

Unit Title:	Developing digital games using game creation software
Level:	2
OCR unit number:	216
Credit value:	5
Guided learning hours:	40
Unit reference number:	F/600/7740

Unit purpose and aim

This unit helps learners to understand the basics of digital games and environments for the creative and media sector. It allows them to understand the client brief and time frames and deadlines and preparation techniques to form part of the planning and creation process:

- Candidates will explore different types of digital games and environments
- Plan a digital game to the client brief
- Create and edit the digital game
- Review the final product with against the original brief

The aim of this unit is for the learner to develop an awareness of the current use of game creation software and the implications of this technology in the Creative Media sector. The learner will also learn how to exploit these technologies to reach new audiences and generate revenue.

Learning Outcomes	Assessment Criteria	Knowledge, understanding and skills
1 Be able to investigate game creation environments	1.1 Research a range of software used for game creation 1.2 Describe the capabilities of software for game creation 1.3 Investigate the hardware, peripherals and software required to create and play digital games	Candidates should investigate a range of game creation software e.g. game engines, game editors, programming and/or scripting. A range indicates a minimum of 3 types. Capabilities of software for game creation may include 2D/3D environments, drag and drop features, player interactivity features, asset libraries, importing multimedia assets, (e.g. graphics, scenes, audio, video) Candidates should produce a report on their findings to inform

		<p>the creation process</p> <p>Candidates should identify the hardware specification for both development and target platforms. The software for development and output formats should be included together with other equipment needed to play a digital game e.g., keyboard, mouse, joystick, handheld controllers, motion sensors</p>
<p>2 Be able to plan a digital game and creation schedule to a specific brief</p>	<p>2.1 Identify client requirements based on their brief to include the target audience</p> <p>2.2 Create a work plan to produce the original digital game to include</p> <p>a) assets</p> <p>b) resources</p> <p>a) timescales</p> <p>2.3 Source the assets needed to create the digital game and save in appropriate formats</p> <p>2.4 List copyright implications of any assets to be sourced</p>	<p>The plan will include details of client requirements, activities to be carried out with proposed timescales and deadlines, assets to be sourced and equipment to be used.</p> <p>Sources of assets should be referenced and the copyright status identified</p> <p>A digital game may be either 2D or 3D at this level</p>
<p>3 Be able to create, save and test the digital game</p>	<p>3.1 Create the game to the client instructions</p> <p>3.2 Save the digital game in the required format as specified by the client brief</p> <p>3.3 Organise electronic files using appropriate naming conventions to facilitate access by others</p> <p>3.4 Develop and use a test plan to test the digital game</p> <p>3.5 Correct any identified faults and apply corrections based on the test plan.</p> <p>3.6 Identify improvements to</p>	<p>Candidates should identify methods for adding/importing assets, naming conventions and understand object properties (e.g. visibility, solidity)</p> <p>Candidates should be able to demonstrate proficiency in the use of a digital game engine, including the ability to:</p> <ul style="list-style-type: none"> • Add/create a game room • Select room size • Set grid size • Use appropriate size and design of background (e.g. layering) • Create events which may occur during game play (e.g. collisions, interactions between objects, mouse/keyboard controls.

	<p>the digital game</p> <p>3.7 Plan the improvements</p> <p>3.8 Apply improvements and save a new version</p>	<ul style="list-style-type: none"> Specify an action (e.g. scoring, moving, timing) <p>The digital game should be saved/exported in a format so that it can be viewed for moderation purposes.</p> <p>Candidates should test their digital game and make any improvements required. Candidates should correct and retest as appropriate.</p> <p>Improvements would include aspects not clearly defined or omitted from the original brief, and could include :Movement, scoring, interactions, obstacles and non-player characters</p> <p>Planning the improvements should include updates to the work plan and appropriate visualisations/storyboards for the changes to be made</p>
<p>4 Understand how to review the digital game against the original brief</p>	<p>4.1 Critically review the improved product with the client and record feedback</p> <p>4.2 Describe the quality of the improved product.</p> <p>4.3 Explain the fitness for purpose of the improved product</p> <p>4.4 Identify parameters and constraints that influenced decisions made</p> <p>4.5 Produce accurate written records of relevant information about assets obtained such as</p> <ol style="list-style-type: none"> source ownership any restrictions on use where they are located, filenames given 	<p>Critical personal review, commenting on the quality of finished product and its fitness for purpose</p> <p>The review should identify positives and negatives relating to the finished product, rather than the creation process as this has been included in earlier evidence.</p> <p>Candidates should review the digital game against the original brief and obtain feedback from their client. They should identify any parameters and constraints that influenced their decisions. For example asset manipulation, file formats, compression techniques, permission and subject matter/location, copyright, IPR, trademarks etc</p> <p>Maintain accurate written records of relevant information about assets obtained, such as source, ownership, any restrictions on use, where they are located, filenames given</p>

