Intent

Computing

At Burnt Tree Primary School, we understand the immense value that technology plays not only in supporting the Computing and whole school curriculum but overall in the day-to-day life of our school. Therefore, we aim to model and educate our pupils' on how to use technology that reflects our school rules; being safe, responsible and respectful whilst promoting a positive attitude towards Computing and become excited learners. Our aims are to fulfil the requirements of the National Curriculum for Computing whilst also providing enhanced collaborative learning opportunities, engagement in rich content and supporting pupil's conceptual understanding of new concepts, which support the needs of all our pupils. When teaching computing, we equip children with the skills required to use computers effectively to enable them to maximise their potential. To do so, we deploy teaching strategies through the Purple Mash scheme of work that promotes resilience, independence, critical thinking, communication skills and problem solving.

Our Computing curriculum aims to develop the heart and mind of every child. Computing teaching at our school has links with mathematics, science and design and technology and our aim is to provide a broad and balanced curriculum whilst ensuring that pupils become digitally literate and become resilient warriors. We aim to model and educate our pupils' on how to use technology that reflects our school rules; being safe, responsible and respectful whilst promoting excited learners. We deploy teaching strategies that promotes resilience, independence, critical thinking, good communication skills and problem solving strategies. We provide a broad and balanced curriculum to ensure that pupils become knowledgeable and digitally literate; they can develop their ideas through, information and communication technology.

Technology is ever evolving and we aim to develop pupils who can use and express themselves, develop their ideas through, information and communication technology at a suitable level for the future workplace and as active participants in a digital world. Children understand and follow the SMART E-Safety rules to keep themselves safe whilst minimising risk to themselves and others and know who to contact if they have concerns. The aims of our computing journey are to develop pupils who are curious, competent, confident and creative learners of information and communication technology. They are equipped with the capability to use technology throughout their lives. They apply their learning in a range of contexts, e.g. at school and at home to become responsible, global citizens in a computing world

Implementation

To ensure high standards of teaching and learning in computing, we implement a curriculum that is progressive throughout the whole school. Our implementation of the computing curriculum is in line with 2014 Primary National Curriculum requirements for KS1 and KS2 and the Foundation Stage Curriculum in England. This provides a broad framework and outlines the knowledge and skills taught in each key stage.

Computing teaching will deliver these requirements through our half-termly units. Our Computing progression model is broken down into three strands that make up the computing curriculum. These are Computer Science, Information Technology and Digital Literacy. Computer Science underlines the knowledge and skills relating to programming, coding, algorithms and computational thinking. Information Technology underlines the knowledge and skills relating to communication, multimedia and data representation and handling. Digital Literacy underlines the knowledge and skills relating to online safety and technology uses all of which are covered weather combined or discreetly.

To ensure high standards of teaching and learning in computing, we implement a curriculum that is progressive throughout the whole school. We use and follow the Purple Mash scheme of work from Years 1-6, ensuring consistency and progression throughout the school. The Purple Mash scheme of work enables clear coverage of the computing curriculum whilst also providing support and CPD for less confident teachers to deliver lessons.

In EYFS, children learn about communication and language, PSED, physical development, Literacy, Mathematics, Understanding the world and Expressive arts and design. They use a range of unplugged activities in their play and free flow as well. Mini mash which is used to accompany planning and ideas.

In key stage one, children learn about algorithms, creating and debugging simple programs. They use technology purposefully to create, organise and manipulate digital content. They recognise common uses of information technology beyond school. They learn how to use technology safely and respectfully and know where to go for support when they have concerns about content. Children study a range of topics in their computing lessons. Children learn to code, to connect, communicate and collect.

In key stage two, children learn to design, write and debug programs that accomplish specific goals. They learn to work with programs that allow them to work with variables and various forms of input and output. They will explain how simple algorithms work and detect errors. They will use search technologies effectively and use it effectively and safely.

