# Wairarapa TOD TECHNOLOGY Workshop

- Monday 31<sup>st</sup> July
- Stephanie O'Sullivan | LSA/Interim Technology LAL
- Hamish Johnston | National Chair TENZ

Te Tāhuhu o te Mātauranga Ministry of Education

Recognition and thanks to Pip Osborne NIF Technology for our ongoing sharing of resources and collaboration  $\bigcirc$ 

PLEASE NOTE: This is a point in time document and is subject to updates.





# **Outline for the sessions**

9.40 – 10	Welcome Whakawhanaungatanga
10 - 10.20	Key messages
Intro and kupu 10.30 – 11.00 Design brief 11.00- 12.00 Share 12.00 – 12.15	Mātauranga Māori
• 12.15 - 1	Lunch
• 1 – 1.15	Resources
<ul> <li>Intro 1.15 – 1.30</li> <li>Planning 1.30 – 2.30</li> </ul>	Programme Planning
• 2.40 – 3.00	Farewell

WIFI

- Waicol-BOYD
- Username: W.guest
- Password: CastlePoint321







## 

### Ko Malverns te Maunga



Ko Severn te awa





Ko O'Sullivan te iwi whānau







### .....Ko Steph tōku ignoa



# Who am I?

- Ko Aoraki te māunga
- Ko Rakia te awa
- Ko Johnston te iwi whānau
- Nō Waitaha ahau
- Ko Hamish tōku ingoa

National Chair TENZ

Digital Technologies Teacher

PPTA Waitaha Canterbury Regional Secretary

Kaiapoi High School Marketing Team Lead, Assistant Head of Faculty Technology, & Transition Data Coordinator

> Wairarapa TOD Workshop





- Name
- School
- Subject
- If you were an ice cream, what ice cream would you be today and why?







# The gold is in the conversation.....

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\*Assessment Centred
\*Over Assessed
\*Fragmented Learning
\*Unclear progression
\*Uncertain pathways

FUTURE FUTURE

\*Learning Centred
\*Less Assessment
\*Coherent Learning
\*Clearer Progression
\*Open pathways

# **NCEA Change Package**



Through the Review of Achievement Standards, the following products are created:

Each of these materials are designed to support the delivery of your courses

Explaining the new NCEA materials

Learning Matrix
Teaching and Learning Guide
T
Course Outlines
Internal Assessment Activities
Conditions of Assessment
External Assessment Specifications
Achievement Standards



# **NZC NCEA Materials: Definitions and Purpose**

### NCEA.EDUCATION.GOVT.NZ

To find these materials for your own subject, visit the NZC subjects page, select your subject and click on the relevant tab.

### LEARNING TAB

### What the Subject is About

- » Explains the subject's broad context and direction of learning.
- » Unpacks, outlines the meaning of, and connection between, the Big Ideas and Significant Learning, which together form the Learning Matrix.
- » Includes connections to the Key Competencies and other subjects and learning areas.
- Describes the capabilities and knowledge the subject develops to support future pathways for akonga.

### Learning Matrix

- » Describes the learning that matters for the subject.
- » Contains the relevant Learning Area's whakatauki or whakatauaki, a subject's Big Ideas, and Significant Learning. Whakatauāki" is similar to a whakatauki, except that for whakatauāki the author, place of origin, and intended audience is known.
- Informs the learning that can be assessed by Achievement Standards.
- » Aims to include all the Significant Learning in a course, however, some learning will be explored in more depth than others.
- Clarifies progressions in the key subject-specific concepts, content and capabilities across applicable NCEA Levels 1.2 and 3.

### Sample Course Outlines

- » Outlines how a year-long course could be developed using the subject's Significant Learning, aligned to how the learning contributes to Achievement Standards.
- Indicative only and do not mandate any particular context, sequence or approach.

### ASSESSMENT TAB

### Achievement Standards

Conditions of Assessment

assessment may look like in practice.

Merit and Excellence.

additional teacher resources and guidance.

30

internal Achievement Standards.

- credits towards certification.
- determine whether the standard has been met.

### Unpacking the Standard

- » Describes the purpose and intent of, and provides further depth and detail, on the Achievement Standard.
- » Describes how courses might include opportunities for assessment.