		The quality of the improved game may be described in terms of playability, graphics, sounds and interaction
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Assessment

Assessment will consist of the candidate producing evidence to an OCR set or centre devised brief. All the learning outcomes and assessment criteria must be clearly evidenced in the submitted work, which is remotely moderated by OCR within their e-portfolio solution.

Results will be Pass or Fail.

Evidence requirements

This unit aims to equip the candidate with the ability to produce work for a client to create a digital game to a standard that meets the requirements of the brief. The candidate is able to work with the client to an agreed design brief to produce a completed product and to use the necessary tools and source the required resources as appropriate.

- 1 Candidates should present a report or presentation to show their understanding of the types and environments for digital games.

- 2 A plan to show that they have identified the client requirements, that they understand the appropriate equipment, resources and formats of digital games to meet the brief. Candidates should be able to produce a work plan for the digital game to create and play.

Candidates should create sketches or drawings of ideas.

These sketches should be digitised and submitted with a planning document for moderation.

The planning document clearly meeting all the learning outcomes must be submitted for moderation.

- 3 Be able to produce the digital game in line with their plan to include:
 - Creating the game to the client instructions
 - Saving the digital game in the required format as specified by the client brief
 - Developing and using a test plan to test the digital game
 - Correcting any identified faults and applying corrections based on the test plan.
 - Identifying and planning improvements to the digital game

- Applying improvements and saving a new version

Evidence should also include a list of file names, types and properties of created files.

Candidates should submit the edited files and annotated screen captures in a report will also assist in evidencing their activities.

- 4 Candidates should prepare a review file to compare the finished product to the original brief and plan.

This should include the identification of any parameters and constraints that influenced decisions that were made e.g. file formats, asset manipulation, software and hardware constraints, copyright permissions, a critical review of the quality of the finished products and their fitness for purpose. A review of the game and the creation process with the client must be recorded and a record of feedback.

In this critical review candidates should also identify areas for improvement and further development of the game.

Guidance on assessment and evidence requirements

Candidates must produce all work to an acceptable standard and meet all the identified assessment objectives and learning outcomes.

A report that incorporates, for example, client discussion, written brief, specification, end user requirements, purpose and timescales must be submitted.

Screen captures of the finished product do not evidence the planning process.

Screen captures will need to evidence the creation process, using an appropriate range of tools and techniques

Candidates should submit files created at all stages of the process to include the final product. This evidence should be provided in a compressed digital format.

Students should produce critical review reflecting upon how successfully product meets the requirements of the brief, identifying any parameters and constraints that influenced their decisions. (e.g., file formats, asset manipulation, software and hardware constraints, copyright permissions) identifying what they would do differently if faced by a similar task and why.

You should refer to the 'Admin Guide: Vocational Qualifications (A850)' for Notes on Preventing Computer-Assisted Malpractice.

Details of relationship between the unit and national occupational standards

OCR Creative iMedia		Content crossover with National Occupational Standards	
Unit	Title		
216	Developing digital games using game creation software	IM1	Work Effectively in Interactive Media

Resources

Equipment: A computer system capable of running a range software packages that will enable the candidate to meet the requirements of the client must be used.

Additional information

For further information regarding administration for this qualification, please refer to the OCR document '*Admin Guide: Vocational Qualifications*' (A850).