



National Certificate of Educational Achievement
TAUMATA MĀTAURANGA Ā-MOTU KUA TĀEA

Exemplar for Internal Achievement Standard 91609 Level 3

This exemplar supports assessment against:

Achievement Standard 91609

Undertake project management to support technological practice

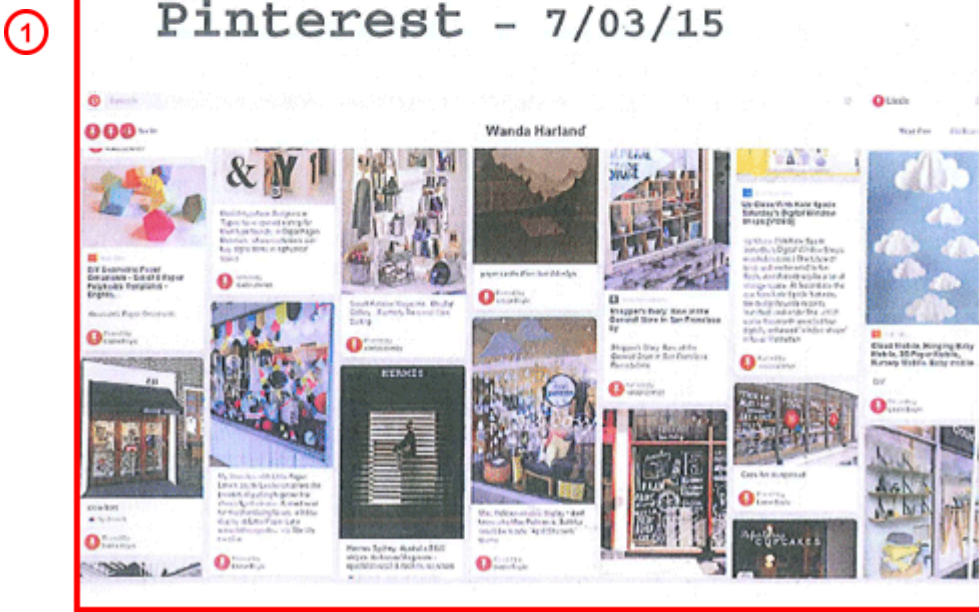
An annotated exemplar is an extract of student evidence, with a commentary, to explain key aspects of the standard. It assists teachers to make assessment judgements at the grade boundaries.