### EXTERNAL ASSESSMENT

### External Assessment Specifications

Clickwing Matrix

- Describes how external assessments are implemented. including timing, credits, format, and conditions.
- Include other additional information relevant to implementation.

### Supporting Information

» External assessment activities and other exemplars from previous pilot years.



### **TEACHING TAB**

- Describes what akonga need to know or be able to do in order to gain
- Provides the criteria against which akonga evidence is assessed to

INTERNAL ASSESSMENT

» Outline the general parameters and requirements for assessment against

» Provided for each internal Achievement Standard, to exemplify what the

Includes activity instructions and guidance for akonga. May include

Exemplify what the assessment of the Standard may look like at Achieved,

Assessment Activities and Schedules

... D - ( 9 NCEA Educatio

**Digital Technologies** 

What is Digital Technologies about?

# Course endorsement

- In 2024 subject endorsement is replaced by course endorsement
- A course is made up of a programme of learning through which assessment takes place.
- Candidates are assessed against the evidence they provide to meet the Achievement Standard criteria.
- Achievement standards can be from different subjects/learning areas
- A course with internals only will NOT get endorsed including Achieved
- No change to the current guide: to achieve course endorsement ākonga will need to achieve 14 or more credits
  - The 14 credits must include at least 3 internal and at least 3 external credits
- There are NO carry over credits into level 2 or 3 BUT students will need to have the Lit/Num Corequisites to be awarded any level of NCEA
- Any further questions refer to your Principles Nominee



# Explanatory Note 2 (EN2) information



For some Achievement Standards evidence against EN2 is a requirement for achievement.

You will know if EN2 must be included as part of the assessment evidence if EN2 begins with the phrase:

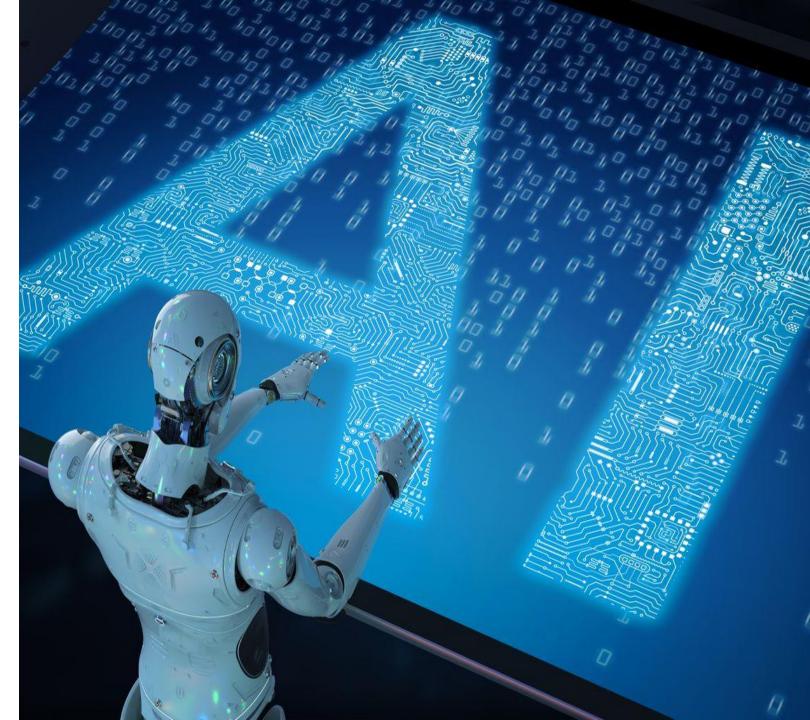
# 'As part of the evidence provided, students must include discussion of/on....'

DT	AS 92006,AS 92007
DVC	AS 9200,
MPT	AS 92014

- This format for EN2:
- introduces a requirement for evidence to be produced,
- the level or quality is not specified or limited, i.e., the evidence is not directly linked to A, M, or E
- and only needs to be evident to achieve the Standard

# Artificial Intelligence

- NZQA has information available for <u>teachers</u> and <u>Principals' Nominees</u> around credible assessment and authenticity.
- A new Authenticity online learning module, Tōku Reo Tōku Mahi, will be published in the next few weeks on <u>Pūtake</u> and it will include strategies to address Al evidence.





