Park Brow Primary School

Happy - Respect - Pride - Caring - Potential

Computing Curriculum Policy

Potentail

Respect

Pride

Happy

Caring
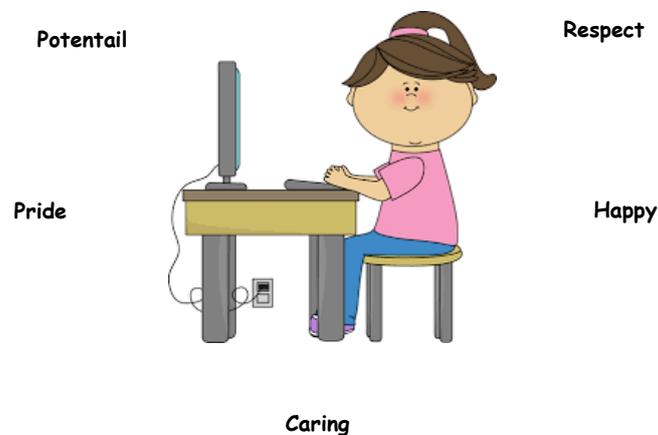
Our curriculum has been reviewed in the light of national development, including the new Primary Curriculum, published in Autumn 2014. (To be read in conjunction with the Creative Curriculum Policy.)

Intent

In an ever changing technological world we want to give our pupils the skills to be confident and competent with technology. Through topics covering Digital Literacy, Computer Science and Information Technology we encourage our children to be independent learners who trough use of a range of software can analyse, present information and evaluate their work. We ensure that children are taught the importance of internet safety and encourage the use of this skill outside of the school environment.

Computing curriculum development

The whole school curriculum has been organised and established in full consultation with all teaching staff. Staff took the "ingredients" of the new National curriculum and decided together how these ingredients could be put together in the most exciting and effective way. It is regularly reviewed and developed in accordance with DfE guidelines, the School Improvement Plan, and following consultation with Governors, Parents, Children and Teaching Staff.

Aims for Reception, KS1 and KS2 Computer Science, Information Technology and Digital Literacy

Primary Computing Scheme of Work
Inspire a lifelong love of play, design, code, and invention with technology.

Knowsley CLCs
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	Digital Literacy	Computer Science	Information Technology	Byte Size & Fun
Reception	**Technology & Me:** This unit helps children to make sense of and explore the technology around them. The children will get to experience a range of technology/ equipment, including digital cameras, iPads, video cameras, microscopes and sound recorders. **My Online Life:** This activity takes place over the course of the term. It meets the objectives as set out by UK Council for Internet Safety (UKCCIS) 'Education for a Connected World Framework'.	**Robots:** This unit gives children their first taste of computing (computational thinking and coding). The children will learn new skills and practice giving instructions to complete tasks. Includes a range of continuous provision activities.	**Animal Safari:** This unit helps children use iPads/tablets independently to collect and record information. The children will learn about opening apps, scanning QR codes, taking photos and recording information in a tally chart. Includes a range of continuous provision activities.	**Pretty Pictures:** In this unit children will learn how to take photos, record video and record audio. These are important skills that will enable them to document their own learning and ideas. **Beats & Rhythms:** The children will use simple sound recording apps and music creation apps to make their own musical loops. Bags of fun for little DJs. **Shape Hunt:** The children will use cameras or iPads to photograph shapes and colours from about the school and outdoor area.
Year 1	**Modern Tales:** Using the vehicle of the children's stories, the children will learn to navigate the rules of online safety and communication. The children will make animations based on an online situation they may encounter. **My Online Life:** This activity takes place over the course of the term. It meets the objectives as set out by UKCCIS 'Education for a Connected World Framework'.	**What is a Computer?:** In this unit children will learn about the different parts of a computer and iPad. They will learn new skills, tips and tricks. The children will be able to see the inner working of a computer and build their own. Includes a range of continuous provision activities.	**Mini-Beasts:** Children will use technology to classify minibeasts. In this activity the children will learn about gathering and presenting information. They will then make their own David Attenborough style nature documentary. Includes a range of continuous provision activities.	**Animate with Shapes:** Children will learn the basic skills of stop frame animation and produce a simple animated movie. **Drawing Maths:** This activity blends art and maths. The children will master an art app while exploring shape, numbers and problem solving.
Year 2	**Online Buddies:** This activity will explore what friendship means online. The children will learn about the do's and don'ts of communicating over the internet. **My Online Life:** This activity takes place over the course of the term. It meets the objectives as set out by UKCCIS 'Education for a Connected World Framework'.	**Code a Story:** The children will write a basic story with illustrations. They will then turn this into an animated story using visual coding. The activity will introduce new concepts such as conditional language, repeat loops and debugging.	**Story Land:** The children take the role of authors to write the sequel to popular children's stories. They then create illustrations for their story and record them self reading it in order to create an audiobook to publish online.	**Heads Up!:** The children play a computing focused game of charades and then create their own version. **Maths Madness:** The children take part in a maths scavenger hunt and then create their own version by creating QR codes and maths videos.

