HSC marking simulation videoconference:
Design and Technology

Technology Unit
Curriculum K-12 Directorate

NEW SOUTH WALES DEPARTMENT OF EDUCATION AND TRAINING

NEALS

Curriculum K-12

Video Conference overview

o Outline of HSC practical marking process

o Tips for maximising your HSC results.

o Simulation of practical marking.

o Resources and Question time

Procedures for marking projects at your school

▸ Two HSC markers and a senior marker will visit your school during the 2 week marking period on an allocated date as determined by the BOS.

▸ When the HSC markers arrive at your school they will independently mark each of the projects by applying the marking criteria. The markers will then compare and discuss their marks to ensure fairness to the candidates.

▸ Ensure your design projects are set up in advance and include photographs, evidence of tests and experiments, prototypes, and your product, system or environment and your design folio.

▸ You may also wish to use multimedia to showcase your product, system or environment being used. E.g a short video to showcase your finished design in action may be appropriate.

▸ Remember that your major design project should reflect the design process you have followed during the HSC. Try and present a quality design folio and practical work which reflects your abilities.

▸ Outstanding major design projects will be awarded a DesignTech nomination. The school and student is notified at the end of the year. DesignTech is an exhibition which showcases the talents of Design and Technology students. You may be one for this year!!

A Key to Success : Effective Time Management

▸ Remaining time available = approximately 20 'calendar' weeks

▸ Ensure well-planned and realistic action/time plans are utilised to ensure your project management is successful.

▸ Keep in mind that with trial exams and other assessment tasks, this time will go very quickly for both yourself and your teacher.

▸ Don't procrastinate! Use your time effectively. Being proactive=more marks!!

"Misconceptions"

▸ Big is not best

▸ More folios do not result in more marks

▸ Avoid large slabs of text and only include relevant information

▸ Use a range of relevant communication techniques to showcase your MDP. For example, sketches, concept boards, photographs, mindmaps, tests and experiments, prototypes, CAD drawings and short videos are all effective ways to communicate to the markers.

▸ "Big and expensive" are not items on the markers checklist.

▸ "I'll do it all at home"

▸ Your teacher must certify that all work is your own and has been completed at school and any outsourced work must be declared and acknowledged in your design folio.

Major Design Project Marking Guidelines

▸ "The marking guidelines describe the full range of performance typically demonstrated by students. Descriptions are given for ranges of marks, representing performances at different levels of achievement. In marking a response, the marker initially assigns it to one of these levels, and the judgement is then refined to decide on the mark to be awarded." BOS 2001

How are the guidelines applied?

▸ The marking process will involve the Markers studying the MDP, referring to the marking guidelines to determine the candidate's level of achievement.

▸ Your attention is drawn to certain "keywords" in the guidelines and the glossary of terms.

Design and Technology Major Design Project Marking Guidelines

Project Proposal & Project Management / 15	13–15	10–12	7–9	4–6	1–3
Identification and exploration of the need	Identifies and provides a detailed exploration of genuine needs and opportunities, justifying final selection for the development of the MDP.	Identifies and provides an exploration of needs and opportunities, in relation to the development of the MDP.	States a need with some exploration in relation to the development of the MDP.	States a need with limited exploration in relation to the development of the MDP.	Need stated without clarity, nor explored in relation to the development of the MDP.
Areas of investigation	Describes relevant areas of investigation which relate clearly to the need, and provides direction for further action.	Describes some relevant areas of investigation in relation to the need and provides evidence that these were investigated.	Identifies areas of investigation in relation to the need, or shows evidence of being investigated.	Lists areas of investigation in relation to the need which may not relate to further action, or shows evidence of areas being investigated.	Names an area of investigation.
Criteria to evaluate success	Establishes and analyses appropriate criteria to evaluate the success of the PSE.	Describes appropriate criteria to evaluate the success of the PSE, with little analysis of these criteria.	Briefly describes criteria to evaluate the success of the PSE, with no analysis of these criteria.	Briefly describes criteria, some of which may be inappropriate to evaluate the success of the PSE.	Lists criteria, some of which may be inappropriate to evaluate the success of the PSE.
Action, time and finance plans and their application	Formulates and evaluates well-documented action, time and finance plans with clear evidence of their application to the PSE.	Formulates action, time and finance plans, and shows some evidence of their application to the PSE.	Formulates and applies action and/or time and/or finance plans.	Some evidence of the application of action, time or finance planning.	Action, time or finance planning not evident.