# Changes to timelines

- The new Level 1 achievement standards will be fully implemented in 2024 as planned.
- Level 2 will be implemented in 2026 instead of 2025.
- Level 3 will be implemented in 2027 instead of 2026.
- The NCEA co-requisite for literacy, numeracy, te reo matatini and pāngarau will be introduced in 2024.
- During 2024 and 2025, learners will be able to meet the 20-credit co-requisite through achieving either the new literacy and numeracy, te reo matatini and pāngarau standards or gaining 20 credits from a small list of literacy- and numeracy-rich standards in English, Mathematics & Statistics, Te Reo Māori, and Pāngarau.



Level 1 set them up with a broad foundational knowledge Students are a lot more prepared for the existing Level 2 following their pilot year experience. The step up here is not so big, and students have been able to adapt quite quickly.

Ākonga have done tech practice
 at level 1, therefore they carry on
 doing tech practice at level 2 –
 same as before.

Really impressed with how they are coping

Ākonga are more independent than in previous years. Ākonga have found Level2 a little bit easier than usual.

It's not new, the sustainability external fits well with the Piloted 1.3.

We have had the highest ever retention into Year 12.

They are coping with Level 2 way better than they had before I've rewritten Level 2 to meet the requirements, however, the approach is the same as the Level 1 Pilot.

The exams changed kids in a way not to be expected before – it gave mana to the subject.

> As we start with new concepts the students haven't noticed any difference or had any difficulties in transitioning.

The best Year 12 class I have ever taught!

Everything was better after the Pilot, so I wanted to rewrite Level 2 – the change is exciting, kids are more independent they are instinctively experimenting and playing

temahau.govt.nz

# In summary for **2024**:

- The new NCEA Level 1 Achievement Standards will be **fully implemented**.
- NCEA Level 1 will reduce in size from an 80-credit qualification to become a new 60-credit qualification
- The literacy and numeracy | te reo matatini me te pāngarau co-requisite, which sits outside of the new NCEA qualification, will become mandatory.
- Learners will only be awarded NCEA Level 1 once they have met the 20credit literacy and numeracy | te reo matatini me te pāngarau co-requisite.





# Exemplars



Selected and published by NZQA



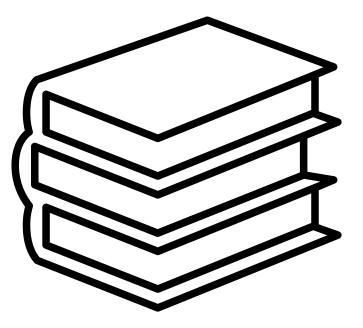
Constraints on what can be published



Student permissions are required



Potential exemplars are being investigated





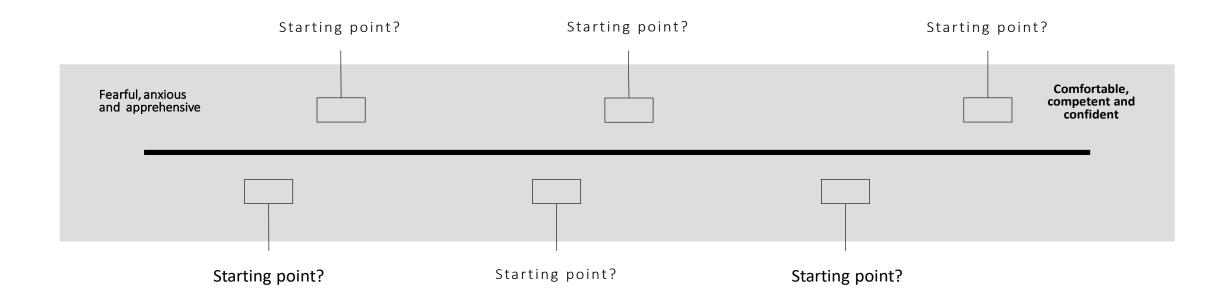
temahau.govt.nz





## Mātauranga Māori journey

- it doesn't matter where we start it's first step that matters





temahau.govt.nz

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# Mana örite mö te Mātauranga Māori Change 2



# Equal status for Mātauranga Māori in NCEA

- Incorporate Mātaruanga Māori in the graduate profile
- Equal support for ākonga Maori
- Equal status for Mātaruanga Māori
- Te ao Māori pathways are acknowledged and supported
- Having Māori-centered contexts for exemplars and assessment resources (eg, local iwi history).
- Designing more inclusive standards and assessment resources that allow for diverse cultural perspectives on what's important (eg, considering community or hapū impact, not just individual user needs)
- Build teacher capability.



