# Lesson Element

# Unit R091: Game Development – Designing a game concept

### Exploring digital games

## Instructions and answers for tutors

These instructions cover the learner activity section which can be found on [page 6](#_Lesson_Element:_Exploring). This Lesson Element supports Cambridge Nationals Level 1/2 in Creative iMedia.

**When distributing the activity section to the learners either as a printed copy or as a Word file you will need to remove the tutor instructions section.**

### Suggested timings

Task 1 – 15 minutes

Task 2 – 30 minutes

Task 3 – 30 minutes

### Supporting documents

* Game research questionnaire.doc

**ABC –** This activity offers an opportunity for English skills development.

**123** **–** This activity offers an opportunity for maths skills development.

**WORK** **–** This activity offers an opportunity for work experience.

### Teacher instructions: Activity 1

*Expected duration: 15 minutes*

#### Teacher note – Introduction to this Lesson Element

There are three activities that cover the process of designing a new game concept. These should be delivered in sequence.

* **Activity 1:** Focusses on the initial concept research and how to generate outline ideas for a new game.
* **Activity 2:** Is about developing the outline ideas for a new game.
* **Activity 3:** In this activity the learners will transform their ideas into visualisation diagrams for a game characters and the environment.

The teacher could start with a group discussion on what game platforms the learners actually own or use.

This should move on to identify what are the main features of the platforms are and how they are used.

The teacher should ensure platforms include smartphones, PC, handheld devices and consoles.

Learners could then identify what gaming platforms they use at home and compare the main features of each.

A record of the information should be kept (e.g. notes, documents or photographs of a whiteboard).

**Note to teachers:** Make reference to the link template provided in activity one, explain how it could be utilised and the outcomes could be used. The templates could be completed by each learner and then they get together in small groups to compare what they use and why they like them.

| **Game platform** | **Main features** |
| --- | --- |
| **Consoles**Do you have a console and what type? | For example* Xbox, PS4, Wii.
* Dedicated hardware for game playing.
* Stability – build configuration is set by manufacturer (unlike PCs with a wide range of specifications).
* Will only run games developed for the console – not interchangeable.
* Typically have Wi-Fi connections for online multiplayer games.
* Users may be able to customise games but not develop any which is typically restricted to larger game development organisations.
 |
| **Handheld gaming devices**Do you have (or have you played) on one of these?How does it compare? | For example* Dedicated hardware for game playing.
* Small screen difficult to see?
* Battery life?
* Limited range of games?
 |
| **Computers**How do these compare to consoles? | For example* Multi-purpose device – can be used for purposes other than playing games.
* Is it stable – does it crash?
* Drivers and software updates needed.
* Graphics card performance?
 |
| **Smartphones**What type of Smartphone (eg iPhone or Android), what display and interface controls are like? | For example* Multi-purpose device – can be used for purposes other than playing games.
* Smaller screens with limited storage space.
* Built in gyro for motion sensing.
* App development kits are more accessible so that more people can develop their own games.
 |

| **Feature** | **Effectiveness** |
| --- | --- |
| **Display graphics:**Think about different platforms, their screen size and resolution. | For example* TV screen vs computer monitor.
* Screen update or refresh rate.
* Specialist graphics cards needed?
* 2D games versus 3D games.
 |
| **Interface controls:**How do you control the game? | For example* Keyboard/mouse.
* Joystick/wheel.
* Handheld controller.
* Motion sensing controller (eg rotate, tilt).
* Optical recognition of player’s movement.
 |
| **Motion sensing:**Any options for direction and speed of movement? | For example* Hand or arm movement – using built in gyro (iPhone) motion controller (Wii) or optical recognition (Xbox Kinect).
* Touch pad eg Wii fit board.
 |
| **‘in game’ communications:**Can you talk to other players? If so, how? | For example* Using a headset to talk/listen.
* Text messaging.
 |

### Teacher instructions: Activity 2

*Expected duration: 30 minutes*

The teacher could provide a blank space for use as a mood board. This could be a pin board in the classroom. Alternatively a white board could be used to develop a mind map.

The content of the mood board/mind map should be based around the features of different gaming platforms.

This mood board/mind map could be added to over several weeks of unit delivery. Key features (or branches of a mind map) should include:

* hardware
* display
* delivery method
* networking
* storage
* interface
* peripherals.