Project Evaluation / 10	9–10	7–8	5–6	3–4	1–2
Recording and application of evaluation procedures throughout the design project	Critically evaluates aspects of the PSE throughout its entire development.	Evaluates some aspects of the PSE throughout its entire development.	Judges the success of some aspects of the PSE through stages of its development.	Describes, with little justification, the success of several aspects of the PSE or exhibits evaluation in the PSE's development.	Describes, without justification, the success of an aspect of the PSE or provides some evidence of evaluation in the PSE's development.
Analysis and evaluation of functional and aesthetic aspects of design	Analyses and critically evaluates the functional and aesthetic aspects of the PSE.	Explains the functional and aesthetic aspects of the PSE.	Describes some functional and/or aesthetic aspects of the PSE.	Describes a functional and/or aesthetic aspect of the PSE.	Names a functional or aesthetic aspect of the PSE.
Final evaluation with respect to the project proposal and the project's impact on the individual, society and the environment	Critically evaluates the impact of the PSE on the individual, society and the environment.	Explains the impact of the PSE on the individual, society and the environment.	Describes the impact of the MDP on the individual and/or society and/or the environment or exhibits evidence that the impact on the environment was considered.	Briefly describes the impact of the PSE on the individual and/or society and/or the environment.	Minimal and/or inaccurate description of the impact of the PSE on the individual, society or the environment.
Relationship of the final product, system or environment to the project proposal	Analyses the relationship of the PSE to the criteria for success identified in the project proposal.	Compares the relationship of the PSE to the criteria for success identified in the project proposal.	Checks the PSE against the criteria for success identified in the project proposal, with little or no explanation.	Checks the PSE against some of the criteria for success identified in the project proposal, without explanation.	Does not clearly relate the PSE to the criteria for success identified in the project proposal.

Design and Technology Major Design Project Marking Guidelines

Project Development and Realisation / 35	29–35	22–28	15–21	8–14	1–7
Evidence of creativity - ideas generation, degree of difference and exploration of existing ideas	Demonstrates the substantial application of creativity in the development of the MDP.	Demonstrates application of creativity in the development of the MDP.	Demonstrates some creativity in the development of the MDP.	Provides some evidence of ideas generation and/or exploration of existing ideas.	Provides limited evidence of ideas generation and/or exploration of existing ideas.
Consideration of design factors relevant to the major design project	Analyses a range of design factors relevant to the PSE and applies them.	Describes a range of design factors relevant to the PSE and applies them.	Describes some design factors relevant to the PSE and applies them.	Provides some evidence of design factors, most of which are relevant to the PSE and applies them.	Provides limited evidence of design factors, few of which are relevant to the PSE.
Appropriate research and experimentation of materials, tools, techniques and testing of design solutions	Undertakes, evaluates and applies a range of appropriate research experimentation and design solution testing in the development of the MDP.	Undertakes, evaluates and applies appropriate research, experimentation and design solution testing in the development of the MDP.	Undertakes, evaluates and applies some appropriate research, experimentation and/or design solution testing in the development of the MDP.	Evaluates and/or applies limited appropriate research and/or experimentation and/or design solution testing.	Minimal evidence of appropriate research and/or experimentation and/or design solution testing.
Application of conclusions	Applies conclusions drawn from research and experimentation and design solution testing to the MDP.	Demonstrates some application of conclusions drawn from the research and experimentation and/or design solution testing to the MDP.	Demonstrates some selective application of conclusions drawn from research and/or experimentation and/or design solution testing.	Demonstrates limited application of conclusions drawn from research and/or experimentation and/or design solution testing.	Demonstrates minimal application of conclusions drawn from research and/or experimentation and/or design solution testing.
Identification and justification of ideas and resources used.	Justifies the selection and use of ideas and resources used for the PSE.	Explains the selection and use of ideas and resources used for the PSE.	Describes the selection and use of ideas and/or resources used for the PSE.	Describes some ideas and/or resources used in the PSE.	Lists few ideas and/or resources used in the PSE.
Use of communication and presentation techniques	Succinctly demonstrates a range of appropriate quality communication and presentation techniques.	Demonstrates varied and appropriate communication and presentation techniques in a concise manner.	Demonstrates appropriate communication and presentation techniques.	Demonstrates a limited range of communication and presentation techniques.	Demonstrates minimal communication and presentation techniques.
Evidence and application of practical skills to produce a quality project	Applies a range of high-quality practical skills in the development of the PSE.	Applies a range of sound practical skills in the development of the PSE.	Applies sound practical skills in the development of the PSE.	Applies basic practical skills in the development of the PSE.	Applies minimal practical skills in the development of the PSE.

