

Sytchampton Art and Design Computing Pathway

Secondary School

Programming A
Variables in Games – exploring variables when designing and coding a game

Programming B
Sensing – Designing and coding a project that captures inputs from a physical device

Creating Media

Vector drawing – creating images in a drawing program by using layers and groups of objects

3D Modelling – planning, developing and evaluating 3D computer models of physical objects

Data and Information

Flat-file databases Using a database to order data and create charts to answer questions

Introduction to Spreadsheets – answering questions by using spreadsheets to organise and calculate data

UKS2
B

Programming A
Selection in physical computing – exploring conditions and selection using a programmable microcontroller

Programming B
Selection in quizzes – exploring selection in programming to design and code an interactive quiz

Create Media

Video editing – planning, capturing, and editing video to produce a short film

Webpage Creation – Designing and creating webpages giving consideration to copyright, aesthetics and navigation

Computing Systems and Networks

Sharing information – identifying and exploring how information is shared between digital systems

Internet Communication – Recognising how the WWW can be used to communicate and be searched to find information

UKS2
A

Programming A
Repetition in Shapes – using a text-based programming language to explore count-controlled loops when drawing shapes

Programming B
Repetition in games – using a block based programming language to explore count-controlled and infinite loops when creating a game

Creating Media

Desktop Publishing – Creating documents by modifying text, images and page layouts for a specified purpose

Photo Editing – Manipulating digital images and reflecting on the impact of changes and whether the required purpose is fulfilled

Data and Information

Building and using branching databases to group objects using yes/no questions.

Data Logging
Recognising how and why data is collected over time, before using data loggers to carry out an investigation

Creating Media

Stop-Frame Animation – Capturing and Editing digital still images to produce a stop-frame animation that tells a story

Audio Editing – Capturing and Editing Audio to produce a podcast, ensuring copyright is considered

Programming A
Sequencing Sounds - Creating sequences in a block-based programming language to make music

Programming B
Events and Actions in programs - Writing algorithms and programs that use a range of events to trigger sequences

LKS2
B

Computing Systems and Networks

Connecting Computers – Identifying that digital devices have inputs/outputs and how devices can be connected to make networks

The Internet – Recognising the internet as a network of networks including the WWW, and why should evaluate online content

Programming A
Robot Algorithms – Creating and debugging programs and using logical reasoning to make predictions

Programming B
Programming Quizzes – Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz

Creating Media

Digital Writing – Using a computer to create and format text, before comparing to writing non-digitally

Making Music – Using a computer as a tool to explore rhythms and melodies, before creating a musical composition

LKS2
A

Programming A
Moving a Robot – writing short algorithms and programs for floor robots and predicting outcomes

Programming B
Designing and programming the movement of a character on screen to tell stories

Data and Information

Grouping Data – Exploring object labels, then using them to sort and group objects by properties

Pictograms – Collecting Data in tally charts and using attributes to organise and present data on a computer

KS1
B

Creating Media

Digital Painting

Digital Photography

Understanding the world

- 3 to 4 - Explore how things work

Personal Social Emotional

- 3 to 4 - Remember rules without needing an adult to remind them.
- R - Show resilience and perseverance in the face of a challenge.
- R - Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of 'screen time'
- ELG – Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.

KS1
A

Computing Systems and Networks

Technology Around Us

Recognising Technology in School and using it responsibly

Identifying IT and how its responsible use improves our world in school and beyond

Expressive Arts and Design

- R - Explore, use and refine a variety of artistic effects to express their ideas and feelings
- ELG - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture form and function.

Physical Development

- 3 to 4 - Match their developing physical skills to task and activities in the setting
- R - Develop their small motor skills so that they can use a range of tools completely, safely and confidently.

EYFS