### Teacher instructions: Activity 3

*Expected duration: 30 minutes*

This could be a homework activity. Learners could ask their parents and other people in a similar age group what digital games they played when younger. This can be supported by the supplied questionnaire included in the learner activity.

Learners should aim to find out about the platform, game genre and game objectives.

The results obtained could form the basis of a question and answer session to share the information gained. Some of this information could be added to the class mood board or mind map.

**Note to teachers:** The results of the homework can be used in the class discussion. The teacher should cover each of the sections in the questionnaire as follows:

|  |  |
| --- | --- |
| **1** | Have you ever played any digital or electronic games? |
| Teacher input: To find out what proportion of people have played games. Q: What results did you get for the first question? How many have played digital or electronic games? Board games don’t count here.Q: Did you find anybody that has not played some form of digital or electronic game? |
| **2** | When was this – recently or 10, 20, 30 years ago? |
| Teacher input: The purpose of this question is to find out about the popularity of electronic games. Start a discussion about how many adults played games when they were younger and still do so today. |
| **3** | What platform(s) were used? (Examples might be a computer, console, arcade or handheld). |
| Teacher input: 20–30 years ago arcade games were popular but consoles and smartphones are now widely used. Start a discussion to see if this is true from the survey. |
| **4** | What games did you play and what did you have to do? |
|  |
| **5** | What was the genre of these games? For example, shoot-em-up, racing, strategy, quest |
| Teacher input: This will start a discussion on game genres. A good approach would be to discuss the type of games that people played from question (4) and then decide what genre it would be. Bear in mind that games don’t always fit a single category – they can be more than one genre. |

By the end of this discussion, the teacher should ensure learners understand what genre each of the games are (e.g. action, sports, role playing, quest, strategy).

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# Lesson Element: Exploring digital games

## Learner Activity 1

You will join in with a group discussion on what game platforms you own or use. This could include consoles, handheld gaming devices, computers and smartphones.

You will need to say what the main features of the platforms that you have some knowledge or experience with. Use the table below to capture this information.

| **Game platform** | **Main features** |
| --- | --- |
| **Consoles**Do you have a console and what type? |  |
| **Handheld gaming devices**Do you have (or have you played) on one of these?How does it compare? |  |
| **Computers**How do these compare to consoles? |  |
| **Smartphones**What type of Smartphone (eg iPhone or Android), what display and interface controls are like? |  |

Think about the following features in any game platforms that you have used. Produce some notes about how effective they are and whether a good feature for the type of game. You may want to include these when developing ideas for your own game concepts.

| **Feature** | **Effectiveness** |
| --- | --- |
| **Display graphics:**Think about different platforms, their screen size and resolution. |  |
| **Interface controls:**How do you control the game? |  |
| **Motion sensing:**Any options for direction and speed of movement? |  |
| **‘in game’ communications:**Can you talk to other players? If so, how? |  |

## Learner Activity 2

The teacher will provide a blank space for use as a mood board. This could be a pin board in the classroom. Alternatively a white board might be used to develop a mind map.

The content of the mood board/mind map should be based around the features of different gaming platforms. You will be asked to find examples of features and place these on the mood board. These could be in the form of written notes, printouts or pictures.

This mood board/mind map could be added to over several weeks of unit delivery. Key features (or branches of a mind map) could include:

* hardware
* display
* delivery method
* networking
* storage
* interface
* peripherals.

## Learner Activity 3

This is a homework activity. Using the questionnaire below, ask your parents or other people in a similar age group, what digital games they played when they were younger.

The information to ask will include the platform, game genre and game objectives.

You will then join in a group activity in class to talk about the information that you have obtained. If you want to know more about one of these games – ask about it. Your teacher might be able to help or even know the game.

Some of this information could be added to your class mood board or mind map.

Your teacher will make sure you understand what genre each of the games are. Some of these might be action, sports, role playing, quest or strategy.

### Game Research Questionnaire

Use this form to gather information on game platforms and digital games played by other people. Make sure you include a range of people from different age groups.

|  |  |
| --- | --- |
| **1** | Have you ever played any digital or electronic games? |
|  |
| **2** | When was this – recently or 10, 20, 30 years ago? |
|  |
| **3** | What platform(s) were used? (Examples might be a computer, console, arcade or handheld). |
|  |
| **4** | What games did you play and what did you have to do? |
|  |
| **5** | What was the genre of these games? For example, shoot-em-up, racing, strategy, quest. |
|  |