Primary Computing Scheme of Work

Inspire a lifelong love of play, design, code, and invention with technology.

	Digital Literacy	Computer Science	Information Technology	Byte Size & Fun
Year 3	**Online Detectives:** This activity is designed to support children in mastering the art of advanced internet searching. They will learn new tricks to improve their searches while they try to solve puzzles and challenges. **My Online Life:** This activity takes place over the course of the term. It meets the objectives as set out by UKCCIS 'Education for a Connected World Framework'.	**Dancing Robot:** The children will use some of Scratch Jr's more advanced coding blocks to create their own interactive dancing robot game. The children will learn the important skills of critical thinking, problem solving and debugging.	**Rainforests:** The children will explore rainforests through new Virtual Reality (VR) apps. They will also create their own interactive learning games for younger children to play.	**Keyboard Adventures:** In this activity the children will master the art of using a keyboard and short cuts with a series of fun activities. **T-Shirt Designer:** The children will become illustrators and design their own t-shirts.
Year 4	**Fake or Real?:** Fake news is a serious concern and in this activity children will learn how they can sort the truth from the lies. Making videos to show what they have found out. **My Online Life:** This activity takes place over the course of the term. It meets the objectives as set out by UKCCIS 'Education for a Connected World Framework'.	**Hour of Code:** The class will sign up for Hour of Code and work through various challenges. The class can also choose to take part in global coding events.	**Dinosaurs:** In this activity the children will make their own summer blockbuster. They will learn all about filming techniques and storytelling skills.	**Wizard School:** The children will undertake a series of creative challenges based around the Harry Potter books. **Minecraft Challenges:** Who is the best at building. The children take part in a series of maths/Minecraft challenges.
Year 5	**YouTuber:** Every child wants to be a "YouTuber". In this activity children will learn about want that means, the positives and negatives, safety tips and they will create their own video blog (vlog). **My Online Life:** This activity takes place over the course of the term. It meets the objectives as set out by UKCCIS 'Education for a Connected World Framework'.	**Girls v Boys: STEAM Challenges:** This activity will pit the girls against the boys in a series of creative STEM challenges. They will tackle code, maths, art, DT and lots of problem solving.	**Making AR Games:** In this activity the children will be introduced to the world of Augmented Reality (AR). They will then be set the task of designing and creating game that uses AR.	**Video Game Music Composer:** The children will learn about audio recording and will write and record their own songs. The class can can combine these into a class album. **News Reporter & Podcaster:** Children will produce their own podcasts to publish online.
Year 6	**Online Safety Dilemmas:** In this activity the children will become online safety ambassadors. They will be given modern day dilemmas. Dilemmas that children face everyday online and asked to produce a series of "what to do" videos to explain how to cope online. **My Online Life:** This activity takes place over the course of the term. It meets the objectives as set out by UKCCIS 'Education for a Connected World Framework'.	**VR Worlds:** The class will explore Virtual Reality (VR) and how it can be used in the classroom. The children will also build their own VR world.	**Crossy Roads:** The children will create their own version of the popular app Crossy Roads using visual coding.	**Maths: Solve IT Club:** Children will produce their own digital guide to being a maths genius. Making videos and animations showing how to solve various maths problems. This is an opportunity to connect with other schools. **Quiz Show Host:** The children will create quizzes using a variety of apps.