New Zealand Qualifications Authority

To support internal assessment

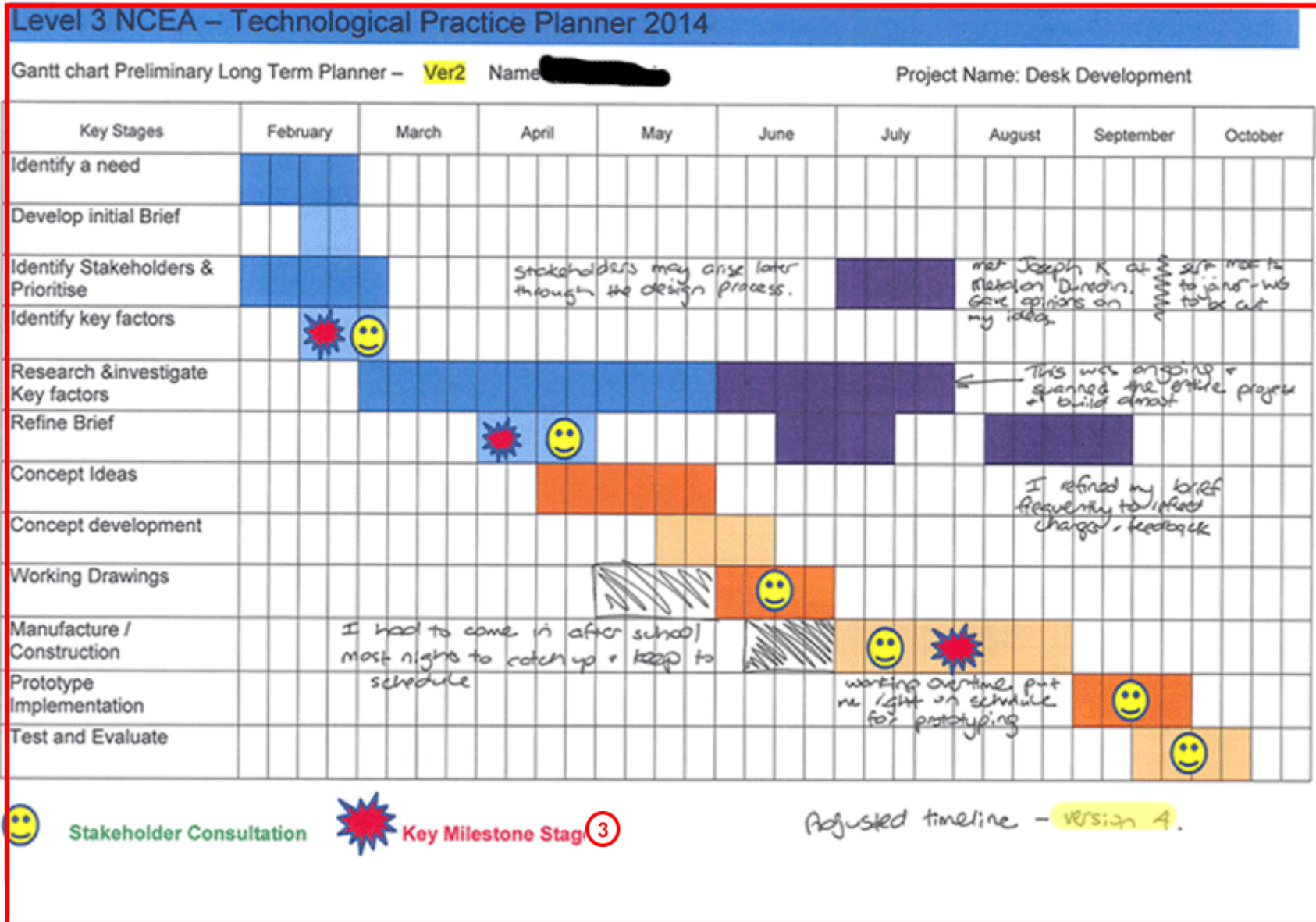
	Grade Boundary: Low Excellence
1.	<p>For Excellence, the student needs to undertake efficient project management to support technological practice.</p> <p>This involves optimising time and material use to ensure completion of an outcome, through ongoing reflection of the practice undertaken, and revision of project scheduling.</p> <p>This student has undertaken project management to support the development of a shop window for a retailer exploring visual merchandising, product development, graphic design and branding.</p> <p>The student has provided evidence of using tools to optimise time and material (1) use to ensure completion of an outcome. Ongoing reflection of practice undertaken is seen in the critical review (2). Revision of project scheduling has been done in an ongoing manner (not exemplified).</p> <p>For a more secure Excellence, the student could undergo further revision of the project schedule.</p>

Project Management tool: Google Calendar		Student 1: Low Excellence
Helpful (to achieving the objective)		NZQA Intended for teacher use only
Harmful (to achieving the objective)		College Design Project
<p>Strengths</p> <ul style="list-style-type: none"> It connects directly to your Gmail account – accesses your contacts and dates / appointments connected to your email. Can be shared with others, ideal for group work Reminders and alerts can be set to each entry Get reminders sent to you by text 	<p>Weaknesses:</p> <ul style="list-style-type: none"> Does not sync well with any apple calendars Only an android app – not convenient as some group members have apple No list function – hard to tell if you have completed the day's tasks. Can't add subtasks. 	<p>1</p> <p>to sales -</p> <p>Hi, my name is [redacted] and I am a year 13 student from [redacted] college. Currently in design we are doing a school project where we design a shop window for a retailer. My group and I were wondering if we could do so with your shiop. I have attached a letter from my Teacher with further information.</p> <p>Yours sincerely, [redacted]</p>
<p>Opportunities</p> <ul style="list-style-type: none"> Complements other google software Has similar format to my written diary so easy to transfer information in same layout. Online product, so likely to improve 	<p>Threats</p> <ul style="list-style-type: none"> The google account I use is the school google account. If the school system goes down, then I dont' have access to the project calendar If there is no access to internet, I can't get access to the calendar or any information. 	
<p>Summary: I will not be using google calendar as I do not believe it is necessary for me to use as I will be using my written diary to note down important dates and can also enter these dates into Trello which has a great time managemet applications. Therefore I will be sent alerts for when tasks need to be completed by which is what my written diary lacked.</p>		



