



# Sixth Form Preparation for Success

## Welcome to Digital Games Production

[Level 3 National Extended Certificate in Digital Games Production]

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### Introduction



The computer games industry has become one of the fastest growing forms of media entertainment. Sales are now higher in the UK than for the video and music industries combined.

Global sales of game software exceed £10 billion annually.

This course is designed to introduce to students how computer games and interactive

products are designed, developed and produced.

Students will create digital games (from initial concept to design), study development & programming, and therefore start to develop the technical skills required to work in the games industry. Students will learn about the various roles and responsibilities in the industry – from technical artists to game developers and programmers to games testers – and how these individuals work together to create games. Students will also learn to write proposals and pitches for a commission, produce a games treatment outlining their ideas and concepts, and advance their production skills.

There are increasing opportunities for students to progress to study a related course at university such as Games Design or onto a relevant apprenticeship.



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# Part I – Y11 into 12 Digital Games Production Specific

## Bridging Work

To be completed May – Sept

Remember that prizes will be awarded for ‘exceptional’ work that demonstrates effort above expectation!

a) **Investigate places of interest** – If you can’t physically visit them, try a virtual tour.

1. The National Museum of Computing . Has a virtual tour option. You can move around the galleries looking at the machines and their descriptions including hyperlinks to video and text explanations providing further detail and history of the exhibits.  
<https://www.tnmoc.org/news-releases/2017/6/6/3d-virtual-tour-now-online>
2. Bletchley Park, Why not explore home of the codebreakers.  
<https://www.bletchleypark.org.uk/>
3. The UK Computer Museum, Cambridge <http://www.computinghistory.org.uk/>
4. The National Videogame Museum <https://thenvm.org/exhibitions/> Lot of things video game related – situated in Sheffield well worth a visit.

b) **Wider reading:** Below is a selection of links to websites, books and magazines that provide an insight into the subject of Game Development. The subject is continually changing and so it’s a good idea to keep up to date.

### Books

Games, Design and Play: A Detailed Approach to Iterative Game Design by Colleen Macklin

Level Up! The Guide to Great Video Game Design by Scott Rogers

GameMaker Language: An InDepth Guide by Benjamin Anderson

Computational Fairy Tales – Jeremy Kubica

GitHub (free programming ebooks)

<https://github.com/EbookFoundation/free-programming-books/blob/master/free-programming-books.md#javascript>

### Magazines and Journals

Wired Magazine - [www.wired.co.uk](http://www.wired.co.uk)

The Register - [www.theregister.co.uk](http://www.theregister.co.uk)

Engadget - [www.engadget.com](http://www.engadget.com)

Tech radar - [www.techradar.com](http://www.techradar.com)

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Tech Crunch - <https://techcrunch.com>  
The Guardian - [www.theguardian.com/technology/computing](http://www.theguardian.com/technology/computing)  
PC Gamer - [www.pcgamer.com/uk/](http://www.pcgamer.com/uk/)  
110% Gaming Magazine - [www.110gaming.com/](http://www.110gaming.com/)  
Retro Gamer - [www.retrogamer.net/](http://www.retrogamer.net/)

### **Websites and online learning**

Brilliant - <https://brilliant.org/computer-science/computer-science/>

Program Arcade Games -  
<http://programarcadegames.com/>

GameMaker  
<https://www.yoyogames.com/en/get>

UnReal Engine  
[Online Learning - Unreal Engine](#)

Unity  
[Online and in-person courses & training in 2D, 3D, AR, & VR development | E-Learning \(unity.com\)](#)

Kongregate  
<https://www.kongregate.com/>

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## c) Compulsory task

Making your own Computer Games are a big part of this course.

This task will guide you through installing and creating your own game in Unity.

Follow this Unity tutorial it will show you how to download and install Unity and how to create your first game from [How to Make a Game - Unity Beginner Tutorial - 2021 Version!](#).



Complete **the mad birds game** tutorial - (check the comments on the youtube page if you get stuck on anything). Good luck!!!!

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## Research

Watch the following videos on Game design these will give you ideas and inspiration for the following tasks.

[https://www.youtube.com/watch?v=RRu6mlaSdT0&ab\\_channel=Blackthornprod](https://www.youtube.com/watch?v=RRu6mlaSdT0&ab_channel=Blackthornprod)

