The intent of our **Computing** curriculum at Lyncrest is that children will receive a quality education and leave primary school equipped with the skills, experience and knowledge in the following 3 key strands:

- Computer Science – Algorithms & Programming; Data; Systems.
- Information Technology – Digital artefacts; Computing Contexts.
- Digital Literacy – Children develop the mechanics; searching for and selecting information; Online safety.

Lyncrest's computing curriculum is designed to be broad and balanced to ensure that children are given a high-quality education that equips them with the skills and knowledge to use technology now and in the future. It is recognised that safeguarding learners and ensuring that they know how to use technology safely, respectfully (and in Key Stage 2 responsibly) is of paramount importance and these skills are embedded into every unit. Online safety is explicitly taught during PSHE lessons as well as through a range of whole school assemblies, internet safety day and sessions run for children, parents and governors by North Northamptonshire's Online Safety and Wellbeing Officer – Simon Aston.

At Lyncrest, we have purposefully chosen to use the Teach Computing Curriculum and are adapting resources to personalise teaching to suit the needs of our children. All lessons are deliberately sequenced to build upon prior knowledge and a progression of skills year upon year. Using this knowledge rich scheme allows teachers to focus on the subject knowledge, deliver correct terminology and pillars of progression.

Our curriculum fosters deep links with mathematics, science and design & technology enabling learners to develop transferable computational thinking skills. The long-term map details the order of units taught in each year group and there is provision for at least 36 hours of computing learning each year delivered by class teachers. We have intentionally resourced equipment (including physical external components such as crumble kits) to ensure that children are taught on a range of digital devices, programs and systems that progress with them throughout the school. The luxury of investing in our own equipment enables children to work both on their own and collaboratively in lessons.

As well as developing the 3 key strands of computing, our curriculum allows for the development of **oracy** through the use of subject specific vocabulary. It **presents possibilities** for further study and allows children to develop the skills needed to gain meaningful employment and contribute to our local **community and the wider world**. At Lyncrest we strive to maximise local opportunities linked to computing, computer science etc and welcome visitors into school where appropriate to showcase opportunities, careers and how the skills learnt in primary school can be used in future life.

Vocabulary is explicitly taught in each lesson. Children will have many opportunities to revisit vocabulary over time.

By the end of Key Stage 1 children will be able to use the following vocabulary . . .	By the end of Key Stage 2 children will be able to use the following vocabulary . . .
Algorithm, attribute, property, code, command, computer, data, debugging, information, information technology, object, program, run, technology	Browser, computer network, computer system, condition, condition-controlled loop, count-controlled loop, data set, decompose, digital device, domain name, execute, hardware, HTML (HyperText Markup Language). Hyperlink, infinite loop, input, input device, internet, loop, network, output, output device, procedure, process, repetition, router, selection, server, software, stored data, subroutine, switch, URL (Uniform Resource Locator), variable, web, web address, web browser, web page, website, WiFi, WAP (Wireless Access Point), WWW (World Wide Web)

By the end of their time at Lyncrest a year 6 child will be able to:

- Keep themselves safe online by using technology safely, respectfully and responsibly.
- Predict, Run, Investigate, Modify and Make (PRIMM) programs to complete tasks.
- Use sequence, selection and repetition in programs.
- Demonstrate resilience and work logically to predict and explain algorithms / programs
- Understand that there are rich opportunities for communication / collaboration available for all when using computer networks like the web.
- Effectively use search technologies and be able to discern / evaluate results based on how they are selected and their rank.
- Select, use and combine a variety of software on a range of devices.
- Leave us digitally literate and able to use computational thinking skills.

In order to support all children to achieve this, including those with Special Educational Needs, we will:

- Scaffolding
- Chunking tasks into smaller steps
- Modelling in smaller groups
- Checking in once the task has started
- Images/picture prompts
- Step by step guides
- Making use of digital leaders and experts in the classroom
- Identifying children who may struggle and offering extra provision.

Computing Long Term Plan	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
	Autumn		Spring		Summer	
Year 1	Computing systems and networks – Technology around us	Creating media – Digital painting	Creating media – Digital writing	Data and information – Grouping data	Programming A – Moving a robot	Programming B – Introduction to animation
Year 2	Computing systems and networks – IT around us	Creating media – Digital photography	Creating media – Making music	Data and information – Pictograms	Programming A – Robot algorithms	Programming B – An introduction to quizzes
Year 3	Computing systems and networks – Connecting computers	Creating media – Animation	Creating media – Desktop publishing	Data and information – Branching databases	Programming A – Sequence in music	Programming B – Events and actions
Year 4	Computing systems and networks – The Internet	Creating media – Audio editing	Creating media – Photo editing	Data and information – Data logging	Programming A – Repetition in shapes	Programming B – Repetition in games
Year 5	Computing systems and networks – Sharing information	Creating media – Vector drawing	Creating media – Video editing	Data and information – Flat-file databases	Programming A – Selection in physical computing	Programming B – Selection in quizzes
Year 6	Computing systems and networks – Communication	Creating media – 3D Modelling	Creating media – Web page creation	Data and information – Spreadsheets	Programming A – Variables in games	Programming B – Sensing