Applying the guidelines

"Describes …" "Applies …"

Component PROJECT PROPOSAL & PROJECT MANAGEMENT	TEAM NUMBER			Design & Technology ~ 2009	
	15 - 13	12 - 10	9 - 7	6 - 4	3 - 1
Identification and exploration of the need	Identifies and provides a detailed exploration of genuine needs and opportunities, justifying final selection for the development of the MDP	Identifies and provides an exploration of needs and opportunities, in relation to the development of the MDP	States a need with some exploration in relation to the development of the MDP	States a need with limited exploration in relation to the development of the MDP	Need stated without clarity, nor explored in relation to the development of the MDP
Areas of investigation	Describes relevant areas of investigation which relate clearly to the need, and provides direction for further action	Describes some relevant areas of investigation in relation to the need and provides evidence that these were investigated	Identifies areas of investigation in relation to the need, or shows evidence of being investigated	Lists areas of investigation in relation to the need which may not relate to further action, or shows evidence of areas being investigated	Names an area of investigation
Criteria to evaluate success	Establishes and analyses appropriate criteria to evaluate the success of the PSE	Describes appropriate criteria to evaluate the success of the PSE, with little analysis of these criteria	Briefly describes criteria to evaluate the success of the PSE, with no analysis of these criteria	Briefly describes criteria, some of which may be inappropriate to evaluate the success of the PSE	Lists criteria, some of which may be inappropriate to evaluate the success of the PSE
Action, time and finance plans and their application	Formulates and evaluates well-documented action, time and finance plans with clear evidence of their application to the PSE	Formulates action, time and finance plans, and shows some evidence of their application to the PSE	Formulates and applies action and/or time and/or finance plans	Some evidence of the application of action, time or finance planning	Action, time or finance planning not evident

"Analyses …"

Keyword glossary: Know the words!

How are the marks determined?

▸ Each marker uses a check sheet to help determine the level of achievement in relation to the marking guidelines; for the purpose of allocating a mark for each section of the Major Design Project.
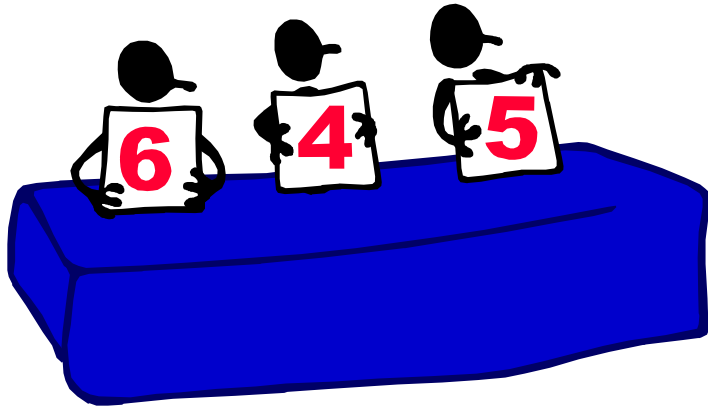
Design and Technology CHECKLIST (to aid the application of the Marking Guidelines)

Team Number		Candidate No.																	
Markers Name																			
Partners Name			Indicators				Indicators				Indicators				Indicators			

Component - Project Proposal & Project Management /15	13-15	10-12	7-9	4-6	1-3	13-15	10-12	7-9	4-6	1-3	13-15	10-12	7-9	4-6	1-3	13-15	10-12	7-9	4-6	1-3
Identification and exploration of the need																				
Areas of investigation																				
Criteria to evaluate success																				
Action, time & finance plans & their application																				
PP&PM /15																				
Partner																				

