and output

• Solve problems by decomposing them into smaller parts | • Design, write and debug programs that accomplish specific goals including using sequence, selection, repetition and variables

• Solve problems by decomposing them into smaller parts |
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Data Handling NC: 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 NC: Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	• Understand what a database is • Collect data and enter it into a prepared database (Excel) • Use basic search techniques (Excel)	• Know how to perform simple calculations on a spreadsheet (Excel) • Enter data into a spreadsheet and produce a graph of the data (Excel) • Present data in different ways	• Carry out single step searches on a database (Excel) • Carry out complex searches on a database (Excel) • Consider the effects of errors in a database • Be able to identify errors in a database • Produce and analyse graphs of information • Create a database (Excel) • Conduct a survey and collect data • Enter data into the database (Excel)	• Perform more complex calculations on the data including % (Excel) • Analyse the data by creating graphs of different sections of data and considering results • Select, use and combine a variety of software to present data and information (Excel, Word and Internet)

Select use and combine a variety of software to create a range of content that accomplishes given goals NC: 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	• Edit information in prepared documents (Word) • Copy and paste pictures into prepared documents (Word) • Create a simple flip animation (PowerPoint) • Create a stop motion animation using multiple slides (PowerPoint) • Use a painting program to create an image • Create an image by manipulating shapes (Word)	• Create and edit documents (word) • Create and manipulate text boxes with background colours and boarders • Copy and paste images and text • Create a PowerPoint to present information • Add simple transitions and animation effects (PowerPoint) • Use a range of digital devices to collect data and information • Use iPads to take pictures (science investigation) • Use iPads to record data (e.g. decibel sound meter app)	• Create documents to record, analyse and present information	• Create a plan of a website using a variety of tools in Word • Create a working model of a website in PowerPoint including menus and hyperlinks • Edit and manipulate sound elements in Scratch