• Explore the connection between kupu Māori their meaning and the Teaching/Learning within your own context.

- One Māori kupu per sheet
- 2 3 minutes per group unpacking the kupu
- Pass the sheet to the next table
- Spend 2-3 minutes unpacking the kupu
- Feedback from groups
- Take some photos!



A Māori Language Dictionary of Technology Hangarau i roto i Te Marautanga o Aotearoa

Te Reo Hangarau

Online Kupu: Paekupu temahau.govt.nz



# **Sharing experiences**

• Explorations in Mātauranga Māori.



"You can take inspiration from a culture, or you can just take from a culture" Dr Johnson Witehira

# E Hina e! E Hine e! Mana Waahine Maaori/Maoli of Past, Present and Future



### 14 September 2019 - 10 November 2021

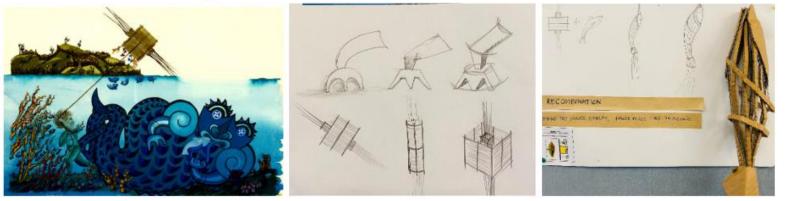
### Free entry

*E Hina e! E Hine e!* explores the contemporary relevance of female Maaori and Kanaka Maoli (Native Hawaiian) akua/atua (ancestors). Focusing on our profound connections, and told through contemporary and traditional taonga (treasures), oratory, and visual storytelling, this exhibition celebrates the female essence.

We honour ngaa atua/akua waahine, the divine feminine, embodied in whenua/'āina (land), moana (ocean), wai (water), and ngaai tipu, ngaai kiirehe (flora and fauna), to emphasize the importance of mana waahine from time immemorial. Featuring female voices (koorero/mo'olelo) of waahine whom anthropologists and historians omitted from mainstream texts and resources, we seek to restore gender complementarity and balance. The reclamation of the centrality of waahine/women is timely, because presenting (her) stories that manifest in our natural environment illuminates a pathway toward a more sustainable future, imbued with relationship.

"Students visited Waikato Museum exhibition in Māori legends and imagery"

# design brief furniture design



brief

You are required to design a piece of furniture for your Tiny House inspired by the work of an influential designer with your design idea starting from Maaori myth or Local iwi korero.