Component - Project Development & Realisation /35	29-35	22-28	15-21	8-14	1-7	29-35	22-28	15-21	8-14	1-7	29-35	22-28	15-21	8-14	1-7	29-35	22-28	15-21	8-14	1-7
Evidence of creativity - ideas generation, degree of difference & exploration of existing ideas.																				
Consideration of design factors relevant to the Major Design Project.																				
Appropriate research and experimentation of materials, tools, techniques and testing of design solutions.																				
Application of conclusions																				
Identification and justification of ideas and resources used.																				
Use of communication and presentation techniques.																				
Evidence and application of practical skills to produce a quality project.																				
PD&R /35																				
Partner																				

Component - Project Evaluation /10	9-10	7-8	6-5	3-4	1-2	9-10	7-8	6-5	3-4	1-2	9-10	7-8	6-5	3-4	1-2	9-10	7-8	6-5	3-4	1-2
Record and application of evaluation procedures throughout the design project.																				
Analysis and evaluation of functional and aesthetic aspects of design.																				
Final evaluation with respect to the project's impact on the individual, society & the environment.																				
Relationship of the final product, system or environment to the project proposal.																				
Evaluation /10																				
Partner																				

Outdoor Table

Component - Project Proposal & Project Management /15	13-15	10-12	7-9	4-6	1-3	
Identification and exploration of the need	●					Identifies and provides a detailed exploration of a genuine need in relation to the target market and their need for outdoor furniture. Describe relevant areas of investigation which provide some direction for future action. Establishes appropriate criteria, some of which are analysed in relation to the final design success. Documents detailed management plans which have been evaluated and show clear application to MDP.
Areas of investigation	●					
Criteria to evaluate success	●					
Action, time & finance plans & their application	●					
PP&PM /15	**14**					

Component - Project Development & Realisation /35	29-35	22-28	15-21	8-14	1-7	
Evidence of creativity - ideas generation, degree of difference & exploration of existing ideas.	●					Creativity is demonstrated and applied throughout the MDP. Thorough exploration of existing ideas which lead to ideas generation. Critical analysis of a wide range of design factors that are applied to the final design.
Consideration of design factors relevant to the Major Design Project.	●					A range of appropriate and relevant research and experimentation is undertaken and evaluated into design ideas, use of recycled materials and construction techniques. Models of the sliding mechanism for tray has been tested and evaluated.
Appropriate research and experimentation of materials, tools, techniques and testing of design solutions.	●					
Application of conclusions	●					Applies conclusions drawn from research, experimentation and testing undertaken to final design. Source and application of design ideas and resources used for the table justified clearly.
Identification and justification of ideas and resources used.	●					A range of high quality communication methods and practical skills evident throughout MDP.
Use of communication and presentation techniques.	●					
Evidence and application of practical skills to produce a quality project.	●					
PD&R /35	**33**					

Component - Project Evaluation /10	9-10	7-8	6-5	3-4	1-2	
Record and application of evaluation procedures throughout the design project.	●					The project development is critically evaluated throughout including evaluation of management plans, idea generation and research and testing.
Analysis and evaluation of functional and aesthetic aspects of design.	●					Critical analysis is undertaken of functional and aesthetic criteria by both the designer and target market.
Final evaluation with respect to the project's impact on the individual, society & the environment.	●					Critical analysis of the impact of the project upon the individual (student) society (target market) and environment (intended and global) undertaken.
Relationship of the final product, system or environment to the project proposal.	●					Considered analysis of the relationship of the project to the criteria for success is undertaken with evaluation also given by others (target market, experts).
Evaluation /10	**10**					

Maximising your marks?

