**Tortuosity VR Game**

**Team Members:**

John Rugen – Project Manager

Louis Nevers – Lead Developer

Lead Artist – Gareth Wilson

Lead Designer – Mohammed Qasim

Executive Summary –

* A VR based geology experience using Unreal Engine 4 and blueprints
* A series of flash cards to educate students with terminology
* Used to revise key words from geology lectures within MMU
* An engaging and educational experience to put a twist on revising lecture notes
* Students can use the Oculus headset and hand held controls to interact with the game

High Concept Statement –

Much like the web-based game, Tortuosity VR is a virtual reality educational game. The game has the player positioned within a volcano and presented with a wall made up of hexagons. These hexagons reveal a geology-based statement around the map when selected by the player. This then shows a piece of relevant information with a keyword featured that begins with the initial letter on the hexagon selected.

The hexagons will be incorporated into the game, as the design brief was to make the game look similar to Blockbusters; this was to make the hexagons represent the magma chambers, which the students can move through to complete the flash cards. The letters on each hexagon represent the first letter of the keyword that will appear when it is selected.

Genre –

Virtual reality, educational game.

Hooks –

* Flash cards are based around geology terms allowing the player to revise in a fun, interactive and visually appealing way.
* Players are immersed by being placed in the centre of a volcano
* Players interact with the surroundings using Oculus’ hand held motion controllers
* Text appears around the game, making the player have to look around to find the information
* The game will be highly relevant to students as they are studying geology. This should interest them as it allows them to revise keywords in a fun way.

Licence –

No licence will be needed

Gameplay highlights –

* Interactive learning environment
* Allows players to quickly learn keywords and their meanings
* Easy and simplistic way to revise.

Technology Highlights –

The game is being developed in Unreal Engine 4 using assets and blueprints within the software. It will be created to support VR.

Art and Audio Highlights –

The game will feature volcanic scenery to immerse the player into the targeted genre of the game. The game board will be presented in front of the player and will consist of multiple hexagons which will have textures relevant to the scenery. The text will be of a contrasting colour, allowing the player to identify the keywords and meanings easily.

Hardware –

Any device compatible with the Oculus Rift.