We teach the National Curriculum, supported by a clear skills and knowledge progression. This ensures that skills and knowledge are built on year by year and sequenced appropriately to maximise learning for all children.

Lessons are broken down into weekly units, usually with two units taught per half-term. Units are practical and engaging and allow computing lessons to be hands on. Units cover a broad range of computing components such as coding, spreadsheets, Internet and Email, Databases,

Communication networks, touch typing, animation and online safety.

When teaching computing teachers can follow the children's interests to ensure their learning is engaging, broad and balanced. Teachers should ensure that ICT and computing capability is also achieved through core and foundation subjects and where appropriate and necessary ICT and computing should be incorporated into work for all subjects using our wide range of interactive ICT resources. Through our Purple Mash subscription our teachers can deliver thematic, cross curricular lessons that also follow children's interests and provide flexibility. Purple Mash has an online portal of age-appropriate software, games and activities as well as topic materials and materials to support children's learning in other subject areas for all key stages. Computing lessons will also use the Purple Mash software to 'make music' using the 2Sequence program, design and make using the 2Animate software and make links with maths through spreadsheets using 2Calculate. The children design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

Computing teaching is practical and engaging and a variety of teaching approaches and activities are provided based on teacher judgement and pupil ability. We have a wide range of resources to support our computing teaching. Pupils may use laptops or iPads independently, in pairs, alongside a IT support or in a group with the teacher. Teachers and pupils are also aware of the importance of health and safety and pupils are always supervised when using technology and accessing the internet.

Our pupils are fully encouraged to engage with ICT and technology outside of school. Each teacher and pupil has their own unique Purple Mash login and password accessed through a single login on Wonde. Computing work can be stored and saved using pupil log in details and homework or '2do's' can also be set for pupils to access and complete tasks at home that link with their current class learning.

We provide a variety of opportunities for computing learning inside and outside the classroom. Computing and safeguarding go hand in hand so we provide a huge focus on internet safety inside and outside of the classroom. Additional to all pupils studying an online safety unit through their computing lessons, every year we also take part in National Safer Internet Day in February. The Computing co-ordinator alongside class teachers will plan additional internet safety lessons and activities to take part in following a specific yearly theme. Internet Safety assemblies are also held as well as parent internet safety workshops and parent home activities.

Our Digital Leaders support the teaching of computing and help children develop confidence and leadership skills through coding and blogging activities. They also provide meaningful support to teachers and peers throughout the school.

Impact

Our Computing Curriculum is high quality, well thought out and is planned to demonstrate progression and build on and embed current skills. Children will be equipped with computing knowledge and skills and will have an excellent knowledge of different aspects of computing. Children will enjoy learning about computing and will become independent learners who have the knowledge and skills to develop further. Children will enjoy learning about computing and will become independent learners who have the knowledge and skills to develop further. Children will be curious and knowledgeable about computing and will learn to use a range of skills within computing which allow them to connect, collect, communicate and code.

We focus on progression of knowledge and skills in the different computational components and alike other subjects discreet vocabulary progression also form part of the units of work. Fundamentally, we ask the 'why' and not just the 'how' to explore the depth of each objective within a stimulating environment that encourages children to discuss, reflect and appreciate the impact that Computing has on their learning, development and wellbeing.

If children are keeping up with the curriculum, they are deemed to be making good or better progress.

We measure the impact of our curriculum through the following methods:

- Pupil discussions and interviewing the pupils about their learning (pupil voice).
- Monitoring with our subject computing lead visits.
- Opportunities for dialogue between teachers.
- Photo evidence and images of the pupils practical learning (In EYFS and Year 1).
- A reflection on standards achieved against the planned outcomes.
- Learning walks and reflective staff feedback (teacher voice).
- Dedicated Computing leader time.

Children will be excited learners that wish to continue their lifelong learning journey in a digital world. Children will become ambitious individuals who have a thirst for learning.