**STAGE 1 Design and Technology –Communication Products**

**Assessment Type 1: Practical Skills**

**Materials Applications - Cameras**

**Purpose**

To provide you with the opportunity to:

* Demonstrate research and communication skills
* Examine the impacts of technology on society

**Description of assessment**

A couple are expecting their first child. They wish to purchase a camera for recording its growth. At present they only have the cameras on their phones (4MP). They will mainly be taking photos for display on digital photo frames or printing to 13cm x 18cm, but would like to be able to print some of the images for display on walls at 61cm x 91cm. They would also like to take some HD video and have a budget of $1000. Explain the pros and con of different types of cameras, eg DSLR vs Mirrorless vs sports action cameras (GoPro)

The final product is:

* A referenced investigation into which camera should be purchased, with justifications. (600 words)

**Assessment Conditions**

This assessment task is to be completed in two weeks.

Class time and study time may be used to complete the task.

**References**

All references should contain an author, date of publication, Title and publication location. Websites should also have view dates

e.g. Grunin, Lori, 2012, Best Mirrorless Cameras for less than $1000, [http://news.cnet.com/8301-17938\_105-57360565-1/best-mirrorless-cameras-for-less-than-$1000/](http://news.cnet.com/8301-17938_105-57360565-1/best-mirrorless-cameras-for-less-than-%241000/), [Viewed 9/8/12]

Here are some sites to get started with.

<http://www.trustedreviews.com/top-ten-cameras_round-up>

<http://au.pcmag.com/camera/89/guide/the-best-digital-cameras-of-2017>

[http://www.tomsguide.com/us/best-cameras,review-2196.html](http://www.tomsguide.com/us/best-cameras%2Creview-2196.html)

Save your Investigation as a Powerpoint presentation in the Submit folder on your Home drive

