Newbold School
Computing Curriculum

CURRICULUM (Intent)

At Newbold School we recognise that equipping children with a high-quality computing education will enable them to use computational thinking and creativity to understand and change the world. Computer science forms the backbone, in which children are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. In addition we aim to ensure children have full knowledge and understanding of Internet Safety and how to take care of themselves and others around them. Computing also ensures that children become digitally literate - able to use, and express themselves and develop their ideas through information and communication technology - as active participants in a digital world.

We follow the national curriculum for Computing at Newbold School using the Teach Computing scheme of work.

"*The units for key stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly. It also ensures that connections are made even if different teachers are teaching the units within a theme in consecutive years*." (Teach Computing; NCCE).

TEACHING (Implementation)

At Newbold School we have 20 Chromebooks available for class use, each child has their own login and password to ensure that data is protected (as well as Smoothwall - our School's filtering and monitoring system to keep children safe online). We also have a small set of BeeBots for use with younger children. All classes have SMART

boards. Internet access is wireless and available throughout the main building. The children have access to their chrome books not only in computing lessons but across the curriculum when they are used for example to carry out research, word process, display information and maths activities.

We use visual, practical and unplugged activities to support pupils learning experiences and as part of the dedicated Computing curriculum, children are taught how to:

- Log on, navigate and use technology
- Research and understand the importance of verifying news and the validity of websites
- Be safe online and understand what to do in e-safety situations
- Program and debug
- Plan, design and create
- Word process and create presentations
- Represent data using spreadsheets and graphing tools.
- Use audio, video and animation software.

Our computing curriculum is designed to be fully inclusive, ensuring that every pupil, including those with SEND or additional needs, can access, engage with and succeed in computing. Lessons are structured to provide appropriate challenge and support so that all children develop confidence and independence as digital learners, with teachers modelling new concepts using the interactive smartboard. More able learners will assist their peers and teachers will scaffolded groups and individuals with tasks so that every child sees themselves as able to succeed in the digital world.

E-safety is of utmost importance at Newbold School. Staff and students are regularly updated on the e-safety policies, which in turn is reviewed yearly by the e-safety managers. E-safety is encompassed within each unit of the Teach Computing framework linked directly to individual topics as needed; but in addition Digital Wellbeing forms a main strand of the PSHE curriculum where it is taught discretely. Children sign a home school agreement at the start of each school year to focus their thinking on safe and correct use of the IT technology they use. For more information relating to Computing and e-safety please go to our policies section of our website. Our school's filtering and monitoring system (Smoothwall) safeguards children. The safeguarding and IT staff receive weekly summary activity emails and instant email safeguarding alerts with details of any risky online access and high-risk events so our safeguarding team can immediately investigate and support.

ACHIEVEMENT (Impact):

Evidence of progression and achievement will be seen in examples of children's work in paper folders showing examples of planning and outcomes as well as examples saved online. In addition it will be evidenced in cross curricular activities.

At Newbold School the aim is for the children to:

- Speak enthusiastically about their understanding of Computing and know key vocabulary
- Be prepared for the digital world that we currently live in and the one that will shape their future.
- Have the knowledge, skills and enthusiasm to continue computing at secondary school and beyond, potentially pursuing careers in a world where fluency in computing is vital.
- Children will use the internet in a safe and appropriate manner.
- Children will be able to be critical thinkers about the digital world and will be able to share their knowledge of how to be a responsible user of technology through discussion when questioned.
- Children will be able to apply their skills and knowledge in other areas of learning, showing increasing independence in selecting and using digital tools appropriate to their needs.

With this approach we hope that all pupils make meaningful progress from their starting points and develop the confidence and digital literacy needed to thrive in an increasingly technological society.