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| Stage 2 Game Development  **AT3 Resource Study**  **(Externally Assessed 30%)** |

**Part A: Resource Investigation (1000 words)**

Research and analyse the characteristics and properties for the recording and preparation of sounds or graphics (i.e. sound effects & optimised graphics) for their multimedia application.

Investigate the ways in which the properties of the equipment and software used to capture and optimised the materials relates to their performance and their selection for use in specific situations.

For example:

* Exploring characteristics of sound formats (WAV and MP3)
* Exploring characteristics of graphic formats (JPEG and PNG)

The investigation should involve practical testing, comparative evaluation and a summative evaluation. There should also be information researched from secondary sources and include tables, comparative examples, annotated images and graphs.

The equipment, processes and media you choose to study should be directly linked to your multimedia product that will be developed. You will need to investigate the most suitable resources and processes and ways in which the properties of materials relate to their performance and their selection for use in specific situations

A good start would be to do some secondary research on your 2 chosen materials and the equipment being used so that you have a good depth of knowledge of their properties and characteristics. This will be important to design suitable tests and having some background information to be able to effectively write an analyse of your test results.

The testing procedures should result in coming up with recommended specifications for two materials that you intend to use within your final product (i.e. specifications for how a sound will be recorded and then prepared for use within your application). By experimenting with a variety of methods that can be employed to optimise a file (i.e. lossy compression) you will research the material, perform tests and analyse the results to provide discussion on your findings.

Quantitative data must be gathered using testing procedures. This should be communicated via tables and graphs. Final recommendations in relation to procedures and material properties should be made. (i.e. testing a variety of sound/graphic file properties; analysing the results; and making informed recommendations for your product based on the data).

The report should be word processed and contain a maximum of 1000 words. Include prescribed title page and SACE number on each page as a footer. Do not include your name anywhere on the document.

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| **Assessment** |  |
| Investigating and Analysis | I1 | Analyse the design features of products, processes, materials, systems and/or production techniques. |
| Design Development and Planning | D2 | Evaluation of the solution features, realisation process and/or response to issues. |

**Part B: Issue Investigation (1000 words)**

Students investigate and analyse ethical, legal, economic and/or sustainability issues related to their solution. This will include the critical investigation/analysis of the individual, social or environmental effects of selected technological products or processes in a given situation. Broad research and a concise understanding of this issue will determine how well you are able to develop your ideas and thus the ability to concisely analyse the issue in relation to the industry being explored. Consider possible future technological developments/solutions and their impacts on the social and physical environment.

Examples include:

* Gaming addiction
* Globalisation and outsourcing
* Industry crunch culture
* In-game advertising
* Obsolescence and e-waste
* Censorship and access to age inappropriate media
* Cultural sensitivities

You must have a research plan approved by your teacher before you undertake your investigation.

Your critical discussion should incorporate supporting sources and examples. They must be referenced correctly and include a formatted bibliography.

The report should be word processed and contain a maximum of 1000 words. Include prescribed title page and SACE number on each page as a footer. Do not include your name anywhere on the document.

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| **Assessment** |  |
| Investigating and Analysis | I2 | Analyse ethical, legal, economic and/or sustainability issues related to a solution. |
| Evaluating | E1 | Evaluation of the solution features, realisation process and/or response to issues. |