We are a community of learners

fostering and developing a life-long love of learning

Personalised curriculum

Enhancement and enrichment activities

Basic curriculum

Computing Curriculum

'Computers are incredibly fast, accurate and stupid; humans are incredibly slow, inaccurate and brilliant; together they are powerful beyond imagination'

Albert Einstein

The computing curriculum; Intent

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.
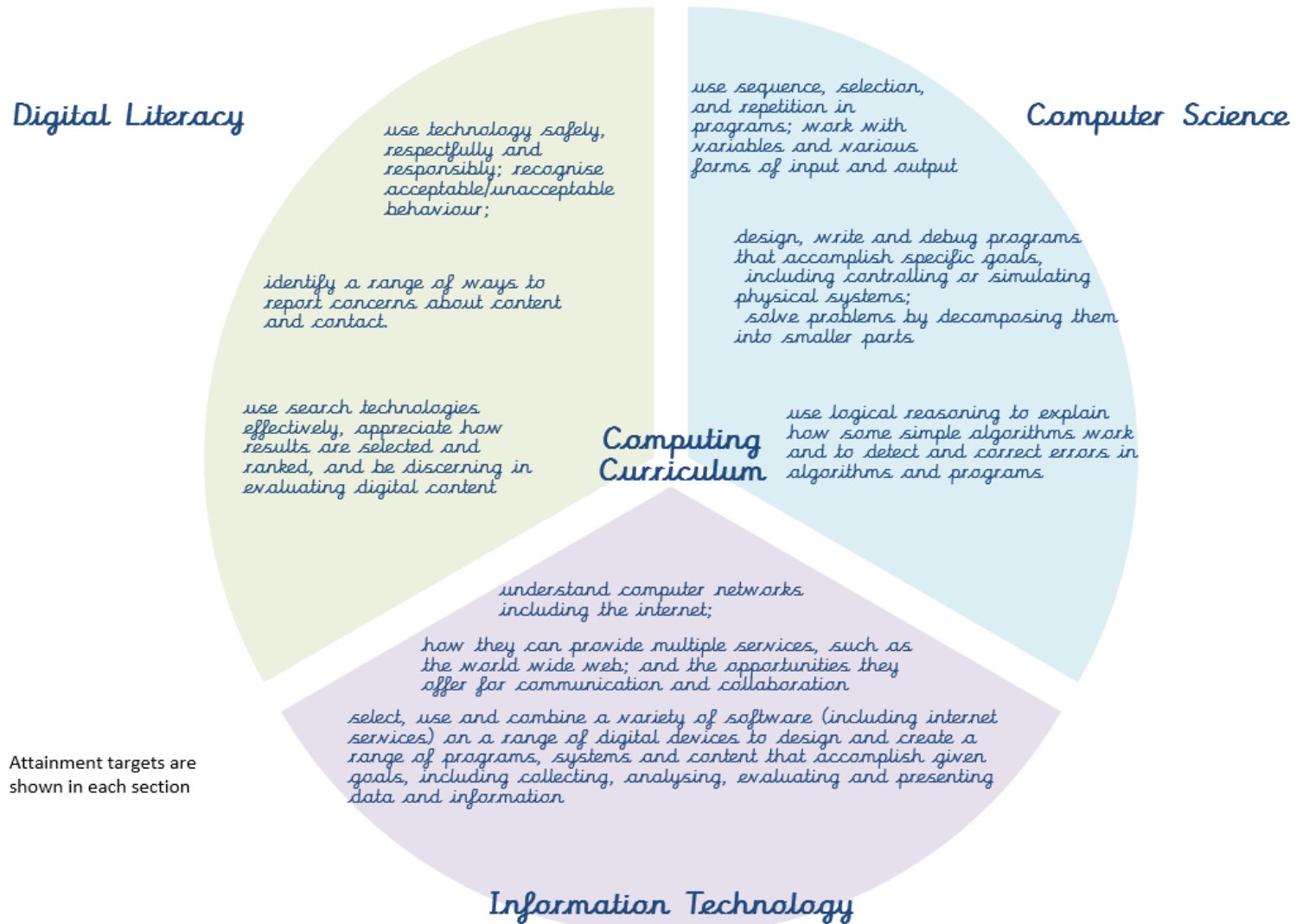
The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.

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.

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.

Implementation

Digital Literacy

use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour;

identify a range of ways to report concerns about content and contact.

use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Computer Science

use sequence, selection, and repetition in programs; work with variables and various forms of input and output

design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

Computing Curriculum

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

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

Attainment targets are shown in each section

Information Technology

Impact

We want every child to leave Nascot Wood Junior School...

- with the skills needed to ensure that they have an appropriate digital presence, keeping safe online
- with the knowledge and skills to self-regulate their own online activity
- with the knowledge and skills to manage in an increasingly digital world, enabling them to compete in the job market