



Intent

The year 7 curriculum aims to give students the knowledge and skills to be able to use the IT facilities available to learn. They will learn the fundamentals of programming and spreadsheets in an accessible and engaging way, building resilience and being able to solve problems. They will build upon the internet safety work from Key Stage 2 and learn how to protect their accounts and devices.

Computing

Threshold Concepts

- Accessing resources from different locations and being able to share their work with the teacher and others.
- In programming, understand sequence, selection and iteration.
- Never calculate something manually when using a spreadsheet. Keep variables and formulas separate.

Year 7

Digital Literacy (Sep to Nov)

Programming (Nov to Feb)

Spreadsheets (Feb to Apr)

Cybersecurity (May to July)

Knowledge
(facts, information, concepts and key terminology)

- Features of a secure password.
- Understand how files are organised in a hierarchical structure and how to manage files: using and create hierarchical structures and using naming conventions.
- Understand that there are different levels of access (read/write).

- Instructions are in order (sequence)
- Programs can follow different paths (selection)
- Instructions can be repeated (iteration)

- Data values should be atomic in a spreadsheet.
- Formulas should be used for any calculation.
- Basic operators used in formulas (/, *, -, +)
- BODMAS applies in formulas.

- Definitions of:
- Social engineering and techniques: phishing, blagging and shouldering.
 - Malware and categories: virus, trojan and worm.
 - Good practice when creating presentations.
 - Select a strong password.

Understanding
(ability to connect and synthesise knowledge within a context)

- Create appropriate digital artefacts that can be imported into other files.

- Combine different instructions to form a program.

- Organising data for processing.

- Give advice about protecting accounts and avoiding malware.

Skills
(successful application of knowledge and understanding to a specific task)

- Accessing work from common places: Teams and shared area.
- Sharing work by saving in suitable locations and granting access to it.
- Create a word-processed document, applying text formatting features.
- Create a presentation applying good design principles.
- Be able to communicate using the school email

- Write programs with some support containing sequence, selection and iteration.

- Complete spreadsheet templates by adding in formulas.
- Manipulating variables and reading the results of the formulas.
- Creating suitable charts from data.

- Create a presentation using good practice: consistent and professional appearance, balance of text and graphics, concise text.
- Write a phishing email.

Formal Assessments
(those done by all/vast majority of the cohort)

N/a

Multiple-choice test at the end of the unit.

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By the end of the year students on course for at least a grade 5 will...

- Write programs with some support using variables, sequence, selection and iteration.

- Be able to describe techniques used to hack into accounts and devices and how to prevent this from happening.
- Apply simple formulas on a spreadsheet.