

## Key Stage 3 Computer Science Overview

### Autumn Term 1

***Computer science needs to be part of the core curriculum - like algebra, biology, physics, or chemistry. We need all schools to teach it, not just 10%.***

- **Brad Feld**

#### **KS3 Computer Science**

Computer programmes directly affect every aspect of our lives; Computer scientists theorise, design, develop and apply the software and hardware for the programmes most of us use every single day. As the digital world is rapidly evolving, the need for computer scientists continues to grow.

At Noel-Baker Academy, we want to be part of educating the next generation of computing professionals and the Key Stage 3 curriculum is a three year programme to build the foundations based on the National Curriculum entitlement.

As this is the first year of the curriculum, all year groups in Key Stage 3 will be using the same resources. The materials will be taught by the Mathematics and Computer Science faculty and will comprise 4 lessons a half term throughout the three years. Pupils will have access to a bank of recently purchased laptops for all of their lessons. Throughout the curriculum, they will also regularly engage with E-Safety issues to ensure pupils are fully aware of how operate safely online.

#### **Block 1 – An introduction to Computer Systems**

The first block starts with an overview of E-Safety to ensure pupils are clear about the principles of operating safely online. Pupils will look at a short history of Computing, the basic makeup of computers and how and when they are used. Pupils will then explore the basics of how computers are organised and spend some time reflecting on email etiquette and how to use email well.

#### **Block 2 – Data Representation**

Pupils will then explore the fundamentals of how spreadsheets work before embarking on a database project that will explore their own use of and attitudes towards computers. This data will then be used to demonstrate how a basic database works and how data can be usefully sorted and filtered.