

Beddington Infants' School

Policy for Computing

At Beddington Infants' School we develop our Computing skills so that we can be well rounded, effective communicators with digital literacy who have strong core skills for the modern, digital world. We intend to be full members of our diverse community.



with families, children leave Beddington Infants' School with these seven gifts.

<u>Intent</u>

The vision for our school is rooted in an understanding of, and respect for, the incredible capacity of every child.

With a focus on basic skills and strong academic achievement our curriculum has evolved to enable each child to engage at a high level and therefore to achieve his/her personal best. Our provision is inspired by the Italian *Reggio Emilia Approach*. It is an experiential provision for both children and adults.

'Tell me and I forget. Teach me and I remember. Involve me and I learn.' Benjamin Franklin

Children

- are respected as individuals with something valuable to say
- have a genuine input into the direction of their learning
- are empowered to engage fully with the learning process, to take personal responsibility and to develop skills for life
- are given a variety of opportunities to explore the world in which they live, indoors and outside, developing positive attitudes to all weathers
- are supported in developing positive relationships with children and adults across the school
- are given regular, meaningful opportunities to express themselves.

Our aims in teaching computing are that all children will:

• Enjoy using technological devices and develop confidence and satisfaction in their everyday learning.

- Develop their Computing skills as they progress through the school, and be able to handle information in different ways, including gathering it, organising it, storing it, and presenting it to others.
- Begin to take responsibility for their own learning and decide when it is appropriate to use technology in their work.
- Develop an understanding of the capabilities and limitations of the technology they use through exploration and adult-led learning.
- Become independent learners and transfer their skills and understanding to home learning.

Implementation

All classrooms are equipped with networked computers, interactive Smartboards and a class iPad and/or a camera. Classroom equipment is used, throughout the day, for whole class demonstrations as well as individual, paired or small group work, as appropriate. The main electronic devices (laptops, chrome books and iPads) are timetabled. Each Year group uses one set of devices per half term.

Early Years Foundation Stage

Children have open-ended opportunities to explore computing during independent learning. Structured, exploratory play occurs daily. Children have the opportunity to work collaboratively and individually, responding to modelling and inputs led by the class adults. Verbal feedback is a valuable way to take the children's thinking and learning further. Computing resources are available during continuous provision to enable our learners to explore a range of skills independently. There is a permanent Computing area in Reception, and devices are used in every classroom. These, with the devices used in Nursery, allow for a multitude of cross-curricular links.

Computing is most actively linked to the following areas of learning:

- communication and language
- understanding the world
- expressive arts and design.

Ongoing observations are made in these areas to record and assess the development of skills. Observations are recorded in children's individual learning journeys.

Key Stage One

Computing is taught weekly across KS1, with computing continually being used for independent learning. Children will develop their computing skills and knowledge through adult focus group learning and independent challenges across the learning environment. There are fixed Computing areas in both Year 1 and Year 2, which all children can access during independent learning time. The teaching of Computing interlinks with the year group topics where appropriate. The iPads and cameras are used by all staff and children to document independent learning.

Following the National Curriculum guidelines children learn about:

- Algorithms; how they are implemented as programs on digital devices, and that programs execute by following instructions.
- Creating and debugging simple programs.
- Using logical reasoning to predict the behaviour of simple programs.
- Using technology purposefully to create, organise, store, manipulate and retrieve digital content.
- Recognising common uses of information technology beyond school
- Using technology safely and respectfully, keeping personal information private; identifying where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

The emphasis in our teaching of Computing is on:

- The first-hand use of a range of technological devices, such as laptops, chromebooks and iPads.
- The ability for children to explore using the devices, realising its capabilities, and their own.
- Encouraging children to take control of their own learning.
- Children having the ability to access computing devices throughout their learning areas, building their confidence and skills.
- For the children to enjoy, work, support and learn together.
- Provide varied activities, across the curriculum, to consolidate and practise new ICT skills, which will also enhance learning in other subjects.

Planning in Computing is a process in which all teaching staff are involved.

- Long term plans/Curriculum Map
- Medium term plans
- Knowledge Organisers
- Weekly plans
- Plans are checked regularly by the Senior Leadership Team.

Children's progress in Computing is recorded through:

- Ongoing assessments, with a termly summative assessment.
- Photos/Videos
- Regular feedback.
- Pupil Voice.

Reporting to families occurs formally and informally through:

- Curriculum letters informing families of coverage.
- Sending learning home to be shared termly.
- Sharing Learning Sessions each half term.
- Open Evenings (3 per year).
- End of Year Reports.

