

# Year 8 Computing and Digital Skills Learning Journey

Year 8

## Animation

Explore the Various Types of Animation  
Recognise that animation is created by filming in frames, which generates the illusion of movement.

Develop a storyboard for your animation concept  
Produce a frame-by-frame animation using Pixel Art

## Under the hood

Exploring the fundamental elements that make up a computer system.

Investigating environmental issues related to computers.

## Data Science

Modelling data using spreadsheets  
Using formulas and functions in spreadsheet software.

Data Visualisation  
Interactive slideshow design and photoshop banner

## Mars Project

Explore NASA's Mars Mission  
Learn about the various rover robots operating on Mars  
Examine the technologies employed by these rovers  
Create a concept for a robotic insect capable of surviving on Mars

## Physical Computing & Micro:Bits

Programming a virtual pet on the micro:bit

## Python Programming

Developing Algorithms for Computational Problem-Solving  
You will discover how to create a series of instructions, implement IF selections, and utilise loop commands effectively.

## HTML Developing for the web

Creating webpages with HTML and CSS.

## Codebreaking

Investigate how computers were used in WW2 for codebreaking and why their invention was so critical.  
Investigate the history of codes and ciphers.  
Learn how to decipher the Caesar cipher.  
Investigate a range of different ciphers and develop your codebreaking skills.  
Investigate how encryption is used to protect sensitive data on the Internet

