Gothic Mede Academy Computing Curriculum 2026-27

	Autumn	Spring	Summer
Nursery	Explore everyday technology and recognise familiar devices. Investigate buttons, switches, knobs and touchscreens. Explore toys and objects that respond to actions. Begin to recognise technology in the home and school environment.	Explore how different technological devices work. Understand cause and effect when using technological toys and devices. Use simple digital devices with adult support, e.g. cameras and tablets. Follow simple instructions when using technological toys.	Begin to select technology for a particular purpose. Use simple technology with increasing confidence and independence. Take photographs and explore simple digital creative activities. Begin to give simple instructions to make something happen.
Reception	Recognise different types of technology in everyday life Understand what different devices are used for. Develop confidence using a touchscreen, mouse and keyboard. Use digital devices to take photographs and record sounds. Understand that technology can help us communicate and find information.	Understand that technology follows instructions to perform actions. Explore simple programming toys such as Bee-Bots. Understand and use simple directional language: forwards, backwards, left and right. Explore simple sequences and begin to recognise that instructions need to be in the correct order. Identify and correct simple mistakes in a sequence of instructions with support.	Use technology purposefully and independently for a particular task. Plan and follow a simple sequence of instructions. Predict what might happen when instructions are given in a particular order. Create simple digital content, e.g. pictures, photographs and recordings. Choose appropriate technology to complete a task and explain their choices.
Year 1	Unit 1.1 Online Safety & Exploring Purple Mash (Programs – Various) Unit 1.2 Grouping & Sorting (Program – 2DIY) Unit 1.3 Pictograms Number (Program – 2Count)	Unit 1.4 Lego Builders (Program – 2DIY) Unit 1.5 Maze Explorers (Program – 2Go) Unit 1.6 Animated Story Books (Program – 2CreateAStory)	Unit 1.7 Coding (Program – 2Code) Unit 1.8 Spreadsheets (Program -2Calculate) Unit 1.9 Technology outside school (Programs – Various)
Year 2	Unit 2.1 Coding (Program – 2Code) Unit 2.2 Online Safety (Programs – Various) Unit 2.3 Spreadsheets (Program - 2Calculate)	Unit 2.4 Questioning (Programs – 2Question, 2Investigate) Unit 2.5 Effective Searching (Programs – Browsers)	Unit 2.6 Creating Pictures (Program 2PaintAPicture) Unit 2.7 Making Music (Program – 2Sequence) Unit 2.8 Presenting Ideas (Programs – Various)
Year 3	Unit 3.1 Coding (Program – 2Code) Unit 3.2 Online Safety (Programs – Various) Unit 3.3 Spreadsheets (Program – 2Calculate)	Unit 3.4 Touch Typing (Program 2Type) Unit 3.5 Email (including email safety) (Programs – 2Email, 2Connect, 2DIY) Unit 3.6 Branching Databases (Program – 2Question)	Unit 3.7 Simulations (Programs - 2Simulate, 2Publish) Unit 3.8 Graphing (Program – 2Graph) Unit 3.9 Presenting (with Google Slides)
Year 4	Unit 4.1 Coding (Program – 2Code) Unit 4.2 Online Safety (Programs – various) Unit 4.3 Spreadsheets (Program - 2Calculate)	Unit 4.4 Writing for Different Audiences (Programs – 2Email, 2Connect, 2DIY) Unit 4.5 Logo (Program – Logo) Unit 4.6 Animation (Program - 2Animate)	Unit 4.7 Effective Search (Programs – Browsers) Unit 4.8 Hardware Investigation Unit 4.9 Making Music (Program – Busy Beats)

For our computing curriculum, we follow the National Curriculum Programmes of Study. It is taught via *Purple Mash* and covers the above units.

National curriculum in England

Purpose of study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. 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.

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.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Subject content

Key stage 1

Pupils should be taught to:

- 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.

Key stage 2

Pupils should be taught to:

- 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.