education.govt.nz



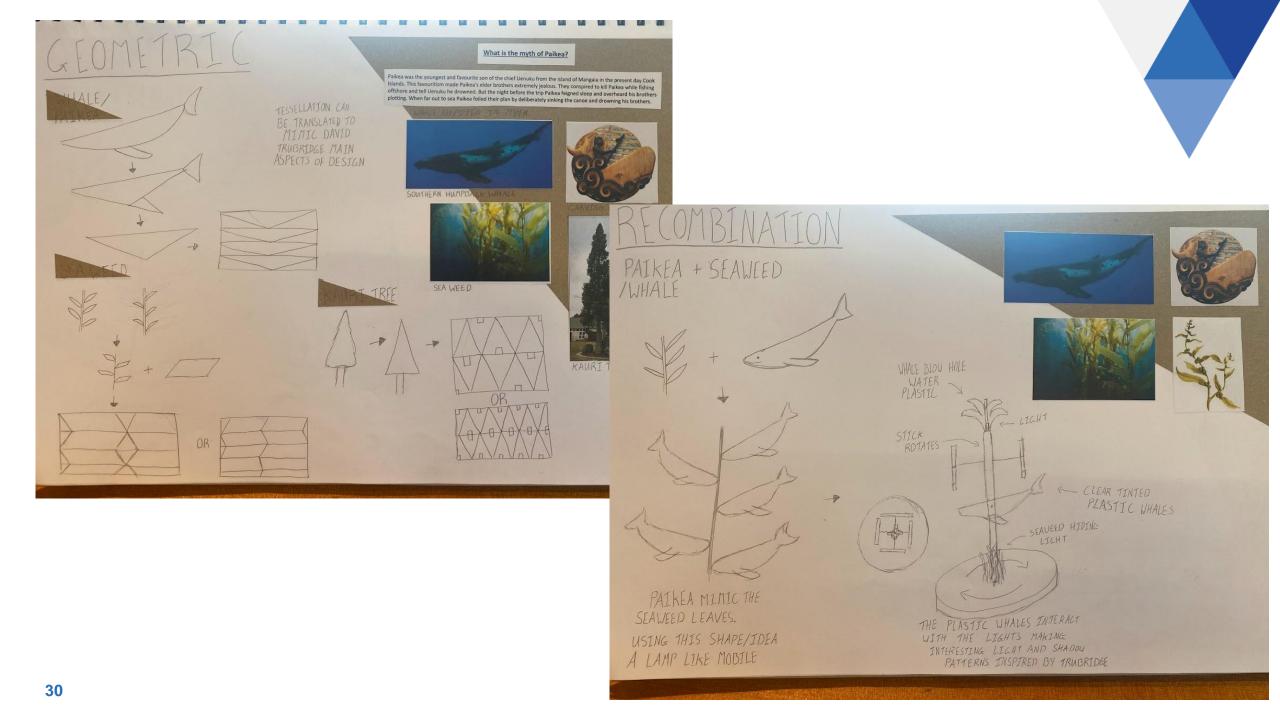
# Design ideas – Māori Legend

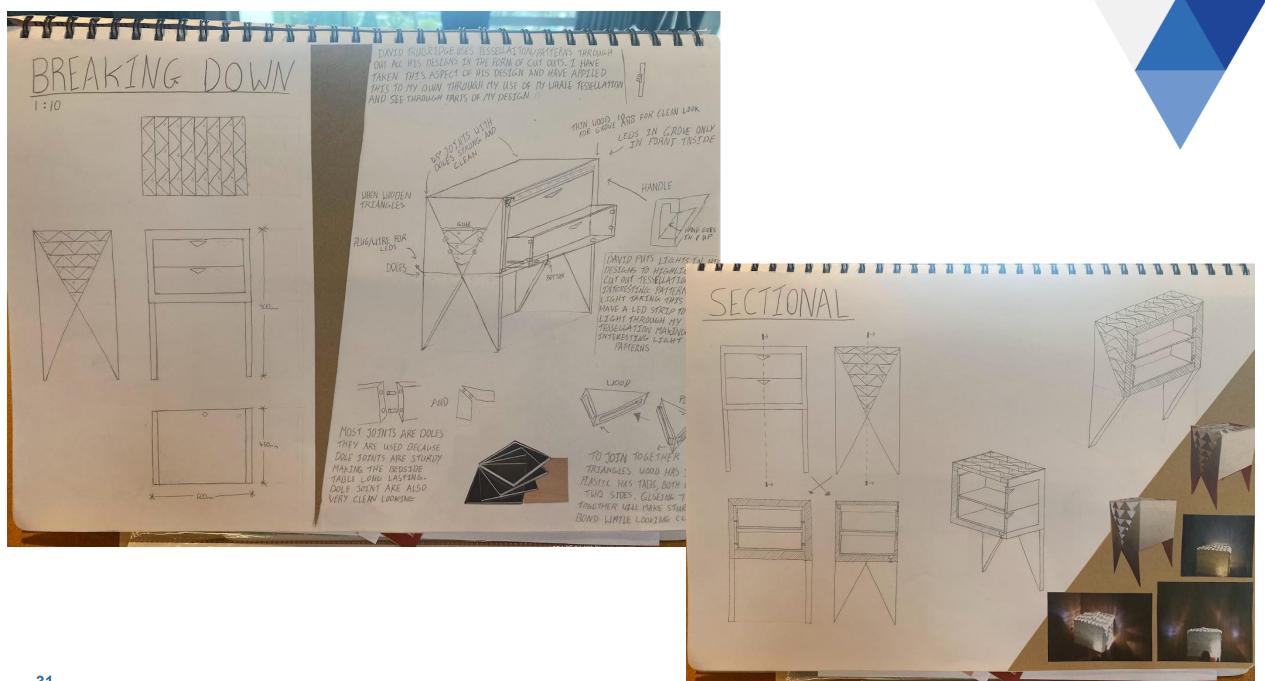
Tane - Separates the earth and the sky

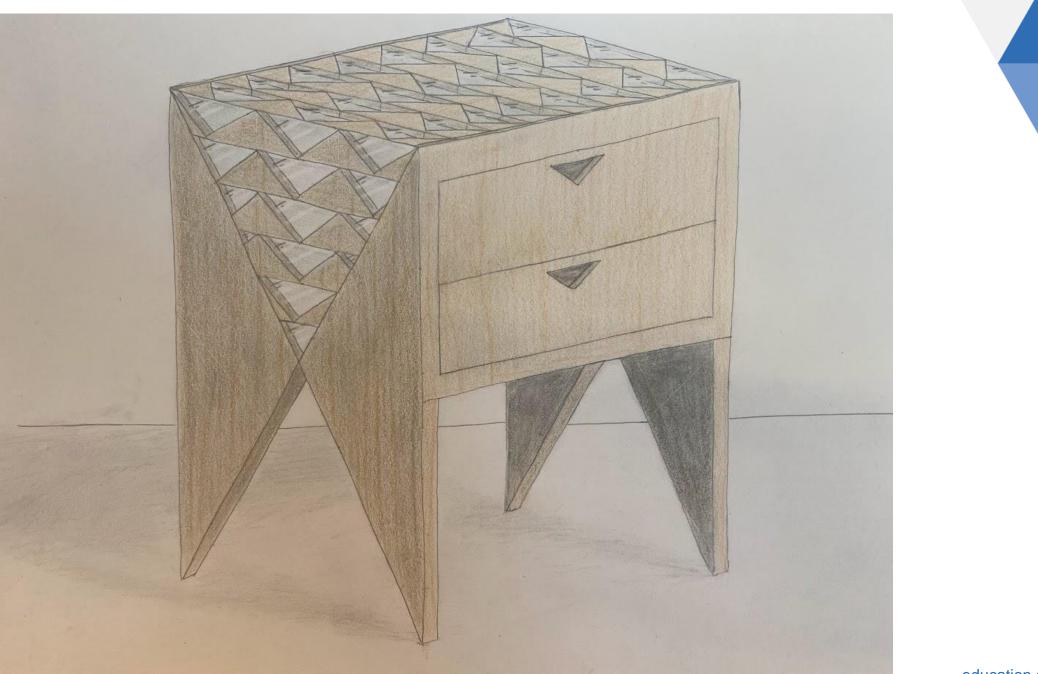


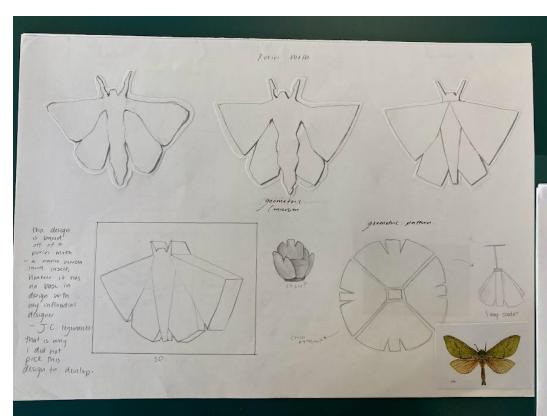
Tane-mahuta is the god of the forest and all that lives within it, especially the birds. He is also known as Tane, Tane-nui-a-Rangi and is very important in Māori mythology. He is the guardian of the forest and birds, however because of this, there is a rift between him and his brother Tangaroa, god of the sea. Tane is one of the sons of Papatūānuku and Ranginui. He was able to separate his parents after many of his brothers unsuccessfully tried to set them apart. Tane, lying on his back and pushing up against his father, was able to the back and pushing up against his father, was able to the back and pushing up against his father.

