

## Computer Science Curriculum

### Statement of Intent

Computing at Nishkam High School provides students with an *ambitious curriculum* which is engaging, creative and innovative. Computing has deep links with mathematics, science, design and technology, and provides insights into both natural and artificial systems, with this in mind the curriculum design is sequenced through key stage 3. We revisit core computing concepts throughout the three-year curriculum plan for example:

- Year 7s are introduced to cybersecurity; learning basic concepts within this field and addressing misconceptions.
- Year 8 cybersecurity we build up the knowledge and start understanding technical and different methods of 'hacking' and how to protect computer systems against threats.
- Year 9 applying previous knowledge and understanding to advanced methods of hacking and malicious intent, specifically looking at industry, organisations and the world.

Ultimately ensuring *cumulatively sufficient knowledge and skills for future learning and employment* curriculum.

To support students to strive for excellence in their learning, we *prioritise reading allowing pupils to access the full curriculum* with a particular focus on distinguishing the differences between fake and real news. The curriculum has an emphasis on students accessing multiple sources when researching and reading about topics.

Incorporating the *Faith-Inspired, Virtues-Led* approach to learning students have the opportunity to reflect on how technology is fast changing our world and the impact it has on our society and how we use technology responsibly and safely. The inclusivity of the curriculum allows students from all backgrounds; from *SEND to Disadvantaged* to grasp the fundamentals of computing from being taught the principles of information and computation thinking to designing and creating artefacts using the 3D printers.

As a school of excellence, the Computing *curriculum is enriched* by providing students with opportunities to take part in national-level competitions, *trips, visits and experiences* related to technology and industry, as a subject we firmly believe in providing students with opportunities where they can see their classroom learning in action with industry specialists.