

# Year 8 Computing curriculum summary

In computing we cover 4 main golden threads. All lessons fall into one of these themes, the first 3 of which are also offered as dedicated qualifications in key stage 4. (Computer science, Imedia and ICT)

**Computer Science** – Helps you learn how computers think and how to write your own code. You'll solve puzzles, create games, and understand how technology works behind the scenes.

**Media** – Lets you be creative by designing things like posters, animations, and videos. You'll learn how to plan your ideas and think about who will use or watch them.

**ICT** – Teaches you how to use computers to get work done. You'll learn how to make documents, presentations, and charts—skills that help in school and real life.

**Online Safety** –Shows you how to stay safe and kind when using the internet. You'll learn how to protect your information, what to do if something feels wrong, and how to be a good digital citizen.

**Below are the topics that we cover in year 7. Please note as we interleave some aspects of our curriculum the Algorithms and online safety lessons are spread out throughout the year**

<b>Topic</b>	<b>Overview</b>	<b>Number of lessons</b>
Reinduction to computing	A reinduction lessons, allowing students to remember core expectations in computing lessons	1
Introduction to networks	A brief introduction to how computers communicate with each other. Students will discover how the internet functions and what pieces of hardware are used to keep networks working.	2
Binary and storing data	Students will learn how to convert binary and decimal numbers. They will also see that everything on computers is stored in binary, and will find out how data is stored using 1's and 0's	4
Digital graphics and Photopea	Students will learn how to create digital graphics using online tools that are accessible at home. They will learn how to	4

	create, modify and export photos and digital graphics in an effective and creative way.	
Introduction to cyber security	This unit takes students on an eye-opening journey of discovery about techniques used by cybercriminals to steal data, disrupt systems, and infiltrate networks. Students will start by considering the value of their data to organisations and what they might use it for. They will then look at social engineering techniques used by cybercriminals to try to trick users into giving away their personal data. The unit will look at the more common cybercrimes such as hacking, DDoS attacks, and malware, as well as looking at methods to protect ourselves and our networks against these attacks.	4
Creating an interactive product	Students will end the year off looking at a variety of digital graphic software packages in order to create a digital product like a real-life digital artist would in industry.  Students will demonstrate skills relating to the creation of digital media such as searching, combining, editing, saving and presenting.	5
Online safety	We spread our online safety lessons throughout the year. In the lessons we cover the following core content <ul style="list-style-type: none"> <li>• Social media and self image</li> <li>• Online extortion and catfishing</li> <li>• Appropriate online content</li> <li>• <a href="#">Watch 'the social dilemma'</a></li> </ul>	5
Algorithms and python	We spread our algorithms and python lessons throughout the year. In the lessons we cover the following core content <ul style="list-style-type: none"> <li>• Python inputs and outputs</li> <li>• Arithmetic in python</li> <li>• Basic selection statements</li> </ul>	7

## Homework

In year 8 students receive a 40 point multiple choice/short answer quiz. These quizzes are cumulative and will ask questions on a number of previous topics. They are posted on google classroom every fortnight.

## Assessment

In year 8 we complete 2 assessments. The first is **just before Christmas** and the second **just before the May half term holiday**.

Assessments in computing are cumulative. Meaning we will always assess all content that has previously been delivered.

Assessments include an online multiple choice quiz, and a short written paper to assess more in depth learning.