Broadway Junior School

Subject: Computing Topic: Spreadsheets Year: 6 Term: Spring 2

NC Purpose of Study
A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the 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.

Intent	Implementation	Impact
Our vision at Broadway Junior School is that all pupils should enjoy Computing and become confident, passionate and responsible users of technology both inside and outside of school. Through interesting, relevant and inclusive lessons, they will be able to leave Year 6 with a good understanding of how computers and the Internet work, along with being able to complete tasks on them creatively, independently and reflectively for a range of purposes and audiences. The Computing curriculum at Broadway is designed to enable pupils to embrace and utilise new technologies through the application of essential knowledge, principles and concepts. Technology is everywhere and will play a pivotal part in students' lives, therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our pupils to be creators, not just consumers of content and our broad curriculum encompassing 'Coding & Computational Thinking', 'Information Technology', 'Computing Systems & Networks' and 'Online Safety' reflects this. We recognise that the best prevention for a lot of issues we currently see with technology and social media is through education.	Computing skills are taught explicitly at Broadway with every pupil receiving dedicated Computing lessons throughout each half-term. Each half-term has a focus on either Information Technology, Coding & Computational Thinking or Computing Systems & Networks with Online Safety lessons also included throughout each half-term. The skills acquired are then embedded throughout the curriculum. Learning is sequenced to build knowledge, skills and vocabulary. Throughout units of work teachers encourage children to make links between past learning and new content. We recognise prior learning and build on it with memorable learning experiences and provide targeted support where necessary. The units address the requirements of the National Curriculum and are broken down to cover all elements of the different strands of Computing. The progression of knowledge and skills statements build year on year to deepen and challenge our learners. We use Purple Mash as the core of our curriculum tied with Teach Computing and activities from Project Evolve to create a comprehensive curriculum providing full curriculum coverage and a variety of skills for our children.	The impact of our Computing curriculum is that we provide pupils with a set of skills to embed a lifelong love of learning and that they build on the knowledge and skills from previous learning. We ensure that every child can become a confident user of technology, while being able to use it to accomplish a wide variety of goals, both at home and in school. Children will have a secure and comprehensive knowledge of how technology works in the world around them and will develop their understanding of how to deal with online situations safely. Children will become confident global citizens. The knowledge organisers outline what we want the children to know within each unit. By nature Computing is going to be practical and hands on. We give the children the opportunity to record individually their responses to key questions. Teachers ensure that children understand and apply the correct vocabulary linked to different elements of the curriculum and this is also recorded within the floor books. Prior and future learning links are also included, so that there is a clear sequence in relation to the progression of skills and activities.

Key Vocabulary
Cell Row A horizontal line of cells. (numbered) Column (Lettered) Formatting Formula Calculate. Function Chart Sort Filter Workbook Worksheet Sum

Knowledge	Skills
• To understand and use basic formatting in Excel. • To develop skills in using basic functions in Excel. • To create and format charts in Excel. • To sort and filter data within a spreadsheet. • To understand and use advanced functions in Excel. • To combine Excel skills to create an effective spreadsheet for a given purpose.	• I can identify cells, rows, and columns. • I can enter and edit data in a cell. • I can apply simple formatting to text. • I can understand that functions are pre-set formulae that complete specific jobs. • I can use the SUM, AVERAGE, MAX, and MIN functions. • I can create bar, pie, and line charts. • I can sort data alphabetically and numerically. • I can apply filters to a large dataset. • I can sort data and use filters to find specific information. • I can apply titles and labels to charts. • I can format charts to make them easier to read. • I can select appropriate functions to complete a given task. • I can understand and use COUNT, COUNTA, COUNTIF and IF functions.

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	• I can predict the outcome of formulae that use advanced functions. • I can use advanced functions to help me answer questions. • I can identify common spreadsheet error values. • I can use formulas and functions to analyse a spreadsheet. • I can create and format a spreadsheet effectively.

Learning Objectives/End Points					
To understand and use basic formatting in Excel. Lesson 1	To develop skills in using basic functions in Excel. Lesson 2	To create and format charts in Excel. Lesson 3	To sort and filter data within a spreadsheet. Lesson 4	To understand and use advanced functions in Excel. Lesson 5	To combine Excel skills to create an effective spreadsheet for a given purpose. Lesson 6

Careers	
Linking Curriculum Learning to Careers Discuss how the skills developed in this unit are used in a range of careers, including: Data Analyst – Uses spreadsheets and databases to find patterns and answer questions. Accountant – Uses spreadsheets to track money, budgets, income, and expenses. Database Administrator – Organises and maintains databases so information is stored safely and efficiently. Business Analyst – Uses data to help companies make better decisions. Financial Analyst – Studies financial information using spreadsheets and databases. Data Scientist – Works with large amounts of data to discover trends and make predictions. Marketing Analyst – Analyses customer and advertising data to understand what works. Stock/Inventory Manager – Uses databases and spreadsheets to keep track of products and supplies. Project Manager – Uses spreadsheets and databases to track budgets, tasks, schedules, and resources. HR (Human Resources) Analyst – Uses employee databases and spreadsheets to analyse staffing, salaries, and recruitment. Transferable skills Data management: Organising, entering, editing and formatting information accurately. Numerical reasoning: Using formulas and functions such as SUM, AVERAGE, MAX, MIN, COUNTIF and IF to calculate and interpret results. Problem-solving: Selecting appropriate spreadsheet functions to answer questions and investigate problems.	**Learning from career and labour market information** Explore how spreadsheets are used in business, finance, science, healthcare and technology, and how data skills support a wide range of careers, including opportunities in the North East. **Addressing the needs of each pupil** Provide clear demonstrations, scaffolded spreadsheet tasks and opportunities for pupils to work at different levels of challenge. Encourage pupils to develop independence when selecting functions, formatting data and solving problems. **Linking curriculum learning to careers** Apply mathematical and computing skills through formulas, functions, charts, sorting and filtering. Explore how professionals use Excel to analyse information, organise records and present findings. **Encounters with employers and employees** Discuss how accountants, business analysts, data analysts and other professionals use spreadsheets in their daily work. Where possible, invite a professional to demonstrate how spreadsheets support workplace decisions. **Experiences of workplaces** Use realistic workplace scenarios, such as calculating a budget, analysing survey results, comparing sales figures or organising records, to demonstrate how spreadsheets are used to complete practical tasks. **Encounters with further and higher education** Introduce pupils to opportunities to develop spreadsheet and data skills through secondary education, college, university, apprenticeships and vocational qualifications.

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Data analysis: Sorting and filtering datasets to identify patterns, trends and specific information. Communication: Creating clear, well-labelled charts to present findings and explain conclusions. Attention to detail: Checking formulas, identifying spreadsheet errors and ensuring information is accurate. Digital literacy: Using Excel tools and features to create effective spreadsheets for different purposes. Decision-making: Interpreting spreadsheet results and using evidence to make informed choices.	