# Computing Learning Journey
## EYFS – Y13

Start an apprenticeship

Go to University

**YEAR 13**

Unit 1 Sum Exam

REVISION

Assess Unit 6 BC

Unit 1 Jan Exam

Unit 2 Jan Exam

REVISION

**Unit 1 IT Systems**
Impact of IT systems and issues

**Unit 1 IT Systems**
Operating online and protecting data and information

**Unit 6 Website Development**
Principles of website development

**Unit 6 Website Development**
Design and develop a website

**Unit 1 IT Systems**
Digital devices in IT systems and transmitting data

Assess Unit 6 A

**Unit 2 Creating System to Manage Information**
Standard methods and techniques to design relational database solutions

Unit 2 Sum Exam

Assess Unit 3 BC

**Unit 3 Using Social Media in Business**
Develop and implement a social media plan for a business

**Unit 3 Using Social Media in Business**
Exploring the impact of social media

**Unit 2 Creating System to Manage Information**
Evaluating a database development project

**YEAR 12**

Assess Unit 3 A

**Unit 2 Creating System to Manage Information**
The purpose and structure of relational database management systems

**Unit 2 Creating System to Manage Information**
Creating a relational database structure

**1.6 Ethical, Legal and Cultural Concerns**
What are the issues created and addressed by technology? How does technology impact on key stakeholders?

REVISION

Testing

REVISION

Testing

Paper 1 & 2 Sum Exams

**1.5 System Software**
What are operating systems? What is utility software?

**1.4 System Security**
What forms of attack happen to computers and networks. How to prevent attacks.

**1.2 Data Representation**
How do computers represent data? Convert between denary, binary & hex. Add binary numbers. Character sets and why they are used.

**YEAR 11**

**2.5 Translators and IDEs**
What is the purpose of a translator? What are the characteristics of compilers, interpreters and assemblers? Tools in an IDE.

**2.4 Computational Logic**
Creating simple logic diagrams. Creating truth tables.

PAPER 1

**1.3 Network Topology, Protocol and Layers**
What are LANS & WANs? What factors affect the performance of networks
What are the properties of star and mesh topologies. Why and for what purposes are protocols used?

**1.2 Memory & Storage**
What is the purpose of RAM and ROM? What are the differences between RAM and ROM? Why do we need secondary storage? What are optical, magnetic and solid state storage? How is each suitable for different purposes?

**1.1 Systems Architecture**
What is the CPU? How does it function? What are the components it is made of? What are the common characteristics which affect performance? What are embedded systems?

**Computer Science**
What is the CPU?
What is the difference between hardware and software?

**2.2 Programming Techniques**
Using python to program using Sequence, selection, iteration, arrays, files and functions

**2.3 Producing Robust Programs**
Understanding why defensive programming is necessary. Creating code which is easy to maintain. The purpose of testing

**YEAR 10**

PAPER 2

**Data Modelling II**
How can you search, manipulate and interrogate data using a database

**Website Development**
Using Dreamweaver, Photoshop and fireworks to create an interactive website

**Digital literacy IV**
What are the different IT skills which are transferable to other subjects, how do I present work professionally?

**2.1 Algorithms**
Reading and writing Algorithms
Correcting and Completing
Searching and Sorting

**2.2 Programming Techniques**
Using SQL to search for data. Using arrays to store data

**YEAR 9**

**Digital Graphics II**
Using Photoshop to manipulate images and produce a professional looking magazine.

**Enterprise**
Create a marketing plan for a hat business

**Digital literacy II**
What is your digital footprint? Why is it important to think about what you are posting online

**YEAR 8**

**Digital literacy III**
What are the different legislations and how can they protect you and your data

**Programming II**
What is an algorithm and why are they important? How do you program using selection in python?

**Data Modelling I**
How to use a spreadsheet, how to create graphs, how to create simple formula

**Digital Graphics I**
Using fireworks to design and create a cereal box.

**Programming I**
Using python turtle to program shapes

**Digital Literacy – Retrieve Content**
Create a quiz, fact file, and PowerPoint presentation

**Digital Literacy**
E-safety, touch typing, emails, networks and word processing

**Data Modelling**
Spreadsheets, use graphs, simulations, and databases

**KS2**

**YEAR 7**

**Digital Graphics - 2Paint**
Use effects and repeat patterns to create a picture using 2Paint.

**System Architecture I**
Input and output devices. How the CPU works

**Digital literacy I**
Passwords, searching for reliable information. Using basic Microsoft office applications

**Data Modelling - Spreadsheets**
Use a spreadsheet to add amounts and create a graph

**Digital Literacy - Emails**
Keeping information safe. Open and send and email

**Coding**
Test, debug, repeat commands, use variables and loops.

**Interactive Multimedia Products**
Create animations, use sounds, create blogs.

**Representing Data**
Explore, edit, combine and record sounds

**Representing Data**
Represent data using images and pictograms.

**Algorithms**
Create, test and debug.

**YEAR 2**

**YEAR 1**

**EYFS**

**Digital Literacy - Searching**
Safe searching information and produce leaflet to explain.

**Algorithms**
Create, repeat, add timer, test and debug.

**Coding**
Move objects and create commands.

**Digital Literacy – Exploring**
Logging on to computers.

**Digital Literacy – Familiarise**
Play ICT games Take pictures on iPads using props.