



Overview of Computing Intent and Implementation at Reepham Primary School

At Reepham Primary school we want our children to be safe, responsible, competent, confident and creative users of technology, both to enhance their learning and their lives. Technology is all around us and in every part of our lives both personal and professional. For our children to have the greatest opportunities in life they need to have the knowledge and skills to engage fully in a technological world.

The National Curriculum for Computing aims to ensure that all children:

- 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.

Initially, children learn about the concept of ownership, personal data and privacy. They learn how to keep safe online and what to do if they have concerns about content or contact on the internet. They are introduced to the idea of an algorithm and how to follow instructions to achieve an outcome.

Internet safety then builds on the children's knowledge of privacy and introduces the concept of responsibility. The children learn how to become a discerning user of information as well as reviewing what to do if they feel unsafe. Their knowledge of algorithms is deepened through debugging and prediction. They begin to use technology to represent collected data digitally.

Moving into KS2, children learn more about internet safety and how to recognise acceptable and unacceptable behaviour and how to critically consider their online friendships. They revisit what to do if they feel unsafe and how negative experiences online can impact on mental health. Children develop their critical use of online data, through learning about ranking and selection. Children build on their programming knowledge by designing, writing and debugging short programs that accomplish specific goals.

Moving into Yr4, Internet safety learning teaches responsible behaviour when collaborating online and the importance of respecting others, just as in face-to-face interactions. Children learn about computer networks, including the different hardware that forms them. Children's knowledge is strengthened through the use of variables and repetition, alongside revisiting prediction and debugging to create their own animations.

In upper KS2 children revisit the key principles of keeping safe online, including what to do if they feel unsafe. They learn about trolling and online bullying and the impact this can have on mental health. The children review their learning about computer networks and learn about how information is stored and shared online. Children learn about abstraction and begin to consider the audience of digital content through creating a solar system simulation.

Yr6 children learn more about how data is shared online and how this can be beneficial for users, they also learn about the risks of cyberstalking and identify theft and how to prevent this. This year they revisit search technologies and how to be a discerning user of information, reviewing ranking and learning about targeting. Through the Code Cracking project children deepen their understanding of debugging and learn about how technology changed the course of the Second World War.

We use the Barefoot Computing resources throughout our school to support high quality computing teaching.



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