Shrewsbury Academy

ICT

For all learners to realise their dreams and become the best version of themselves.

As a faculty we are committed to providing all our students with experiences in digital technologies that will allow them to develop a set of broad transferrable skills, which will enable them to participate fully in modern 21st century society and economy.

# KS3 ICT

**Digital learners Skills**
- To understand the difference between Hardware /software
- How to use Boolean operators
- Why our Digital footprint is important
- To use and create Pseudocode
- To understand and write Algorithms.

**Animation skills**
- How to use Serif draw to create precise drawings
- To use key frame animation
- To import drawing into key frame animation
- To use the Cloning tool to create a series of frames
- To use key frame to create an animation.

**E safety Skills**
- To create a Folder structure
- To understand Security measures and set strong passwords
- How to stay safe online
- To identify Emails/scams
- How to protect files/computer against Cyber attack
- To understand why we use Antivirus/firewalls to stop unauthorised access to our computers

**Power point Skills**
- How to create a master slide
- Suitability for Audience
- Import images
- Add transitions and animations to enhance user interaction
- Choose and insert a suitable sound.
- Evaluate presentation

**Power Point**

**E safety**

**Digital learners**

**Serif draw and key frame animation**

**Scratch skills**
- To confidently use the Scratch interface
- Use the tools within scratch to create a sprite
- Create stories and games involving: Movement and sound
- To use Variables to store data and numbers.
- To add Sound to a game or animation

**Excel skills**
- To identify different areas of a spreadsheet: cell, column and row
- To enter data into a cell.
- Sorting cell data.
- Duplicating cell content or filling a series
- Use the formatting tools within excel.
- To use Formula to make simple calculations.
- To use functions to create complex calculations.
- To use charts and graphs to provide a visual representation of data that is easier to understand

Year 7

Year 8

Scheme of Learning YEAR OVERVIEW

## The Big Picture

Year Group 7

Students will be introduced to Information Communication Technology they will develop an understanding and knowledge of how computers work the different types of hardware and different software applications, how databases work, animation and programming skills using visual programming software.

## Intent:

The Units that will be covered are PowerPoint, E Safety , Digital leaners, Computational thinking, Programming, Publisher, Animation and Graphics

**Skills**: students will be introduced to the importance of file structures, they will develop a knowledge and understanding of how computers work, exploring hardware, software and computer components. Students will develop an understanding of programming using visual based programming software and will work through a range of activities developing their own program based on their knowledge and understanding. They will build a functioning database using a range of software tools. Students will sort and search information stored using filters. Students will use animation software to create a project-based assessment as well as using graphic software to create their graphics for the animation.

## Implementation

55-minute lessons

Students will work through the topic areas, reflecting regularly on their knowledge and understanding throughout. Each topic provides opportunities to build up skills through practical and theoretical activities.

Each unit will conclude with a topic-based assessment highlighting the skills developed during the unit, pupils will reflect and improve through peer and self-assessment.

TLAC strategies are used in all lesson implementation: Retrieval tasks , whiteboards in planners used as exit with 3,2,1 turn and talk, opportunities are provided throughout each module, these include group tasks that provide chances for students to interact with each other, demonstrate levels of communication and leadership.

Homework will consist mostly of a flipped learning activity approach that has proven through research-based learning to be effective in supporting development of prior knowledge to enhance in class learning. Each project will have a number of homework activities planned.

**KS3 Assessment principles: ( expected and greater depth)**

Retrieval questions
Exit tickets
Homework
Booklets have a progress check
Peer and self assessment.
Teacher feedback and student feedback
nonprogress

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**Prior Learning**

- Year 5/6 some experience of ICT varies between each primary.

**Future learning**

- Year 8: computing/micro bits

## Impact:

Students will have an overall good knowledge and understanding of how computer systems work, how the benefits of using ICT can be used to promote Learning by a hands-on approach also enabling the pupils to work at their own pace, opening a wide range of up-to-date learning materials using the internet, enriching learning through the use of: audio, video, images, text and animation. This intern enhances learning through interaction and collaboration. Students will build up transferable skills through the database unit and will develop a good knowledge and understanding of programming skills and terminology in preparation for learning textual based programming in year 8 .

# KS3 ICT

**Excel skills: spy school**

- Enter data into a spreadsheet and identify cell references correctly
- Create basic formula using cell references correctly
- Formatting a spreadsheet
- Use AutoFill to replicate and MAX in a spreadsheet. Use the basic functions SUM, AVERAGE, MIN
- Sort a spreadsheet and apply filters
- Format the graphs appropriately and use data which is not next to each other on the spreadsheet.