6 **4** **5**

Go for Gold!!!!

or

10 **10** **10**
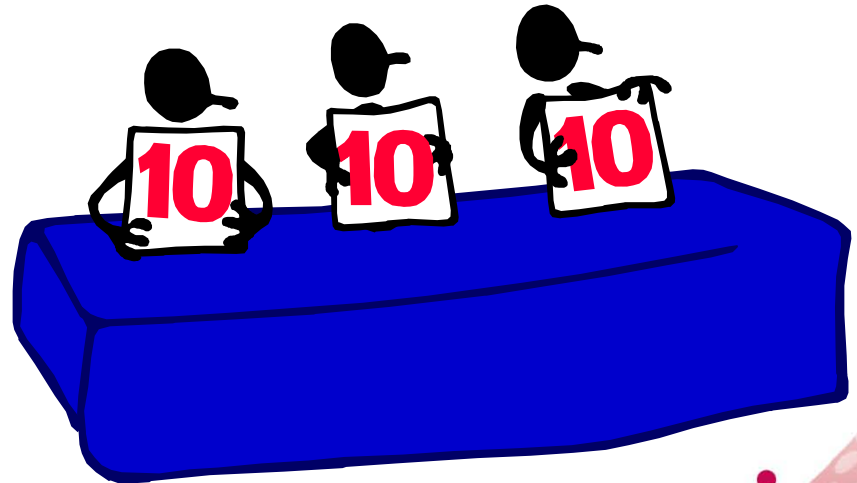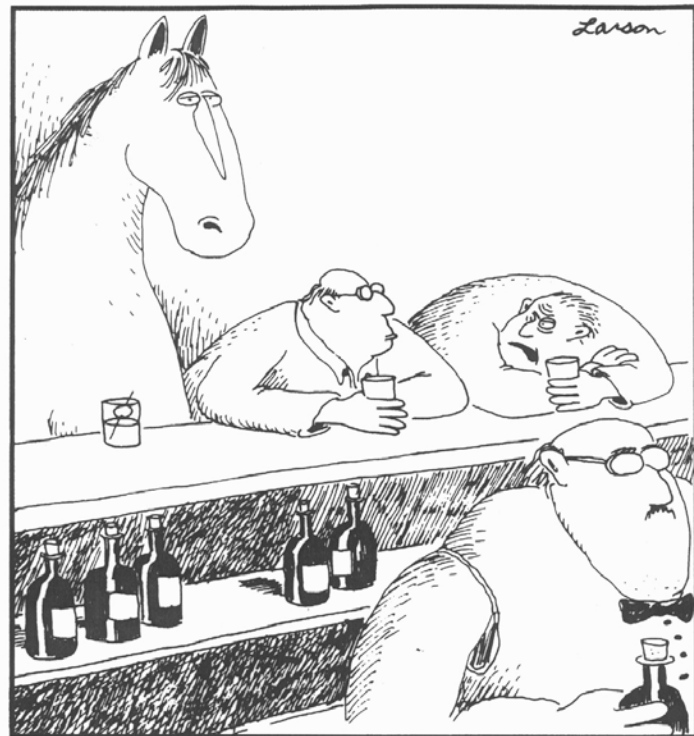
Trust your Teacher !

"Sure—but can you make him drink?"

Show your teacher your design folio on a regular basis to gain feedback.

Success in your MDP is a team effort between you and your teacher.

Your teacher is your MOST valuable resource !

TEAM EFFORT

‣ Many people will eventually be involved, in some way, in the success of your project. These include;

‣ YOU (the student); who will do the project,

‣ your parents/friends; who will support and generally fund the project,

‣ your teacher; who will help facilitate the project,

‣ experts who may assist with and evaluate the project and
‣ finally the HSC examiners who will mark the project.
‣ *They will all contribute in their own way to the success of YOUR Major Design Project.*

KISS

▸ Where possible, *'keep it simple'*. A complicated project is not necessarily a better project. The quality and appropriateness of the design solution is relative to the design brief.

Plan, plan, plan

▸ *Anticipate* the time, action and finances that you will need for you MDP and DOCUMENT this information.

▸ You will not be penalised for deviating from this plan, but evaluating any changes will get you marks.The markers are interested in the decisions you have made and why you made them so tell us!!
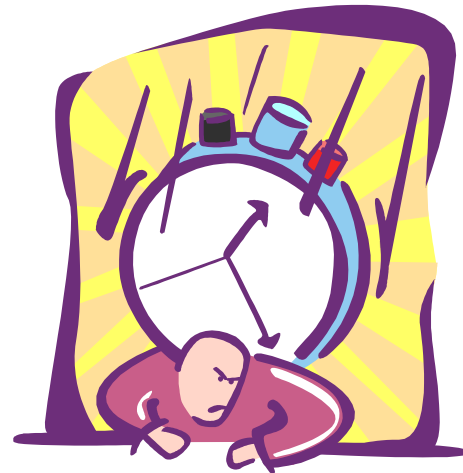
Design Project development

▸ The folio is the means by which a Design Project can be successfully managed.

