COMPUTING

How the subject is taught

The new Computing Curriculum 2014 has a greater focus on coding and e-safety. It ensures the children know about the workings of the internet and computer systems. E-safety is now embedded within the subject and taught in all year groups.

Computing has an increasingly significant impact on all aspects of modern living. We want our children to become aware of this both in and out of school. We aim to ensure that the children at Lammack receive a fully rounded education which takes into account of the importance of Computing in the wider world.

Computing at Lammack is taught in a cross curricular approach. This means the subject does not stand alone but is taught through other curriculum areas such as history, literacy, geography etc. There are different strands in Computing such as computer science, presenting information, finding information and communication, these all link perfectly to all the other curriculum subjects. At Lammack, we use the Cornerstones Curriculum to help us deliver a cross curricular approach as it supports our belief that children learn better when their interests and fascinations are allowed to flourish.

All children have access to computers, laptops, iPads and a range equipment and software that develops their skills at their own level and ability.

Foundation Stage

In the foundation stage Computing curriculum is taught through the specific area of Understanding the World (Technology). The children are taught in small groups and use their experience during role play situations. The foundation stage encourages the children to experience Computing through real life situations such as using household equipment (toy irons, microwaves, vacuum cleaners etc) as well as toys to explore the wider world (metal detectors). The children are encouraged to use cameras to record their activities. Children are encouraged to experiment both inside and outside using equipment e.g. walkie talkies and mobile phones.

By the end of foundation stage, children are expected to:
- recognise that a range of technology is used in places such as homes and schools,
- select and use technology for particular purposes.

Key Stage 1

In KS1 the children learn each area of Computing through a skills based teaching session which they then put into practise at a later date. The children are taught age and ability appropriate skills which are differentiated according to their needs. When the children have learnt these skills they are then able to use them effectively to demonstrate their skills and produce a piece of work independently across any of the curriculum areas. Each half term the children learn and revise aspects of safety to make sure they are aware of their importance of keeping safe when online.

Throughout KS1 pupils are taught to:
- understand what algorithms are
- create and de bug simple programs
- predict the behaviour of simple programs
- use technology to create, organise, store, manipulate and retrieve digital content
- recognise uses of information technology beyond school
- use technology safely and respectfully.

Key Stage 2

In KS2 the children develop their skills further to make them more capable in using Computing and being able to transfer skills across other pieces of software and hard ware. To extend their knowledge of other software, they often visit the CLC at Witton Park. Coding is a very important aspect of the new national curriculum and the children are able to use a wide variety of resources to develop their knowledge and understanding. Ranging from probots, to lego, to creating their own models to be run through the flowol software. Children use a wide variety of resources to make sure they are prepared for life in the wider world and moving onto secondary schools.

Throughout KS2 pupils are taught:
- use sequence, selection and repetition in programs; work with variables and various forms of input and output
- design, write and de bug programs to accomplish specific goals
- explain how simple algorithms work and detect possible errors in them
- understand the basics of a computer networks, including the internet
- use search technologies effectively
- design and create a range of programs, systems and content, which accomplish given goals.
- use technology safely and respectfully

How the subject is assessed

Ongoing assessments are used by teachers to identify each child's progress. The children assess themselves according to their capability. Skills are reviewed throughout the year using the Focus Education: The Learning Challenge Curriculum, ensuring the children are successful and have the required skills to move on in their work in the following year group.

Children who are more confident have the opportunity to enhance their understanding and application of computing skills with tasks designed specifically to challenge.

Computing capability will be assessed using these methods and will take place at the end of each focus. Pupils keep a portfolio of their work on the school network and can see the development of skills as they look through work from previous years.

Priorities for future development
- To develop the use of iPads effectively to fulfil the computing curriculum
- To develop computing outside the classroom
- To develop a user friendly website
- To embed the new curriculum further and develop an assessment procedure.