**Computing skills**

- Computer uses: different types of computers and there uses
- To identify Input/output devices and their functions.
- How Operating systems work and identify the different systems available.
- Identify Health safety concerns in s computer room and explain how to avoid them.
- Use Programming software to execute different programs and create programs to perform a function within the program

Computing

Year 8

Computer crime & cyberbullying

**Computer crime and cyberbullying skills**

- Define key terms to do with privacy and security threats
- Describe several ways in which individuals and organisations can protect their data
- Describe cyber crime and how to prevent it.
- Explain the consequences of what you post online and the impact it has on your digital footprint
- Explain positive and negative ways in which technological developments have impacted the world
- Describe Copyright and how to avoid breach of copyright.
- to demonstrate an understanding of the common physical problems associated with ICT

Excel

Photoshop

**Photoshop Skills**

- Create a new Photoshop document and select settings and tools of the user interface.
- Describe key tools and the function of them.
- Import images into Photoshop. Terms
- Use the editing tools to create graphics
- Can explain how to save/export a file and explain the choice of file type.

website

**Serif plus skills**

- Create a file structure using folders for website.
- Use the web software to build a site.
- Create an index page with working navigation system
- To use tools within serif to edit/change design of navigation system.
- Create a page layout suitable to specification using tables.
- Import images into pages.
- Create interactive elements: using different media sources.
- Save and publish site.
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Year 9

Scheme of Learning YEAR OVERVIEW

## The Big Picture

Year Group 8

Students will be introduced to computing, computer crime, cybersecurity how to protect data, identify scams, hacking and copyright implications, how spreadsheets can be used effectively to create a database, graphic software and web design software.

## Intent:

The Units that will be covered are Computing, Computer crime and cyber security,, Graphics and introduction to web design

**Skills**: Students will develop an understanding of binary and denary, programming using visual textual based programming software and will work through a range of activities developing their own program based on their knowledge and understanding. They will use excel and a range of software tools,. within excel to solve problems within spy school; formula, functions, formatting and sorting data. Students will develop their skills and understanding of using a graphics software to edit and create graphics using all the tools available with Photoshop. Students will use web design software to create a website for a given audience to include master page , suitable navigation system, linked pages, hyperlinks and use of multimedia throughout the website.

## Implementation

Students will work through the topic areas, reflecting regularly on their knowledge and understanding throughout. Each topic provides opportunities to build up skills through practical and theoretical activities.

Each unit will conclude with a topic-based assessment highlighting the skills developed during the unit, pupils will reflect and improve through peer and self assessment.

LORIC opportunities are provided throughout each module, these include group tasks that provide chances for students to interact with other, demonstrate levels of communication and leadership.

Homework will consist mostly of a flipped learning activity approach that has proven through research-based learning to be effective in supporting development of prior knowledge to enhance in class learning. Each project will have a number of homework assignments activities planned.

**Key assessments:**

- **Baseline assessment will take place at start and end of each topic to measure progress.**
- **Deep marking points**
- **Homework will be peer marked or used in lesson.**
- **Teachers will live mark/ and mark each topic-based assessment.**

**Prior learning**

- Assessment: baseline
- Project based assessment

**Future learning**

- Year 9
- Skills for using graphics
- Business project
- Story telling through a comic
- Website:

## Impact:

Students will develop good knowledge and understanding of: computing, computer crime , cybersecurity, designing graphics and web design. Learning by a hands-on approach also enables the pupils to work at their own pace this also promotes learning through interaction and collaboration.

Students will build up transferable skills through the computer crime ,cyberbullying, graphics and web design units to develop a good knowledge and skills understanding in preparation for imedia skills course in year 9 .

# Scheme of Learning YEAR 9 OVERVIEW

## The Big Picture: Preparation for, and introduction to, OCR Cambridge Nationals Level 1/2 Certificate in Creative imedia

Year Group 9

Students will be introduced to Cambridge National Certificate in Creative imedia this course equips students with a wide range of knowledge and skills needed to work in the creative digital media sector. They start at pre-production and develop their skills through practical assignments as they create final multimedia products.

## Intent:

Year 9 is used as a skills building year, in preparation for students starting their coursework in Year 10. A number of 'mini projects' are completed with the aim of students exploring different work-based scenarios where they are required to design, create and evaluate digital solutions and develop their ICT skills. Students' will develop key skills in planning and creating digital media, comic creation multimedia solutions that meet both a client's and a target audience's requirements. They will also have a brief introduction to enterprise and marketing to create a project-based product

## Implementation

Students will work through the topic areas, reflecting regularly on topics-based on their knowledge and understanding throughout. Each topic provides opportunities to build up skills through practical and theoretical activities.

Each unit will conclude with a topic-based assessment highlighting the skills developed during the unit, pupils will reflect and improve through peer and self assessment.

LORIC opportunities are provided throughout each module, these include group tasks that provide chances for students to interact with other, demonstrate levels of communication and leadership.

Homework will consist mostly of a flipped learning activity approach that has proven through research-based learning to be effective in supporting development of prior knowledge to enhance in class learning. Each project will have a number of homework activities planned.

**Key assessments:**

- **Baseline assessment will take place at start and end of each topic to measure progress.**
- **Deep marking points**
- **Homework will be peer marked or used in lesson.**
- **Teachers will live mark/ and mark each topic-based assessment.**

**Prior learning**

- Assessment: baseline
- Project based assessment

**Future learning**

- Skills for using with the coursework elements of the course.
- Story telling through a comic
- Visual identity and graphics
- Enterprise and marketing

## Impact: Students will develop good knowledge, skills and understanding of the exam-based unit which underpins the entire course. Learning by a hands-on approach also enables the pupils to work at their own pace this also promotes learning through interaction and collaboration. Students will build up transferable skills through each skills unit in preparation for the imedia course year 10/11