



The
Boleyn
Trust



Computing Policy (2021-2022)

Introduction

At Tollgate Primary School we run a mastery curriculum. This means that all curriculum areas are a progressive model where pupils build on previous learning through their knowledge and application of clear and concise composite goals. Pupils know more and remember more through rehearsal, which leads to a deep and secure knowledge of the key components.

The use of information and communication technology is an essential part of the national curriculum and provides key skills for children for now and the future. Chromebooks, laptops, tablet digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At Tollgate Primary School, we acknowledge that it is essential that our children have access to the most relevant hardware and software to develop their skills and understanding of such technology. It is also important that children develop their online awareness whilst using internet-based hardware and software. The purpose of this policy is to state how Tollgate Primary school intends to make these provisions and how computing will be implemented across EYFS and both key stages.

Aims and Objectives

- To outline the health and safety factors linked with computing.
- To deliver an aspirational curriculum centred around the three strands of computing
- To meet the requirements of the National Curriculum programmes of study for computing
- To ensure our children become computational thinkers through the topics and activities covered through our curriculum.
- To ensure children become digitally resilient and are confident using the internet.
- Children know how to stay safe online.
- Meeting, and building on the minimum requirement set out in the National Curriculum as fully as possible; and helping all children to achieve the highest possible standards of achievement.
- Helping all children to develop the underlying skills and capability which is essential to developing Computing capability (such as problem solving, perseverance, learning from mistakes) and apply them elsewhere
- To develop a computing hub with other schools in our community and create a hub for pedagogy and sharing practice

Health & Safety

- Tollgate Primary School follow advice and guidelines set out by our in-house health and safety executive relating to use of the internet, computers, tablets and interactive white boards.
- Tollgate Primary School has a separate condensed online safety policy that all children and staff must follow to ensure technology is used effectively and safely.
- Teaching professionals within the school have a duty to monitor and look after digital equipment within our school.
- Children will be shown how to use the Chromebooks and Ipads safely and responsibly.
- All computers are safely stored in bespoke trollies designed to secure Chromebooks.
- All Trollies are regulated the ICT technician to ensure they're powered appropriately.
- Sockets and plugs must be checked during the annual safeguarding inspection. All equipment should have a sticker which confirms it has been checked and approved.
- All technology must be kept away from sources of water; wet play areas and in-classroom sinks.

Curriculum leader

The subject leader within the school is responsible for providing professional leadership and management for computing in the school. It is their duty to monitor standards to ensure high quality teaching and learning is taking place within the school. Monitoring is an essential practice exercised at least once a term and provides an opportunity for teachers to reflect and gain feedback from computing related work. The subject leader will also provide summative data which shows the school's progress in computing in formal ELT meetings. Monitoring will come in all aspects including:

- Monitoring teachers planning
- Board/slide monitoring
- Digital outcomes audits
- Pupil Voice

Computing at Tollgate Primary School

The National Curriculum presents the subject as one lens through which pupils can understand the world. There is a focus on computational thinking and creativity as well as opportunities for creative work in programming and digital media. The national curriculum also explicitly indicates what schools need to consider in order for children to feel safe online.

Through the national curriculum's programme of study, we have created three strands in which our curriculum is based upon:

1. Online Safety
2. Digital Literacy
3. Computer Science

Children in every year group are taught skills based around these three areas in a progressive, sequenced way. We have taken into consideration the importance of children's schema and ensuring children learn the right skills at the right time: to avoid misconceptions. From year one, there is a huge emphasis on developing digital literacy skills which ultimately enable children to use the online-based hardware and software we have available at our school.

There is also a significant emphasis on online safety due our curriculum being centred around the online cloud-based software: J2E.com.

Curriculum Development & Organisation

The national curriculum for computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Are responsible, competent, confident and creative users of information and communication technology

Achieving Mastery

At Tollgate Primary School we run a mastery curriculum. This means that all curriculum areas are designed as a progressive model where pupils build on previous learning through their knowledge and application of clear and concise composite goals. Pupils know more and remember more through rehearsal, which leads to a deep and secure knowledge of the key components. At Tollgate we strive to deliver exceptional lessons where all children are expected to meet the learning objective and achieve mastery. We recognise the fact that there are children of widely different artistic abilities in all classes and we provide suitable pathways for all children to achieve the learning objective. These pathways include:

- Adaption
- Support
- Deepening Understanding
- Lowest 20% Toolkit

Adaption: is the altering or changing of the task so it is accessible for SEND children. The adaption of task should take into consideration the learning objective, stage of computational learning the child is at and barriers to learning a child may encounter

Support: Support is any resource which may assist a pupil in achieving the learning objective. This may take the form of assistance from an adult (teacher or teacher or assistant), a modelled example of what is needed to succeed in the lesson or any other resource that can help the children achieve mastery

Deepening Understanding: Children who have met the objective of the lesson can deepen their understanding of the component or composite goal by completing a task that encourages a child to apply or explain the knowledge and skills they have acquired.

Lowest 20% toolkit: These are strategies aimed at the lowest 20% children in your class. They are strategies to enable children working within the lowest 20% to access and meet the demands of our mastery curriculum. These strategies include; Live Modelling, Support or scaffold, varied questions, setting the 'Bigger Picture', key vocabulary, 1:1 support, 1:2 Support and carefully planned independent learning time.

