Broadway Junior School

Subject: Computing Topic: Networks Year: 6 Term: Autumn 1

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
Email Network Web Browser Internet Router Website Internet Chat Video Call Wi-Fi LAN (Local Area Network) WAN (Wide Area Network) World Wide Web (WWW)

Knowledge	Skills
• To understand what a computer network is and identify examples of networks at home, school and in the wider world. • To understand the difference between the internet and the World Wide Web and explore the services they provide. • To explore how the internet can be used for communication and collaboration, and how to do this safely and respectfully. • To explore who is in charge of the internet and how rules and website blocking can affect people, society and online platforms.	• know what a computer network is. • I can recognise different types of networks. • I can explain how devices connect and communicate on a network. • I can explain what the internet is and how it works. • I know the World Wide Web is a service on the internet. • I can identify different ways to communicate online. • I understand basic rules for respectful online communication. • I can recognise both the benefits and potential risks of online communication. • I can explain how the internet helps people communicate and work together. • I can explain who controls access to the internet and why. • I understand what censorship is and can give examples. • I understand how internet rules can help or harm different people.

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Learning Objectives/End Points			
To understand what a computer network is and identify examples of networks at home, school and in the wider world. Lesson 1	To understand the difference between the internet and the World Wide Web and explore the services they provide. Lesson 2	To explore how the internet can be used for communication and collaboration, and how to do this safely and respectfully. Lesson 3	To explore who is in charge of the internet and how rules and website blocking can affect people, society and online platforms. Lesson 4

Careers

Linking Curriculum Learning to Careers

Discuss how the skills developed in this unit are used in a range of careers, including:
Network Engineer
Network Administrator
IT Support Technician
Cybersecurity Analyst
Telecommunications Engineer
Systems Administrator
Computer Network Architect
Software Developer
Web Developer
Cloud Engineer
Internet Service Provider Technician
Digital Communications Officer
Information Security Specialist
IT Project Manager

Transferable skills

Digital literacy: understanding how networks, internet services and online communication tools work.
Problem-solving: investigating how devices connect and how networks enable information sharing.
Critical thinking: considering who controls internet access and how censorship and website blocking can affect people.
Communication: using online tools respectfully and effectively to share ideas and collaborate.
Cyber awareness: recognising risks associated with online communication and understanding how to stay safe. Collaboration: understanding how networks enable people to work together across different locations. Ethical decision-making: considering the benefits, limitations and consequences of rules governing online access. Adaptability: recognising how digital technologies shape communication and working practices.

Learning from career and labour market information

Children explore how organisations rely on computer networks and internet services to communicate, share information and collaborate. They discover career areas such as network engineering, IT support, cybersecurity and telecommunications.

Addressing the needs of each pupil

Children explore networks and online communication through accessible explanations, practical examples and structured discussion. They consider the benefits and risks of digital communication and develop their understanding of safe, respectful and inclusive online participation.

Linking curriculum learning to careers

Children apply computing knowledge to understand networks, routers, Wi-Fi, LANs, WANs and the relationship between the internet and the World Wide Web. They explore how these systems enable communication and collaboration, linking their learning to careers in IT, networking, cybersecurity and digital technology.

Encounters with employers and employees

Children learn about the roles of network engineers, IT technicians, cybersecurity specialists and telecommunications professionals. Learning could be extended through a career video, case study or guest speaker explaining how networks are maintained and protected.

Experiences of workplaces

Children investigate how devices connect and communicate across networks and consider how workplaces use online tools to collaborate. They explore the importance of network reliability, online safety, access controls and appropriate communication in professional settings.

Encounters with further and higher education

Children recognise that computing, mathematics and technology can support further study in computer science, networking, cybersecurity and telecommunications. They begin to understand that these subjects can lead to further education, apprenticeships and technical training.