PROJECT CRITICAL REVIEW POINT				
Date: 10/03/15		Critical review number: 2		
	Key milestones this week	Positives	Problems actual/anticipated	Next steps
Time frame	• We are up to date with all of our book work	• We have begun our Developments, will be able to complete them by the end of term.	• We spent longer on deciding what concept to develop than anticipated.	Complete development end of the week.
Materials	We decided what each aspect of our shop window will be made out of, eg 3-D cardboard.	• We have access to 3-D Printer - decided to use this • Decided the colour of our vinyl	• It will be difficult to find the exact wall paper or paint colors we want for the walls.	Begin to gather all materials in preparation for construction next week.
Tools	• Finally getting colouring Pencils to finish our development, in the correct colours.	• Starting to use illustrator to begin to develop our vinyl stickers.		• Further construction next week • Do final vinyl with 3-D printer.
Equipment	Positive	Minus		Improvement
Research information	• Finding the wall paper design/inspiration for our wall paper development.	Always referring back to our research for information and also being able to draw new ideas from this.	Finding a suitable option/wall paper to cover the back wall of the creche.	Further more type typography version
Stakeholders			Client hasn't emailed through the jpeg file of the logo	• Ask client to re logo • Send through our design
Specialist knowledge/skills	• Trying out our new Illustrator Skills we learnt from Ethan.	• Had a clear idea and vision when we began our Illustrator developments.		
Project management tools	• Begun to use trello for the first time.	• Pinterest was very efficient and effective while doing our research - all could add to same board.	• We have not accessed our trello account/used trello.	
Teacher sign off:	[Redacted]			

	Grade Boundary: High Merit
2.	<p>For Merit, the student needs to undertake effective project management to support technological practice.</p> <p>This involves:</p> <ul style="list-style-type: none">• demonstrating project scheduling informed by a critical analysis of existing practices in project management• reviewing progress at critical review points to revise and/or confirm project scheduling to ensure completion of an outcome. <p>This student has undertaken project management that supported the development of home workstation.</p> <p>The student has provided evidence of project scheduling (1) informed by a critical analysis of existing practices in project management (2). The progress has been reviewed at critical view points and has been revised to ensure completion of an outcome (3).</p> <p>To reach Excellence, the student could optimise time and material use to ensure the completion of an outcome by further effective use of planning tools.</p>



	Grade Boundary: Low Merit
3.	<p>For Merit, the student needs to undertake effective project management to support technological practice.</p> <p>This involves:</p> <ul style="list-style-type: none">• demonstrating project scheduling informed by a critical analysis of existing practices in project management• reviewing progress at critical review points to revise and/or confirm project scheduling to ensure completion of an outcome. <p>This student has undertaken project management to support the development of a shop window exploring visual merchandising, product development, graphic design and branding.</p> <p>The student has demonstrated project scheduling (not shown here) informed by critical analysis (1) of existing practices in project management (2).</p> <p>Evidence is provided of reviewing progress at critical review points to revise project scheduling to ensure completion of an outcome (3).</p> <p>For a more secure Merit, the student could review progress in further depth at critical review points to revise project scheduling to ensure completion of an outcome.</p>

Student 3: Low Merit
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project management is to use tools, such as trello & pinterest. These tools can help you and your group. save time and keep you organized to keep you up to date with your project.

_____ Vs. _____ (2)

*What are the pros of each project management tools?

_____ and _____ both use trello and pinterest to give ideas and inspiration to them. They also both have weekly meetings to plan the week ahead and what they are to do. They both plan their time well and they set goals.

*What are the cons of the companys project management tools?

They both have one set tool that they use wether it is trello or pinterest.

* Which do you feel most effective, why?

I feel like _____ is most effective because they are better with their communication skills they have more weekly meetings and in the end they get a better outcome.

*What was the most important advice you got for both _____ and _____?

Communication skills are important, but not to much.

What advice of information will you use to help your project?

know to to do, plan, set dates, goals, be organized.

As a result of talking with both _____ and _____, I can see that I should consider Trello and Pinterest to help coordinate my project.