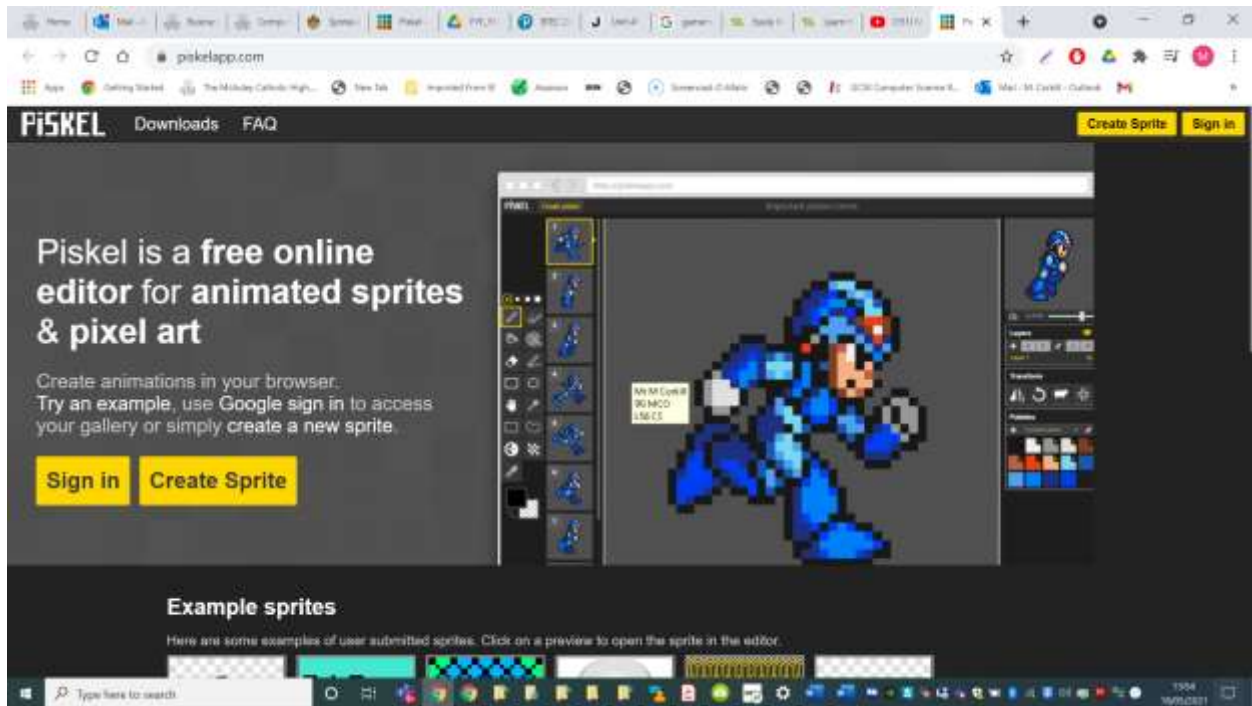
[https://www.youtube.com/watch?v=2aIIrDamNT4&ab\\_channel=AskGamedev](https://www.youtube.com/watch?v=2aIIrDamNT4&ab_channel=AskGamedev)

[https://www.youtube.com/watch?v=z06QR-tz1\\_o&ab\\_channel=ExtraCredits](https://www.youtube.com/watch?v=z06QR-tz1_o&ab_channel=ExtraCredits)

## Create a sprite Task

Use the online sprite drawing software [www.piskelapp.com](http://www.piskelapp.com) in order to create a series of animated sprites.

This could be something as simple as an explosion, power-up, space ship etc.



Click on the resources link below for basic tutorials.

Ensure that you create at least three different animations.

Once complete create a short presentation explaining your development.

Outcomes:

- Three different sprite animations
- Have these exported as a gif animation
- A short presentation of the process with an evaluation

Resources

Click [here](#) for links relating to this project

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## d) Stretch

Using traditional or digital techniques; pencils, pens, paints etc

- Design and complete your own piece of concept art;
  - This could be; Character/s, vehicles, interior, exterior scenes
- Produce on either paper or digital (Photoshop)
- Print or take a photo and bring in with you in September
  - This can be used as evidence towards first unit?

Using the 'guide' synopsis

- In no more than 250 words;
  - Write a game synopsis which incorporates your concept art
- Read the below synopsis and produce your own;
  - Bring this with you in September. Again you can use this towards first unit as evidence.

The year is 1960, while flying over the Atlantic ocean, average citizen Jack blacks out and awakens to discover that he is the sole survivor of a plane crash. Amidst the wreckage of his plane Jack spots and swims to a lighthouse and boards a Bathysphere that takes him deep within the ocean and into Rapture. Originally conceived as a utopia where a man would be entitled to all that he made without the interference of "parasites" by idealistic billionaire mogul Andrew Ryan. Rapture has since decayed and festered from the infectious effects of civil war and anarchy, brought about by the very ideals it citizens and it's leader embrace. Aided by a sympathetic smuggler and a rogue geneticist, Jack salvages gene altering chemicals transforming himself into a superhuman, and uses his newfound powers and abilities as well as an arsenal of weapons to fend off the vicious hordes of psychotic mutants, security robots and armored supersoldiers that resulted from Rapture's unrest while given the choice to either rescue or lethally harvest the genetic material from Rapture's only citizens with a chance: the 10 year old "Little Sisters". As Jack wanders through the condemning atmosphere of rapture, he treads towards a secret that for could shatter all that he has known forever.

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## Part II - Year 12 Head Start!

### Course specification

The course we follow is BTEC Level 3 Digital Games Production. The Specification Code is 603/1912/4. It is provided by the Pearson (Edexcel) Examining board. Click [here](#) to view and download the specification:

### Scheme of Work

Schemes of work are available on the Digital Games Production folder on the school ICT Drive click [here](#).

### Additional links

The following list contain useful information:

### Other websites

- <https://www.wired.co.uk/topic/technology> - wired magazine
- <https://twit.tv/shows/floss-weekly> weekly podcast focusing on open source and free software
- <https://www.futurelearn.com/courses/categories/tech-and-coding-courses> free and paid for online courses
- Dark Net – documentary (available on amazon prime)
- Defcon: the documentary – documentary
- Terms and conditions may apply – documentary (available on amazon prime)