Chase Bridge Subject Roadmaps

Our Curriculum

COMPUTING

Learning Areas
- Computer science
- Online safety
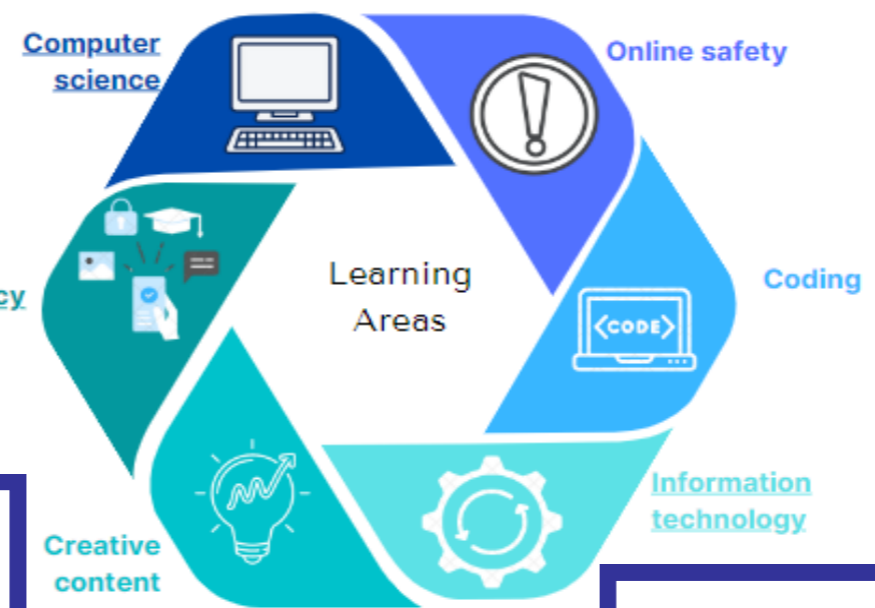- Coding
- Information technology
- Creative content
- Digital literacy

"Computing is not just a device; it is an extension of your mind and a gateway to other people."

- Mark Shuttleworth

EYFS

Hardware : Parts of a computer and how to look after equipment., Basic computer hygiene.

Safety and Privacy : How to recognise when you are not comfortable with something, The concept of a helping hand of people to get support from, How to say no to something, Keeping healthy; screen time, Being kind .

Using Technology: Clicking, navigating using the movement of the mouse and dragging and dropping.

Drawing skills : Choosing pens and style, composing drawn images on screen. The undo function.

YEAR 1

Children will learn about:

Digital Literacy
Online Safety and Technology : Understand 'Technology', record examples of technology outside school. use technology safely and respectfully, keeping information private; reporting tools, create and manage an avatar .

Information Technology
Spreadsheets and Sorting: Sort items using technology, explore spreadsheets, enter data, read data.

Computer Science
Lego Builders : Follow instructions, create simple algorithms, order instructions, debug instructions.
Animation : Animate a picture, add a sound effect, use copy and paste feature.

YEAR 2

Children will learn about:
Digital Literacy
Online Safety and Effective Searching
Using a search tool. share digital work, communicate and connect with others locally. sharing on the Internet.
Understand a digital footprint.

Information Technology
Creating Pictures : Describe shapes and patterns that create art, repeat patterns to make art, combine effects to make art.
Making Music: Create a sequence, change tempo, add sounds, change volume, upload a sound.

Computer Science:
Coding : Explain an algorithm, understand computing instructions, debug a program, recognise a block of code, predict what code will do, design a program that uses a button.

YEAR 3

Children will learn about:
Digital Literacy:
Online Safety: Safe passwords, communicating online, consider what is true online, learn about age restrictions, knowing how to report and where to go for help, caution with advertising online.
Email : open and respond to emails, use an address book, email safely, adding attachments.

Information Technology
Presenting : creating pages, adding media, adding animations, linking slides.
Branching Databases: Sort using YES/NO, collect data, present data, sort data.

Computer Science:
Coding : programming flowcharts, using timed commands, use a nested command, programme a maze.

YEAR 4

Children will learn about:

Digital Literacy:
Online Safety: online identify, identify theft, installing unsafe apps, malware awareness, positive and negatives of screen time, communication through gaming, Misuse of AI.

Information Technology
Making Music: To control rhythm, tempo and pitch, create melodic phrases, compose electronic music, to manipulate a loop.
Animation: Use stop motion photography, add a background, animate a scene, add media, share an animation.

Computer Science:
Coding and Logo : To use if statements, create nested commands, run procedures, debug a program, use variables, design a playable game.

YEAR 5

Children will learn about:

Digital Literacy:
Online Safety: Digital content sharing, maintain secure passwords, appropriate sharing, referencing sources, interacting responsibly. Misuse of AI.

Information Technology
Word Processing: Animation: understand and use word processing tools, add, edit and improve a document, using tables, enhancing presentation, writing for purpose.
3D Modelling: designing a model, moving points, refine and print a model, interacting with polygons.

Computer Science:
Coding and Game Creator : simplify code, functions in code, variables in code, coding strings, create a playable game, debug and test a playable game.

YEAR 6

Children will learn about:

Digital Literacy:
Online Safety: Risks of mobile broadcasting, secure sites, privacy, persistent online interactions, sharing data with companies, social media, cyber bullying, behaving responsibly online. Misuse of AI.

Information Technology
Blogging: Identifying purpose of a blog, designing, curating and updating a blog., responsible community interaction, commenting and feedback.
Spreadsheets: navigate excel, enter data, manipulate cells, introduce basic formulae, use spreadsheet in a model situation.,
Computer Science:
Coding and Binary: launch commands, flowchart testing, user , design a game with a score, recognise binary, represent binary.

INTENT

Children will be equipped to use computational thinking and creativity to understand and change the world. Computing first ensures **digital literacy** – being able to use, and express themselves and develop their ideas through, **information and communication technology** – at a level that begins to equip students for the future and as active participants in a digital world. The core of computing is **computer science**, which is the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.

IMPLEMENTATION

Securing a responsible relationship with technology children will then learn through a continuous curriculum which builds on the skills and understanding of previous years. Our digital literacy first approach ensures children have the fundamental computing skills to find, evaluate, utilise, share, and create using information technologies and the internet. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content.

IMPACT

By the end of each unit children will be able to demonstrate their understanding through purposeful use of the technology; this allows teacher assessment to take place. Each unit introduces new technologies and skill sets, layering on learning from previous lessons. Tasks develop technological users who are proficient in skills rather than programmes so that they can apply their knowledge to the wider world of technology and have an awareness of emerging technologies that will be present in their lives.