Analysis: (1)

Trello has:

- easy layout
- appealing
- organising
- free to use

Pinterest:

- simple to use
- appealing
- can be used on a mobile app
- everyone can use and see your pins

Decision:

I am going to use a good calendar app that I can use anywhere. It will keep me organised and gives alarms for when your things are due. (1)

I will also use Trello which can be used on a Mobile app. It will keep me organised and can be set up in different files and pictures and fonts. I can pin with my group

Pinterest is the other project management tool. I will be able to use it on my mobile app and share with my group. I can pin anytime I want. It will help me get organised and I will be able to save my pins.

PROJECT CRITICAL REVIEW POINT				
Date: 22.03.2015		Critical review number: 3 3		
	Key milestones this week	Positives	Problems actual/anticipated	Next steps
Time frame	<ul style="list-style-type: none"> • paint crate • vinyl sticker 	Can start painting crate and then adding the lights and mugs on.		
Materials	<ul style="list-style-type: none"> • string • more cups 	Can start hanging the cups on crate once the crate is painted.	lights and small vinyl cups are hard to find	
Tools	<ul style="list-style-type: none"> • illustrator 			Measuring tapes, screw drivers.
Equipment	<ul style="list-style-type: none"> • finish final design. • paint brushes 	can start start painting the crate		Book vinyl cutter
Research information	<ul style="list-style-type: none"> • add more information about the crate 	more ideas		
Stakeholders	<ul style="list-style-type: none"> • Milk crate • Mrs Watson 	can help with crate		
Specialist knowledge/skills	Worked on illustrator. → little knowledge		It took longer than I expected. A program to learn!	Will need to learn how to use vinyl cutter.
Project management tools	<ul style="list-style-type: none"> • add more info photos and screen shot. 			
Teacher sign off:				

	Grade Boundary: High Achieved
4.	<p>For Achieved, the student needs to undertake project management to support technological practice.</p> <p>This involves:</p> <ul style="list-style-type: none"> • establishing a project schedule reflective of the physical and social environment where the outcome is to be developed and implemented, informed by existing practices in project management. • implementing the project schedule to coordinate goals, planning tools, resources and progress review points in a coherent manner to ensure completion of an outcome. <p>This student has undertaken project management to support the development of a website and corresponding database for a school tuck shop.</p> <p>The student has established a project schedule (1) reflective of the physical and social environment where the outcome is to be developed (2) and implemented (not shown here). The student's practice has been informed by existing practices in project management (3).</p> <p>The student has implemented the project schedule to coordinate goals (4), planning tools (5), resources (not shown here), in a coherent manner to ensure the completion of an outcome.</p> <p>To reach Merit, the student would need to provide evidence of revising the project scheduling or confirming that the schedule is appropriate to ensure the completion of the outcome, and providing further evidence of analysis of existing practices in project management to inform project scheduling.</p>

Initial Project Plan 1

Name	Duration	Resources
Project Start	0d?	
Researching	11d?	
Write up initial brief	5d?	Me
Brainstorm ideas about the topic	1d?	Me
Get deeper into research - design of websites/ datatbas	3d?	Me,Client,Stakeholder 1
Refine the brief	2d?	Me,Client
Critical Review - refined Brief	0d?	Me,Client,Stakeholder 1
Planning	4d?	
Begin to develop design	1d?	Me
Fonts	1d?	Me,Stakeholder 1

Student 4: High Achieved
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Computer laptop 2

Computer room laptop

Actual Project Plan 4

Name	Duration	% Complete	Resources
Project Start	0d?	0%	
Researching	11d?	100%	
Write up initial brief	5d?	100%	Me
Brainstorm Ideas about the topic	1d?	100%	Me
Get deeper into research - design of websites/ datatbas	3d?	100%	Me,Client,Stakeholder 1
Refine the brief	2d?	100%	Me,Client
Critical Review - refined Brief	0d?	100%	Me,Client,Stakeholder 1
Planning	4d?	25%	
Begin to develop design	1d?	100%	Me
Fonts	1d?	0%	Me,Stakeholder 1
Colour Scheme	2d?	0%	Me,Stakeholder 1
Critical Review - Colours/Fonts	0d?	0%	Me,Client,Stakeholder 1

