



**Overview:**

In year 8, you will learn a variety of skills, both in Computer Science and ICT, that will aid you throughout your time at Headlands and after your school career. We will be looking at how to think computationally, and applying those skills to creating algorithms, flowcharts and also pieces of computer codes, using Python. Not only this, but we look at using data, mobile app development as well as creating a website using HTML.

See below for more details

# Year 8

# Computer Science

**Term 3:**

**Data Representation**

You will learn how:

- Images, sound and text are represented on computers
- Images are compressed
- Sound sampling works

**HTML**

- Website creating using HTML

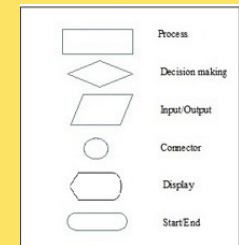


**Term 1:**

**Computational thinking and flowcharts**

You will learn how to:

- Decompose, abstract and thinking algorithmically
- Test and debug algorithms
- Compose flowcharts



**Algorithms and pseudocode**

- Use searching and sorting algorithms

**Term 2:**

**Programming with Python**

You will learn how to:

- Use the key programming constructs in Python to create code
- Use IF, WHILE and FOR statements
- Construct loops

**Data Science**

- Interpret data
- Use data to understand trends
- Evaluate outcomes

