Broadway Junior School

Subject: Computing Topic: Composing beats/ Intro to AI Year: 4 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
BPM Beats per Minute. Patch Texture Dynamics Pitch Rhythm Electronic Music Pulse Synths Melody Rippler Tempo Sample

Knowledge	Skills
• To identify and discuss the main elements of music. • To understand and experiment with rhythm and tempo. • To create a melodic phrase using varied notes and pitch. • To compose a piece of electronic music.	• I can use appropriate musical language to discuss a piece of music. • I can identify sounds in a piece of music. • I can explain how a piece of music makes me feel. • I can identify and recall a simple rhythm. • I can explain what tempo is and how it affects the feel of music. • I can show an understanding of melody. • I can create a simple melodic pattern using 2Sequence and Busy Beats. • I can use a variety of notes and experiment with pitch. • I can create my own rhythm using Busy Beats.

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Learning Objectives/End Points			
To identify and discuss the main elements of music. Lesson 1	To understand and experiment with rhythm and tempo. Lesson 2	To create a melodic phrase using varied notes and pitch. Lesson 3	To compose a piece of electronic music. Lesson 4

Careers	
Linking Curriculum Learning to Careers Discuss how the skills developed in this unit are used in a range of careers, including: Music Producer – Uses digital audio software and computers to create, arrange, and edit music. Sound Designer – Creates digital sounds and music for films, TV, video games, and other media. Game Audio Designer – Creates music, sound effects, and interactive audio for video games. Electronic Music Composer – Composes music using synthesizers, computers, MIDI, and digital audio workstations. AI Music Developer – Develops or works with AI systems that generate, modify, or assist in creating music. Transferable skills Creativity: Composing original electronic music and experimenting with sounds. Digital literacy: Using music software and digital tools to create compositions. Listening and analysis: Identifying musical elements and explaining how music affects mood. Problem-solving: Adjusting rhythm, tempo, pitch and melody to improve a composition. Experimentation: Testing different sounds, patches and textures to achieve a desired effect. Planning and organisation: Structuring musical ideas into a coherent composition. Evaluation: Listening critically and identifying strengths and areas for improvement. Communication: Using musical vocabulary to explain choices and share creative ideas.	**Learning from career and labour market information** Introduce careers such as music producers, sound engineers, composers, audio technicians, game audio designers and electronic musicians. Explore how these professionals combine musical knowledge with digital tools. **Addressing the needs of each pupil** Provide inclusive opportunities for pupils to experiment with rhythm, tempo, pitch and melody using digital music tools. Offer modelling, structured tasks and opportunities for pupils to express their creativity in different ways. **Linking curriculum learning to careers** Link using 2Sequence and Busy Beats, creating rhythms, adjusting tempo, experimenting with pitch and composing electronic music to the work of music producers, composers and sound engineers. **Encounters with employers and employees** Where possible, invite a musician, music teacher, sound engineer or other creative professional to explain how they use digital tools to compose, edit or produce music. **Experiences of workplaces** Explore how music is created in recording studios, radio stations, film and television production, game development studios and live performance venues. Consider how digital software helps professionals layer sounds, create rhythms and develop musical ideas. **Encounters with further and higher education** Introduce pupils to opportunities to develop musical and digital skills through school music activities, music technology clubs, college courses, university study and vocational training in music production and audio engineering