Ticked means done

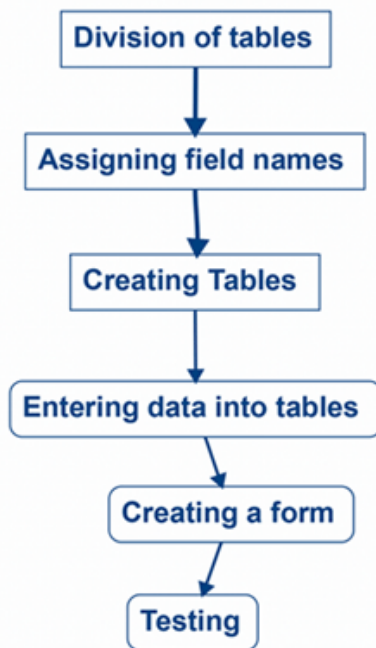
Blue line means completed. Pink means on critical path

Planning Tools 5

Trello, Ganttter, Diary, Dropbox, (for stakeholder and client consultaitons) - need to analyse these to decide which ones will help me meet my deadline

Steps in the database design phase

5



I used this when I was thinking about how I would go about my database design.

3

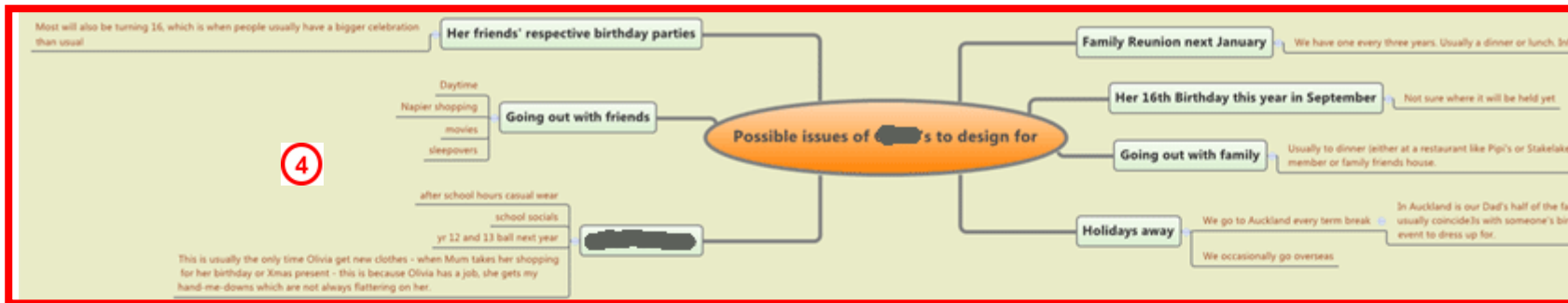
We visited the xxxx company to find out how they do project management. They use a corporate subscription to dropbox to manage their project files. They also used little figures (toys) that represent different parts of their software program. When someone wants to work on a particular part they get that little figure and put it on their desk so everyone knows that they are working on that part.

Since it is just me working on this, I did not need to worry about setting this up.

20/07	On google drawings I completed a collage of a few pictures of canteens. These images were sources of royalty free websites such as Istock.com. This enabled me to have an overview of some existing ideas
21/07	I have sourced some existing websites that sell food as a part of their services. By taking a snapshot of these and then hopefully commenting on them tomorrow I will be able to gain a better idea of which attributes work and which ones do not. The next step in the coming days is to continue work on the research phase of my design including doing some sketches and mock up layouts. These will have to be verified with my client.
22/07	I have the rest of this week to work on the research phase of my design until I move onto planning. This means that I must have some sketches completed before I begin the in depth planning of my design so I have something to go off. Getting these sketches done is critical.
23/07	I have spent this day as sort of a 'refresher, fixing typos, printing things off and making small minute changes to wording. I will update my visual diary where I keep all my progress and information. The rest of this week will be spent completing research and as mentioned before, some mockup sketches.