We plan the topics in Computing so that they build upon prior learning. Children of all abilities have the opportunity to develop their skills and knowledge in each unit and, through planned progression built into the scheme of work, we offer them an increasing challenge as they move up the school.

Computing Curriculum Rationale

Our school children follow a bespoke computing curriculum designed internally by the head of computing at Tollgate. This curriculum is based around the programmes of study described in the National Curriculum and is designed specifically for our children. The detailed medium-term plans have been meticulously sequenced to allow children to develop the right skills at the right time which will ultimately allow them to progress seamlessly through each teaching term. Teachers are given a computing curriculum overview in which they can see what they need to teach each term and set out the big picture to their children: What they will be learning and why they are learning it.

The Early Years Foundation Stage

Although technology has been removed from the 'Understanding of the World' Early Years Foundation stage curriculum, technology will still be taught in the EYFS at Tollgate. We believe children need to be taught technology in order to be ready to excel in Year 1 Computing. As well as this, we believe technology can improve subject skills in the seven areas of learning in EYFS.

Skills:

- Exploring different mechanisms (jack in the box) Nursery
- Recognising technology in various locations
- Exploring and playing with a range different technology e.g beebots, Ipads and interactive whiteboards
- Exploring old technology such as typewriters and mechanical toys
- Selecting technology for a particular purpose
- Recognise how technology is used in everyday life (Microwave, alarm clock, traffic light)

The Computing Curriculum

- Computing curriculum is bespoke and designed to be aspirational for our pupils
- Curriculum has been designed with detailed long- and medium-term plans for teachers to follow
- Curriculum explicitly explains to teachers what they're teaching and why they are teaching it
- Curriculum has been intentionally designed to build on children's prior learning
- There is a progressive skills model for all three strands (computer science, digital literacy and Online safety)
- Curriculum has dedicated online safety units of work to ensure children understand the dangers of the internet.
- Curriculum has clear beginning and end points where children will produce a piece of work
- Units of work in upper key stage 2 that goes beyond the national curriculum.

Our aim is for our children to leave year six fully prepared and ready for KS3 by being confident computational thinkers and digitally resilient.

Internet Safety

Internet access is planned to enrich and extend learning activities across the curriculum. However, we have acknowledged the need to ensure that all pupils are responsible and safe users of the Internet and other communication technologies both in school and outside. An Internet safety policy has been drawn up to protect all parties. We use ZIP IT, BLOCK IT, FLAG IT in Reception and Year 1 (Appendix A) to help children keep safe online. S.M.A.R.T (appendix B) is the acronym used for Years 2, 3 and 4. The 4Cs (Conduct, Content, Cyber Crime, Contact) of child risk (Appendix C) is what children are made aware of in Years 5 and 6. To further ensure the safety of the children we teach each class the rights and responsibilities of using the Internet.

Computing and Inclusion

At our school, we teach computing to all children, whatever their ability and individual needs. Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our computing teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with: special educational needs; those with disabilities; those with special

gifts and talents; and those learning English as an additional language. We take all reasonable steps to achieve this.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors: classroom organisation, teaching materials, the pitch of learning objective; teaching style and variation– so that we can take some additional or different action to enable the child to learn more effectively (e.g. a lot of software can be differently configured for different ability ranges).

Intervention through School Action and School Action Plus will lead to the creation of an Individual Education Plan (IEP) for children with special educational needs. The IEP may include, as appropriate, specific targets relating to computing. In some instances, the use of computing has a considerable impact on the quality of work that children produce, by increasing their confidence and motivation and by enabling children to work more independently.

Equality

Under the Equality Act 2010 we have a duty not to discriminate against people on the basis of their age, disability, gender, gender identity, pregnancy or maternity, race, religion or belief and sexual orientation. As such, we believe that it is in line with the Equality Act 2010 as it is fair, it does not prioritise or disadvantage any pupil and it helps to promote equality at this school.

Assessment

Assessment for children's work in computing is on-going with progress made reported at the end of each term. Children can obtain three forms of judgement over the course of the year: Working below, working at or working above expected level. Assessment is undertaken through:

- Subject leader monitoring
- Teacher formative assessment strategies
- Weekly child digital outcomes
- Summative assessment tasks
- Children take part in topic quizzes, this is used for the teacher to assess the key knowledge retained by pupils in each class.

This Document was written in support with:

E-Safety Policy on Tollgate Website

Acceptance Use Policy Tollgate Website

Appendix A



Appendix B

Be smart on the internet

Childnet International
www.childnet.com

S SAFE Keep safe by being careful not to give out personal information – such as your full name, email address, phone number, home address, photos or school name – to people you are chatting with online.

M MEETING Meeting someone you have only been in touch with online can be dangerous. Only do so with your parents' or carers' permission and even then only when they can be present.

A ACCEPTING Accepting emails, IM messages, or opening files, pictures or texts from people you don't know or trust can lead to problems – they may contain viruses or nasty messages!

R RELIABLE Information you find on the internet may not be true, or someone online may be lying about who they are.

t TELL Tell your parent, carer or a trusted adult if someone or something makes you feel uncomfortable or worried, or if you or someone you know is being bullied online.
You can report online abuse to the police at www.thinkuknow.co.uk

THINK UK KNOW

www.kidsmart.org.uk

KidSMART Visit Childnet's Kidsmart website to play interactive games and test your online safety knowledge. You can also share your favourite websites and online safety tips by Joining Hands with people all around the world.

The “4C’s” of Child Risk

