

Year 7 Computer Science

Curriculum Manager: Mr S Howe / Mr J Moore (KS3 – Co-ordinator)

Teaching Staff: Mr J Moore, Mr D Burgess and Ms S Rashid

Curriculum Overview: Pupils will complete a range of interleaving ICT and Computing topics throughout Year 7, which includes a wide range of skills in preparation for their KS4 studies. All units are delivered and assessed via Google Classroom, which pupils have access to through their Ashton computer login. An overview of the Year 7 units of study can be found below.

Digital Gaming – Topic 1

The aim of this practical unit is to develop and practise the skills that students need to create an effective digital interactive game following a specific brief.

Pupils will gain experience with:

- Using design tools to plan the structure, navigation and content of a digital game
- Using graphic packages to create backgrounds, characters and objects
- Producing a game which uses a range of different interactive media (text, sound, moving images, animations)
- Building their game engine
- Testing the functionality and usability for their game
- Evaluating their work

Practical Programming: - Topic 2

The aim of this practical unit, is for pupils to get to grips with coding, using practical programming languages (python) to develop their skills in software development

Pupils will gain experience with:

- Syntax
- Variables
- For loops
- While loops
- Lists
- IF statements
- Program development
- Testing/feedback
- Evaluation/Improvement of outcomes

Computer Systems – Topic 3

The aim of this theory-based unit is to educate pupils on the different types of computer systems they may interact with in the digital world. They will focus on the key concepts of how these devices communicate and store information.

Pupils will gain experience with:

- History of digital devices
- Types of computers
- Hardware
- Software
- Memory and storage
- Input/outputs
- Processing

Assessments:

Practical Exam at the end of topic 3

A range of assessment windows take place during each unit in line with The Dean Trust assessment policy threshold concepts. These include Self, Peer, Formative and Summative assessments.

Homework:

Pupils complete their homework using 'Show My Homework' or Google Classroom. All homework will be set using these systems and pupils can access it at home with their appropriate log in details.

Other Useful Information:

Useful web links: www.classroom.google.com, www.bbc.co.uk/education, www.codecademy.com , www.code.org, www.codecombat.com