	Grade Boundary: Low Achieved
.	<p>For Achieved, the student needs to undertake project management to support technological practice.</p> <p>This involves:</p> <ul style="list-style-type: none"> • establishing a project schedule reflective of the physical and social environment where the outcome is to be developed and implemented, informed by existing practices in project management • implementing the project schedule to coordinate goals, planning tools, resources and progress review points in a coherent manner to ensure completion of an outcome. <p>This student has undertaken project management to support the development of a textiles project to make a garment suitable for her client to wear.</p> <p>The student has provided evidence of establishing a project schedule (1) reflective of the physical and social environment where the outcome is to be developed and implemented (not shown here), informed by existing practices in project management (2).</p> <p>Evidence is seen of how the student has implemented the project schedule to coordinate goals (3), planning tools used (4), resources and progress review points (5) in a coherent manner to ensure completion of an outcome.</p> <p>For a more secure Achieved, the student would need to show evidence of the implementing of the project schedule to achieve goals rather than producing just an initial plan. Also, the student could show evidence of revising their project at critical review points.</p>




Student 5: Low Achieved
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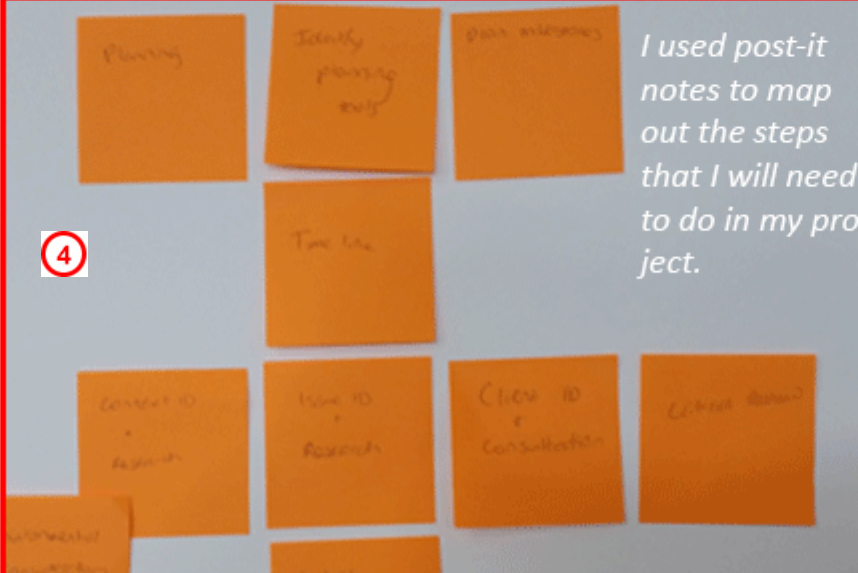


	15-Mar	22-Mar	29-Mar	5-Apr	12-Apr	19-Apr	26-Apr	3-May	10-May	17-May
Task 1										
Task 2										
Task 3				Critical review point: done 29/3						
Task 4										
Task 5										
Task 6										

- Task One:**
- Select and justify planning tools
 - Plan each milestone stage
 - Organise a timeline
- Task Two:**
- Brainstorm possible clients
 - Identify an authentic issue
 - Interview stakeholders & make up profiles
 - Explore environment in which the issue exists
- Task Three:**
- Identify needs and opportunities and constraints
 - Analyse research to this point
 - Identify Stakeholder, environment and resources
 - Write initial brief and specifications
 - Critical review point - initial brief
- Task Four:**
- Research existing solutions and the work of practising technologists
 - Analyse existing solutions with stakeholder feedback
 - Sketch and annotate initial concepts and get stakeholder feedback
- Task Five:**
- Refine brief and specifications for the conceptual design
 - Develop one or two concepts through functional modelling and get stakeholder feedback
 - Critical Review point - review refined brief
- Task six:** Write final brief and specifications for conceptual design
- Evaluate the conceptual designs with stakeholders - fitness for purpose in the broadest sense - against the final brief.
 - Critical Review point - review final brief

Analysis of Planning tools 4

	Helpful	Harmful
Diary	<p> Strengths </p> <ul style="list-style-type: none"> Can do on paper  everyone can understand easy to get started - no training doesn't rely on technology to use/maintain 	<p> Weakness </p> <ul style="list-style-type: none"> not succinct boring not interactive doesn't allow for changing not shared so can't use easily for groups
diary	<p> Opportunities </p> <ul style="list-style-type: none"> could be good for quick sketches, 	<p> Threats </p> <ul style="list-style-type: none"> if photocopy the pages, others may not have the most recent end up using wrong version without knowing could get lost - no back up



I used post-it notes to map out the steps that I will need to do in my project.