Resources used include:

- Laptops, chromebooks, iPads
- Class SmartBoards and iPads/cameras for documenting learning
- BeeBots

- Cross-curricular learning programs such as 2Simple Software and Busy Things
- Teacher's resources and reference materials
- Interactive displays
- Families

Pupils with additional needs:

When planning computing activities, differentiation is considered so that all children can access the computing curriculum.

A range of teaching strategies will be employed catering to the children's needs. For example, a child may use visual instructions to access a program, or practical resources (stickers etc.) may be used to aid children with their typing skills.

Accelerated learners are given the opportunity to develop their skills into the area being taught. They will also be extended through different programs/activities that encourage the children to think more about coding, creating content or e-safety. Accelerated learners will be encouraged to work with increasing independence and taught the strategies with which to do so.

<u>Diversity</u>

We provide an inclusive computing curriculum, which is appropriate and accessible to the needs and abilities of all pupils in accordance with the School's Equal Opportunity Policy. We ensure that children of all backgrounds, capabilities and needs are able to access the computing devices and learning. We give them the knowledge to independently build their computing skills at their own pace.

- Computers are an everyday fact of life for the children in our schools. It is important, therefore, that all children, girls and boys, those with low attainments and those with high attainments, irrespective of ethnic and social background, feel comfortable with them.
- Computers can play an important role in language development, project work, problem solving and investigations. Therefore, it is important that we use computers as a resource, which becomes familiar to each and every child in the class.
- All pupils have the same entitlement to the ICT available in school.
- We have purchased a number of software packages to support the teaching of Numeracy and Literacy. These are graded to enable differentiation of tasks, thus extending or consolidating the learning as necessary.
- There is also provision for extending gifted pupils through the use of some Key Stage 2 materials.
- All machines have speakers, or headphones for use with Talking CD's, talking word processing and other software.
- Some software packages have the ability to speak what has been typed enabling those with visual impairment to hear what they have written.
- We also use different software packages to help children with speech and language difficulties, as well as children with English as an additional language.

• ICT can be used, when appropriate, to support children with their recording. For example, children with medical needs can use a school laptop or computer to complete or record some of their work.

Learning at Home and Computing support and enhance each other through:

- Researching a class topic at home e.g. Dinosaurs and the Great Fire of London.
- Listening to recorded stories with books.
- Recording onto tape at home. (Reading a favourite story aloud to practise expression and voices etc.)
- From Nursery to Year 2, the children have access to the Education City Learning at Home Module. This enables extra practise at home of materials used in school for Literacy, Numeracy and Science. While parents are informed and encouraged to take up the benefits available of this 'home learning', no child will ever be disadvantaged by the absence of ICT facilities at home and all ICT assignments will be achievable in school time using the school resources.
- From Nursery to Year 2, children have access to Bug Club books online. This is showing fidelity to the scheme of Bug Club. Children can access books appropriate to their reading/phonics level which they can read/have read to them and they can answer comprehension questions.

RESOURCES

- School printers.
- Laptops, to be used by staff and children.
- Chromebooks.
- Class iPads and general learning iPad.
- Networked machines in each classroom including the Nursery.
- Interactive smartboards in all classrooms.
- Speakers in all classrooms.
- Projector and laptop in the hall for parents' evenings and assemblies.
- CD player and speakers in the hall.
- Beebots and floor robot cars.
- Child-friendly camera tools.
- Digital and video recording camera in every year group.
- 'Real-life' equipment in role play areas e.g. phones.
- Stereos and headphones.
- Outdoor music system.
- Avervisions.
- Portable projector and screen.

STAFF DEVELOPMENT

All staff have access to the National College CPD materials. They are able to access the training videos/materials at any time to help consolidate their subject knowledge and confidence when teaching Computing.

The National Grid for Learning has had a huge impact upon the teaching and use of ICT within schools. It facilitates the access of information via libraries and other establishments across the globe, with up to date data on line 24 hours a day. It enables transfer of data by electronic means, affording staff (and pupils) the opportunity of sending and receiving e-mail as the norm. As part of Sutton we use their links with the London Grid for Learning (LGFL).

Other educational sites are made available for teachers to help with planning the curriculum and locating resources. Staff are competent in the use of Internet sites at home and school.

Impact

At the end of EYFS children should have achieved the following:

Understanding the World (past and present)

- Talk about the lives of the people around them, and how technology is present at home and at school.

- Know some similarities and differences between things in the past and now

By the End of Key Stage 1 children should:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

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