

COMPUTING



Being the best we can be; committed to making a difference

EXPERIMENT. REFINE. LEARN. REPEAT

INTENT - Purpose of Study

Children need to be able to navigate, engage with, use and innovate the digital landscape that is part of everyday life. They should not only feel confident with using devices and software products, but should also have a clear understanding of how these things work and be able to make informed and safe decisions about how and when they wish to engage with them. Our computing program aims to foster curiosity, empower children to be creators, not just consumers and inspire innovation.

Implementation

Our planning is designed to provide a spiral development of understanding of skills and concepts as children progress through the school. Each session is designed to grab attention, support and empower children to succeed and provide opportunity for reflection and evaluation.

Children will be taught a range of skills, from basic computer use all the way through to programming and applying knowledge to create their own designs and solve problems. Due to the nature of this subject, work will be created, stored and assessed in a wide range of ways, including exercise books, digital videos/photographs, .stl 3D printed work and Google Classroom submissions of digital content.

Key vocabulary is important and given a high priority in computing lessons, the practical, interactive and creative nature of the work ensures learning is inspiring and memorable. Children are also able to access and refer back to previous learning via the Google Classroom.

Impact

Children will complete a knowledge Organiser for all units of work and create a final project for most units of work that can be assessed to gain insight into the impact of their learning.



| <p style="text-align: center;">Reception <i>(end point overview)</i></p> | <p style="text-align: center;">Key Stage 1 <i>(end point overview)</i></p> | <p style="text-align: center;">Key Stage 2 <i>(end point overview)</i></p> |
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| <ul style="list-style-type: none"> ● Increasingly follow rules, understanding why they are important. ● Match their developing physical skills to tasks and activities in the setting. ● Explore how things work. ● Show resilience and perseverance in the face of a challenge. ● Develop their small motor skills so that they can use a range of tools competently, safely and confidently. ● Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'. ● Explore, use and refine a variety of artistic effects to express their ideas and feelings. ● Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. ● Explain the reasons for rules, know right from wrong and try to behave accordingly. ● Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. | <ul style="list-style-type: none"> ● 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 | <ul style="list-style-type: none"> ● Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems 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 accomplish 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. |