▸ The development of the folio should occur throughout the designing and producing of the end result and not be something that is created as an afterthought, once the end result is realised.

▸ The evolution and appropriate documentation of this process
will lead to a 'good' MDP

Are you being creative?

- Evidence of creativity, innovation and exploration of existing ideas is sometimes quite subtle in your MDP.

- If you've done something you think is creative or innovative – TELL THE MARKER!!

  - E.g This could be a material you have chosen to work with, new manufacturing techniques you have utilised, or creative methods you have utilised in achieving a successful design project.

Is it relevant?

- ## Consideration of design factors – explore those which relate to YOUR Major Design Project.
  - Refer to the BOS DT syllabus to assess which design factors are relevant to your project.

- ## Experimentation & testing of ideas, materials tools & techniques – make sure these processes are relevant.
  - Ensure you show the markers any of your test pieces, experiments and prototypes and include a brief evaluation of how they have influenced the development and refinement of your design development.

"A picture tells a thousand words"

Photographs tell a story by visual means

Document your journey !!!!

Application of Conclusions

- Show the Marker that you have 'learnt' something from all that research and project development.

    - Remember to use a range of appropriate research methods. This could include primary and secondary research.Tell the marker briefly how the findings of your research will influence the development of your project.

- Use the ideas, material/s, tools, processes and techniques that YOU have determined as being the most appropriate.

Evaluation

▸ In this section, candidates are required to provide evidence of continual evaluation throughout the development and realisation of the Major Design Project. This also includes linking back to the original criteria developed in the Project Proposal and Project Management section to evaluate the success of the project.

▸ It is a good idea to include a photo of your project being used in its intended environment at the end of your design folio and include some feedback from yourself as the designer and your target market.

Showcase your talents

▸ 20 – 30 minutes to

▸ 'show' the marker what you have learnt,

▸ what talents you have and what mark you deserve after a years' work.

▸ Don't short-change yourself!

Tips from the markers!!

- Plan your presentation/setup prior to the markers coming.

- Good presentation of your major design project on the day they are marked, shows the markers you have communicated in an effective manner.

- Include actual samples or photographs of your experiments, tests and prototypes and label these clearly.

- Choose a font and colour that is easy to read.

- Use labelled photographs to communicate throughout your design folio.

- For your folio, remember to Label everything, Explain everything, and Justify everything.
- When the markers leave your school, they are not allowed to pass on any feedback to your teacher.
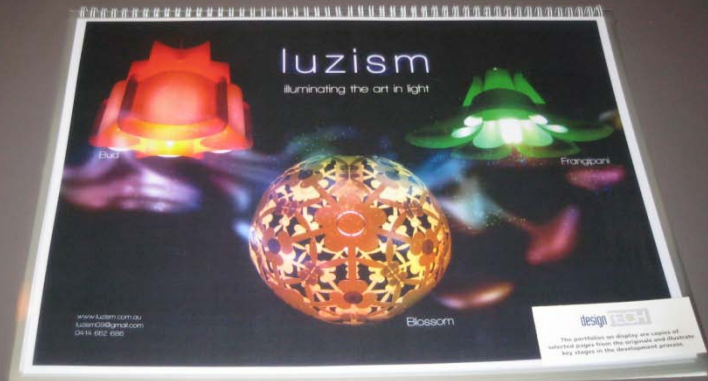
Marking Simulation

Set up display for HSC markers

Marking Simulation

Prototypes on display and clearly labelled

Marking Simulation

Chosen for Designtech 2009 and on display at Powerhouse museum.

Marking Simulation

Example of set up for HSC markers .

QUESTIONS/RESOURCES

▸ *Syllabus, support document, specifications, links to examination notes.*

▸ http://www.boardofstudies.nsw.edu.au/syllabus_hsc/syllabus2000_listd.html

▸ Be aware that the written HSC exam format has changed for 2010.