**Draft Due T2 Week 2** 12/05/2017

**Final Due T2 Week 3** 19/05/2017

|  | * Investigating
 | * Planning
 | * Producing
 | * Evaluating
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| A | * Comprehensive and well-considered identification of a need, problem, or challenge.
* Creation and insightful validation of a clear and well-considered initial design brief.
* **In-depth investigation into the functional characteristics and properties of existing products, materials, processes, systems, and/or production techniques.**
* Planned and thorough investigation into the impact of technological practices, products, or systems on individuals, society, and/or the environment.
 | * Insightful use of relevant investigated information to create individual design ideas for a product or system.
* Thoughtful compilation of broad, varied, and refined sketches, concept drawings, plans, and sequences for planned outcomes.
* **Polished use of technical language most relevant to the context and purpose.**
* Broad and varied testing, modification, and validation of ideas or procedures.
 | * Highly proficient application of skills, processes, procedures, and techniques to create a product or system to a chosen standard and specification.
* Sophisticated use of a variety of materials, components, techniques, and equipment to create a product or system safely and accurately.
* Development of sophisticated solutions to problems that arise during product or system realisation.
 | * Comprehensive evaluation of how well the design brief requirements have been met.
* Insightful and detailed evaluation of the effectiveness of the product or system realisation process.
* Sophisticated and focused consideration of possible modifications to improve ideas or procedures.
* **Perceptive analysis of the impact of technological practices, products, or systems on individuals, society, and/or the environment.**
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| B | * Clear and considered identification of a need, problem, or challenge.
* Well-considered creation and validation of an initial design brief.
* **Some depth of investigation into the functional characteristics and properties of existing products, materials, processes, systems, and/or production techniques.**
* Detailed investigation into the impact of technological practices, products, or systems on individuals, society, and/or the environment.
 | * Thoughtful use of relevant investigated information to create individual design ideas for a product or system.
* Well-considered compilation of quality sketches, concept drawings, plans, and sequences for planned outcomes.
* **Capable use of technical language relevant to the context and purpose.**
* Considered testing, modification, and validation of ideas or procedures.
 | * Proficient application of skills, processes, procedures, and techniques to create a product or system to a chosen standard and specification.
* Thorough use of different materials, components, techniques, and equipment to create a product or system safely and mostly accurately.
* Development of thoughtful solutions to problems that arise during product or system realisation.
 | * Well-informed evaluation of how well the design brief requirements have been met.
* Well-considered and detailed evaluation of the effectiveness of the product or system realisation process.
* Thorough and focused consideration of possible modifications to improve ideas or procedures.
* **Well-considered analysis of the impact of technological practices, products, or systems on individuals, society, and/or the environment.**
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| C | * Considered identification of a need, problem, or challenge.
* Considered creation and validation of an initial design brief.
* **Informed investigation into the functional characteristics and properties of existing products, materials, processes, systems, and/or production techniques.**
* Generally competent investigation into the impact of technological practices, products, or systems on individuals, society, and/or the environment.
 | * Use of relevant investigated information to create individual design ideas for a product or system.
* Considered compilation of sketches, concept drawings, plans, and sequences for planned outcomes.
* **Competent use of technical language relevant to the context and purpose.**
* Competent testing, modification, and validation of ideas or procedures.
 | * Competent application of skills, processes, procedures, and techniques to create a product or system to a chosen standard and specification.
* Appropriate use of materials, components, techniques, and equipment to create a product or system safely and sometimes accurately.
* Development of appropriate solutions to problems that arise during product or system realisation.
 | * Informed evaluation of how well the design brief requirements have been met.
* Considered evaluation of the effectiveness of the product or system realisation process.
* Some focus in consideration of possible modifications to improve ideas or procedures.
* **Considered analysis of some of the impacts of technological practices, products, or systems on individuals, society, and/or the environment, with mostly relevant detail.**
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| D | * Partial identification of a need, problem, or challenge.
* Development and some testing of a basic, or perhaps incomplete, initial design brief.
* **Identification of a few of the functional characteristics or properties of existing products, materials, processes, systems, or production techniques.**
* Some accessing of information on the impact of aspects of technological practices, products, or systems on individuals, society, or the environment.
 | * Some use of identified information to create one or more individual design ideas for a product or system that may be only partially completed.
* Some sketches, concept drawings, plans, and/or sequences for planned outcomes are completed.
* **Use of basic technical language with some relevance to the context and purpose.**
* Some basic testing, modification, and validation of aspects of one or more ideas or procedures.
 | * Basic application of some skills in some processes, procedures, and techniques to create part of a product or system to a basic standard and specification.
* Some use of basic materials, components, techniques, or equipment to create part of a product or system with some elements of safety and accuracy considered.
* Some endeavour to solve problems that arise during product or system realisation.
 | * Some description of how well the design brief requirements have been met.
* Some description of the effectiveness of the product or system realisation process.
* Some consideration of a possible modification to improve ideas or procedures.
* **Identification and description of one or more impacts of technological practices, products, or systems on individuals, society, or the environment.**
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| E | * Limited identification of a need, problem, or challenge.
* Attempted development and testing of a design brief.
* **Attempted identification of one or more functional characteristics or properties of existing products, materials, processes, systems, or production techniques.**
* Isolated and disjointed evidence of accessing information on the impact of an aspect of a technological practice, product, or system on individuals, society, or the environment.
 | * Limited use of information to create an individual design idea for a product or system that may not be completed.
* Compilation of one or more sketches, concept drawings, plans, or sequences for planned outcomes.
* **Limited use of technical language.**
* Recognition of the need for testing, modification, and validation of ideas or procedures, with some limited attempts.
 | * Limited application of emerging skills and/or techniques to attempt to create part of a product or system to a limited standard or specification.
* Attempted use of one or more basic materials, components, techniques, or equipment, with limited consideration of safety procedures.
* Some attempted description of problems that arise during product or system realisation.
 | * Identification of some aspects of the design brief requirements that were attempted.
* Identification of some aspects of the effectiveness of the product or system realisation process.
* Emerging recognition of the need for modification to improve ideas or procedures.
* **Emerging recognition of one or more impacts of technological practices, products, or systems on individuals, society, or the environment.**
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