

KnMPA Computing Policy 2020-21

At Knighton Mead Primary Academy, we aim for our children to become competent, responsible, confident and creative users of technology. We hope to prepare our pupils for the future workplace and as active participants in a digital world.

Purpose of Study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing is central to the curriculum and is integrated into all subjects. The core of computing is computer science, in which pupils 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. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world. E-Safety is an integral part of children’s education in today’s digital world and is embedded into their learning from EYFS through to Year 6, ensuring children know how to stay safe online.

Intent Statement

At Knighton Mead, we aim to develop children into competent, responsible and creative users of technology across a broad, relevant and enriched curriculum, preparing them for jobs of the future.

National Curriculum Aims

The National Curriculum for computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Are responsible, competent, confident and creative users of information and communication technology.

Enrichment

At Knighton Mead Primary Academy, we aim to provide high quality and purposeful enrichment opportunities for pupils to enhance their experiences and learning. In Computing we aim to do this through:

- Access to high quality ICT resources – iPads, laptops, interactive whiteboards and BeeBots.
- High quality staff training and continuing professional development (CPD) opportunities to enhance knowledge and skills
- Strong and consistent links with Police Community Support Officers
- Whole school events to raise the profile of internet awareness

Outcomes

EYFS:

Throughout EYFS, children should start to become familiar with computing in a range of contexts, including play. Children should develop an understanding for the use of information technology and use a range of technology to support their learning, including the use of an interactive whiteboard.

KS1:

- 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
- Use Microsoft Office and similar software to create things; such as, PowerPoint presentations, word processed work, excel spreadsheets and Photo Stories

KS2:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve programs by decomposing them into smaller parts
- Use sequence, selection and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- 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 accomplishes given goals, including collecting, analysing, evaluating and presenting data and information
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact
- Use Microsoft Office and similar software to create things such as; PowerPoint presentations, word processed work, excel spreadsheets and Photo Stories



Online Safety

Digital Literacy is a big part of the curriculum, with children learning how to use technology responsibly, respectfully and safely. We aim to keep children safe online and also when using mobile phones, games consoles and other forms of technology in school and at home. At Knighton Mead, we feel it is important to educate children on the benefits of technology as well as the risks and responsibilities that come with using technology. We aim to educate our children to make the right decisions and keep themselves safe online.

Digital literacy is embedded into every child's computing lessons as well as engaging with discussions when appropriate, focussing on topics such as cyberbullying, keeping information safe, identifying and reporting unacceptable behaviour and the impact technology has on our self-image and health and wellbeing. As a school, we partake in safer internet day, further raising awareness to children and parents of the importance of using internet safely.

We have developed strong links with Leicestershire police who deliver assemblies and class workshops to ensure children are being safe online at school and at home.