Attitudes and Skills

In an ever changing subject we seek to encourage children to develop the following skills:

- Enjoyment
- Motivation
- Computing enquiry
- Perseverance
- Resilience
- Curiosity
- Transferrable skills

Curriculum drivers

Through the Programme of Study we aim through computing to create opportunities to support our three curriculum drivers:

- Knowledge of the world
- Possibilities
- Emotional awareness

Cultural Capital

Teaching staff are encouraged to broaden the experience for the children through promotion of the outdoor curriculum, off-site visits, visitors into school and shared experiences with the wider school community, e.g. involvement with parents/carers.

The computing curriculum is delivered through stand alone sessions with a balance between direct teaching and child-led exploration. The sessions are currently delivered by specialists from Hi-impact and Knowsley City Learning Centres (CLC)

Planning

Long, medium and short term planning formats have been provided by Knowsley Council and meet National curriculum

requirements; teachers have added our own school enhancements e.g. curriculum drivers.

Teaching
Within key stage 1 and Key stage 2 three areas are covered.
- Computer Science
- Information Technology
- Digital Literacy.

Monitoring and Assessment
Assessment is conducted through Target Tracker and each child is assessed at working towards, achieved or mastered. Termly data from each year group will be collated and used to inform teachers' planning in order to close gaps in knowledge, skills and understanding. Curriculum work in Computing will be recorded in a floor book mainly using pictures. Teachers will complete a crib sheet which shows whether the child was absent, has not achieved the target, or mastered the target. It is assumed that every other child has achieved the target for that lesson. Floor books will then be used to monitor that the Programme of Study is being effectively taught and match the needs and abilities of the pupils. Monitoring and review takes place on a regular basis in accordance with the School Monitoring Cycle, the School Improvement Plan and the Creative Curriculum Action Plan.

Safety
It is important that children are taught the rule of safety in computing from a young age so that it becomes integral to their experiences online in school and at home. Teachers aim to teach this through the Digital Literacy area of study. Our school follows an eSafety/Online policy. Please refer to this for further information.

Equal Opportunities

Computing is planned to meet the varied needs of all learners regardless of their gender, background, and culture, physical or cognitive development. Learning objectives are set to meet these needs in line with our Special Needs policy. Our expectations do not limit pupil achievement and assessment does not involve cultural, social, linguistic or gender bias. We recognise that computing may strongly engage our gifted and talented children, and we aim to challenge and extend them.

Use of ICT

ICT is not a standalone subject it is used to support other curriculum areas.

It is important to recognise however that some aspects of traditional ICT are still required to be taught discretely and should not be forgotten:

- in KS1, children should be taught to: "use technology purposefully to create, organise, store, manipulate and retrieve digital content";
- in KS2, children should be taught to: "select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information".

Responsibilities and Roles

The Headteacher and Governing Body have overall responsibility for the Computing Curriculum, supported by the Curriculum Leads.

The Curriculum Leads are responsible for overseeing the delivery of the Computing Curriculum through:

- Staff CPD
- Monitoring long term planning to ensure curriculum coverage.
- Monitoring of subject in line with school procedures.
- Ensure progress is being.
- Regular reviews of the curriculum through staff and pupil questionnaires and open dialogue.
- Making changes where necessary.
- Formulating an action plan to move the school forward.
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All teaching staff are responsible for the planning and delivery of the curriculum on a day-to-day basis and for making cross-curricular links where appropriate. Staff make amendments to planning in order to optimise learning opportunities when they arise. Outside agencies teaching provide their own planning and method of evaluation to support teacher assessment.

Monitoring and Review

Monitoring and review takes place on a regular basis in accordance with the School Monitoring Cycle, the School Improvement Plan and the computing Action Plan.