

## Computing - Mrs Sarah Lawson

*"We're changing the world with technology."* –Bill Gates

### How is the content chosen?

The core of computing is computer science, in which pupils are taught the principles of information and safe computation, how digital systems and devices work, and how to put this knowledge to use through programming.

At Newton Hall Infants' School we believe that children have an established desire and personal-importance on technology, before they even begin their education pathway. This desire encourages children to embed learning and make connections, which leads to a greater depth of understanding within the subject. The content is therefore chosen to relate to everyday technology and needs relevant in their own world. We do make effective links with key themes in other areas of the curriculum, reflect expectations in the National Curriculum programmes of study and Early Years Foundation Stage (EYFS) framework, to engage the children. With being part of a strong, local community, links may also be chosen based upon the needs, interests or local events which are taking place in the community.

### How do we ensure progression of knowledge and skills?

We are fortunate to have specialist teachers, who couple subject-specific knowledge, with passion for their subjects. We have communicated and worked collaboratively with outside subject-specialists to ensure what we offer excellent progression throughout our school. As a result we have worked together to make long term, medium term and detailed short term planning in place. This ensures sequenced and appropriate content for specific year groups, as well as a build-up of knowledge and skills throughout our school. Within these documents there are also opportunities for differentiation and adaptations, in order to meet the needs of all our children and personal cohorts to our school.

### How is the subject taught?

At Newton Hall Infants' School computing has a half-termly focus. These cover the three strands of Computing, twice every academic year;

- E-safety (Digital Literacy and the awareness of keeping ourselves safe online)
- Information Technology (organising and presenting information)
- Computer Science (Programming of devices)

This can be taught as a weekly session, or can be more beneficial to teach in a block to help practise and develop skills, access applications and embed learning and understanding. All topics covering different objectives taken from the National Curriculum, but building on previous knowledge and understanding of the three strands highlighted above.

In computing, the understanding of key phrases, terms and words allows pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology. Questioning is used to check their understanding and prior knowledge, before new concepts are introduced. Modelling is used by class teachers to clarify expectations and possibilities, children are then given plentiful opportunities to consolidate, build upon and apply basic skills in order to demonstrate what they have learnt.

### How is Computing taught in Early Years Foundation Stage (EYFS)?

As well as topic work and the teaching of valuable skills and knowledge, children in our Early Years Foundation Stage (EYFS) are given the opportunity to continually practise and embed their skills through the areas of provision set up in the indoor and outdoor learning environments. Children are able to demonstrate their independence in using the choice of technology on offer and are encouraged to choose the appropriate equipment for specific purposes. We aim to teach them about how to use a range of equipment safely, planning experiences beyond the EYFS Framework.

### How do we know children are making progress?

Ongoing assessments of the children's knowledge and skills are observed daily by the class teacher. Misconceptions are addressed and next steps carefully planned. Children's outcomes are compared to the subject specific skills and knowledge documents, as well as the year group expectations from the National Curriculum. Senior leaders and subject leaders gather an overview of children's learning and outcomes through monitoring activities. Regular assessments are collated for children in EYFS and Key Stage 1 which are used to plan appropriate next steps for their future learning, as well as provide an overview of learning within a subject area across the whole school.

### Impact of our computing teaching

At Newton Hall Infants' School we aim to enable our children to become safe, independent and creative users of technology so that they are prepared and active-participants in the future of the digital world we're part of.

*Beebots are like remote control cars. I love making them move.*



*My voice sounds like a robot!*

