

John Randall Primary School and Nursery

Statement of Intent for Computing

Intent

Why do we teach this? Why do we teach this in the way that we do?

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.

At John Randall Primary School, our vision is to support children in becoming creative, independent learners and ensure they develop a healthy relationship with technology. At our school we value and recognise how the contribution of technology can benefit all pupils, staff, parents, governors and society. We strive to provide safe opportunities in computing to motivate, inspire and raise standards across the curriculum. Everyone in our school will be equipped with the digital skills to meet developing technology with confidence, enthusiasm and prepare them for a future in an ever-changing world. Our computing curriculum is intended to be ambitious and designed to give all pupils, regardless of background, the equal opportunity to gain the knowledge and cultural capital they need to succeed in life and in future education.

Our computing curriculum is designed to be easy to follow, with logical sequenced steps that will equip all children with essential skills and knowledge they need to use technology safely and creatively. It has numerous cross circular links with art, design and technology, mathematics and science. When planning we ensure that children can build on their understanding as each new concept is taught with opportunities for children to consolidate and reapply their skills and knowledge throughout the year. Each computing unit is planned to provide new challenges and variety, to ensure we keep the child's interest as a maximum. Our computing units are organised into a series of hour long whole-class lessons with every unit having reflection and assessment points.

Here at our school we believe that safety is paramount. We promote and model a balanced digital life, recognising that amongst the many positives that technology has to offer, risks exist and children need to be taught to manage their digital lives properly. We strive to model and educate our children to use technology creatively, positively, responsibly and safely. Our curriculum supports the key aims of the government's Internet Safety Strategy (Digital Literacy/UK Council for Child Internet Safety (UKCCIS) framework) of supporting children to stay safe and make a positive contribution online, as well as enabling teachers to develop effective strategies for understanding and handling online risks. Personal, Social, Health and Economic (PSHE) education is delivered through the use of Jigsaw which is the government's Teaching Online Safety in School (2019) for a Connected World.

Implementation

What do we teach? What does it look like?

At John Randall Primary School the requirements of the Computing Curriculum are taught through half-termly units, where the children have access to a computer or an iPad. The curriculum at our school is carefully mapped out to ensure that pupils acquire knowledge, vocabulary and skills in a well-thought out and progressive manner, with each teacher following the Knowsley Computing Scheme of Work and progression document. The Knowsley scheme highlights the knowledge, skills and vocabulary for each year group and is progressive from year to year. New learning is based upon what has been taught before and prepares children for what they will learn next. Every unit has a clear end point and an end product which children work towards on their learning journey. The teaching style that we adopt is as active and practical as possible although at times we do give children direct instructions on how to use hardware and software. We teach computing both discretely and cross curricular when clear links with other subjects are present.

Our Computing units and progression model is broken down into four strands that make up our computing curriculum. These are Essential Skills, Computer Science, Information Technology and Digital Literacy.

Essential Skills: ensure the children have the core basic skills to use multiple devices, this is designed to promote independence.

Computer Science: underlines the knowledge and skills relating to computing.

Information Technology: underlines the knowledge and skills relating to digital content.

Digital Literacy: underlines the knowledge and skills relating to online safety.

Our school believes the role of the Computing subject leader is key in the successful implementation of our curriculum. We aim for all subject leaders to have the knowledge, expertise and practical skills to be able to lead their areas effectively. In order for us to be able to deliver the best and most up to date curriculum we provide staff with high quality continued personal development (CPD) in their specific subject areas of leadership or teaching role. Ongoing CPD and training is available for staff to ensure that our challenging curriculum requirements can be met.

Subject leaders and leaders at all levels, including Governors, regularly review and quality assure the subject areas to ensure that it is being implemented well and that coverage, breadth and balance is adequate.

The children at our school have access to Seesaw, Hour of Code and Scratch Jnr as well as other links that can be found on the John Randall website. Through these platforms children are able to complete tasks and save their work virtually to share both in school and at home with parents.

Opportunities for computing learning take place both inside and outside of the classroom at John Randall Primary School. Every year group books trips and organises fieldwork appropriate to their topic and the use of technology both by child and adult is always used to capture the learning. As an example, using Book Creator to capture role play while working on Vikings a Year 5 topic. Using Moviemaker so children can create their own movies or news reports. In my role of subject leader in computing I plan fun, intriguing activities in computing that take the children away from their desks and out of their classrooms. We are very fortunate at John Randall to have extensive outdoor areas and the following lessons outside have included: Programming on the playground where children had to direct their robots around a course; Science using an app on the iPad to record sound levels around school. We also have the opportunity to incorporate food into our educational offer through working with the professional chefs in school. We aim to broaden the children's palate and horizons through experiencing world foods linked to their topics on a regular basis.

We have created a comprehensive progression document to help each staff at key stage to understand the child's learning journey through computing at our school. It demonstrates how to best embed and cover every element of the computing curriculum as knowledge/skills statements build each year to deepen and challenge our learners with core programs and apps. Planning is differentiated to meet the ranges of needs in each class. Children will be given the opportunity to work individually, in pairs or in small groups according to the nature of the task. Different outcomes may be expected depending on the ability and needs of the individual child.

Impact

What it will look like? By the time the children leave our school they will:

In our Computing Curriculum the children revisit each objective several times, via different themes helping to ensure the best results are achieved. We have developed 'What to observe in learning' grids to support monitoring of our children's learning expectations. A sample of this is included. Our school encourages discussions between staff and pupils to help the children best understand their progress and their next steps.

We constantly monitor to ensure the children have learnt the things we've taught them and if they are struggling, we can introduce additional support the next time they encounter that objective. Impact is about how we know what you do is making a difference. 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).
- Pupil assessments/feedback on content creation.
- Governor monitoring with our subject computing link governor.
- Moderation staff meetings with opportunities for dialogue between teachers.
- Photo evidence via Book Creator of the pupils' practical learning.
- Video analysis through recording of performance or practical learning lessons.
- Pupil self-reflection.
- A reflection on standards achieved against the planned outcomes (progression/what to observe in learning).
- Learning walks and reflective staff feedback (teacher voice).
- Dedicated Computing leader time.
- Book looks to scrutinise and discuss children's progress and outcomes.
- Marking of written work in books and feedback given.