4

Task	Starting Date	Intended date of completion
Key decisions I have made recently:		I have made these because:
Next I am going to:		I am going to do this because:
Resources I will need to use:		People I will need to contact:

4

When Mrs [redacted] from [redacted] textiles came to talk to us, she told us about how they use a gantt chart to run their projects. She said a Gantt chart provides a graphical illustration of a schedule that helps her plan, coordinate, and track specific tools in a project. She thinks it is really important to do well at the beginning and through

2

	Grade Boundary: High Not Achieved
6.	<p>For Achieved, the student needs to undertake project management to support technological practice.</p> <p>This involves:</p> <ul style="list-style-type: none"> • establishing a project schedule reflective of the physical and social environment where the outcome is to be developed and implemented, informed by existing practices in project management. • implementing the project schedule to coordinate goals, planning tools, resources and progress review points in a coherent manner to ensure completion of an outcome. <p>This student has undertaken project management to support the development of an appropriate garment to be worn to a formal function during a medical conference.</p> <p>The project schedule (1), that is reflective of the physical (2) and social environment (not exemplified) where the outcome is to be developed (2) and implemented, has been established. The student has provided evidence of being informed by existing practices in project management (3).</p> <p>The project schedule to co-ordinate goals has been implemented. Planning tools (4), resources (5) and progress review points (6) in a coherent manner to ensure the completion of an outcome have been implemented.</p> <p>To reach Achieved, the student could provide evidence that the project plan supported the technological practice by showing the updates of actual progress against the planned progress, and that their practices were informed by existing practices in project management.</p>

Student 6: High Not Achieved

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Page 2 of initial Project Plan

1

	12-28Feb	19-25 Feb	26 Feb - 4 5-11 Mar	12-18 Mar	19-25 Mar	26-Mar 1 A	2-8 Apr	9-15 Apr	16-22 Apr
8. Practising technologist									
9. Further Research									
a) Trends									
b) Design and technological principles									
c) Existing designers and solutions									
10. Initial conceptual ideas									
a) drawings									
b) Stakeholder feedback									
11. Development									
a) further research of details									
b) materials research and possible choices.									

- phase
- tests
- ongoing
- time on computer
- actual

Planning

23rd February

Allocation of time for each aspect of my conceptual design project (see timeline) - this is part of project management which is vital to the success of my final solution. To base my project around the issue that my Dad has suitable clothing to wear to a doctors conference in Wellington in September. I have decided to plan day by day, in order to achieve more with my time. I will evaluate the effectiveness of this, as the usefulness of planning tools are vital to the success of the project.

Diary Planning Tool
This is one of the tools I used. A diary of the actions.

4

Monday 5th March

To base my project around a Victorian Theme. The theme is a significant aspect of the process as it influences the aesthetics of the final solution. I have decided to use the Victorian era as an influence because I am interested in Victorian fashion + society, because my client is also interested in aspects of Victorian culture, such as art + music. The Victorian theme is also apt because Wellington City has a lot of Victorian sculptures and gardens.

Resources

5

- client time ($\frac{1}{2}$ hour per week) - ongoing
- textiles room (4 hrs per week) - ongoing
- computer - drawing (10 hrs) through design phase
- woollen materials - samples
- cotton fabric for toile
- final woollen material for outcome

3

Consultation with expert 17th March
Consulted Mrs King, project manager at ~~XXXXXX~~ Textiles Ltd
She is a costume designer and gave me very useful information about how things are done in the fashion design industry. I learned from her the importance of having a plan and sticking to it. She uses post-it notes on her desk to remind her of the jobs she has to do. She also has a big to-do list.

Evaluation of Planning 31/3 (31st March)

My planning so far has proven to be effective, as I have been able to manage my time effectively, to prioritise and remember tasks, and to complete in an efficient way, so I had no reason to change my method or frequency of planning. This may change when it comes to my one off solution.

6

what I need to do: 2/4/2013 2nd April

- Plan questions for stakeholder feedback
- Research the physical + social aspects of the location - which will effect the function + aesthetics of the prototype