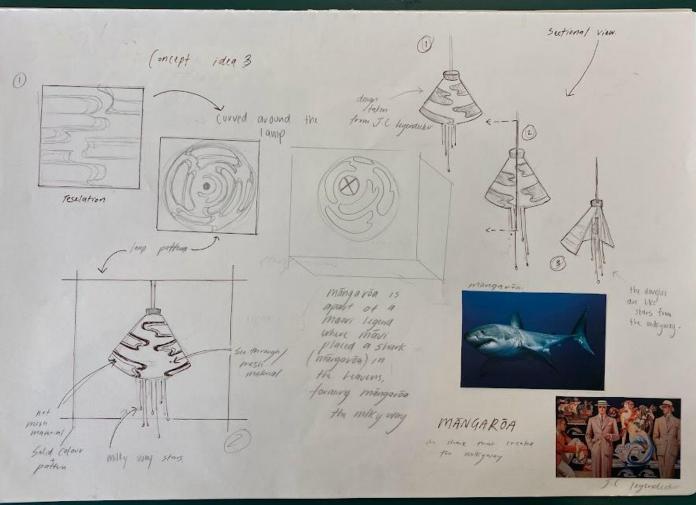
Using the simplified leg shape, I duplicated it then cut it out of balsa wood to make 3D models. I made the models by stacking and arranging them in different ways until I found two designs that worked and could have the potential to evolve into something else.











# Localising your curriculum

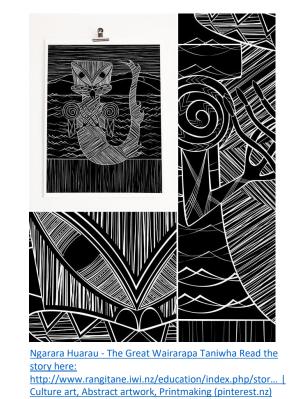


# Design Brief

- Specifications:
- You must use The pūrākau of Ngarara Huarau as inspiration in your design
- You have 20 minutes
- You can work solo or in groups

<u>Huarau (Māori) b</u>

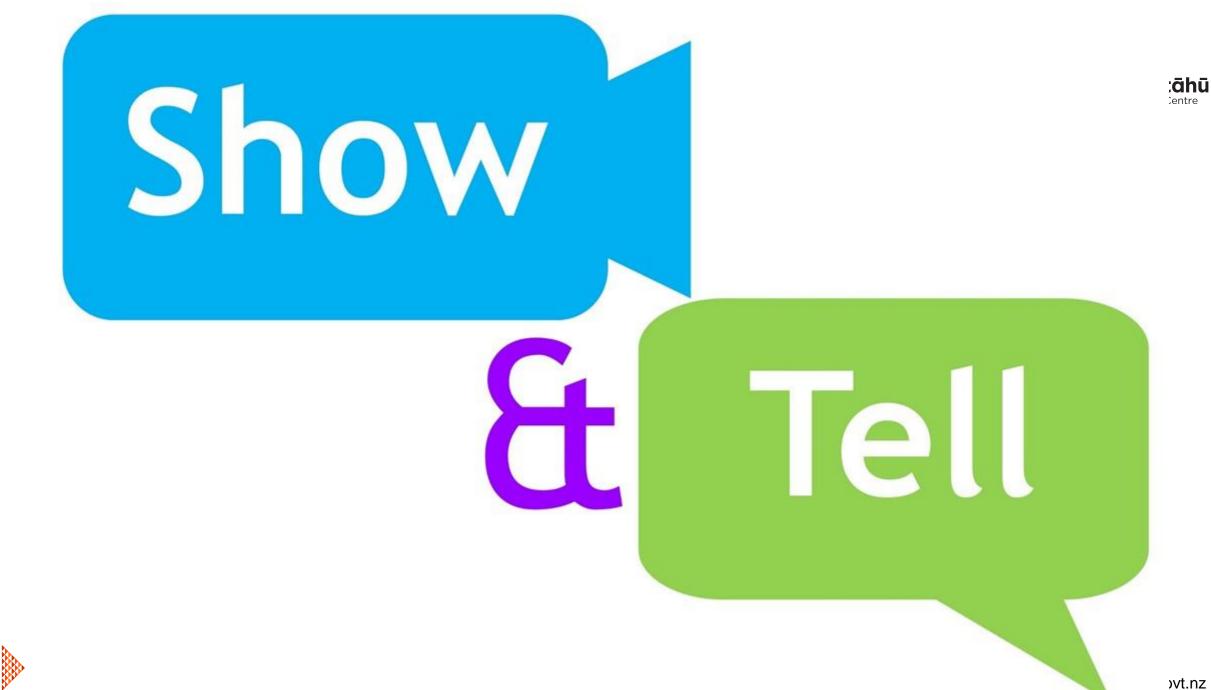
 You can use any materials to explore design concepts and present your design idea (Yes, you need to present your design at the end!)

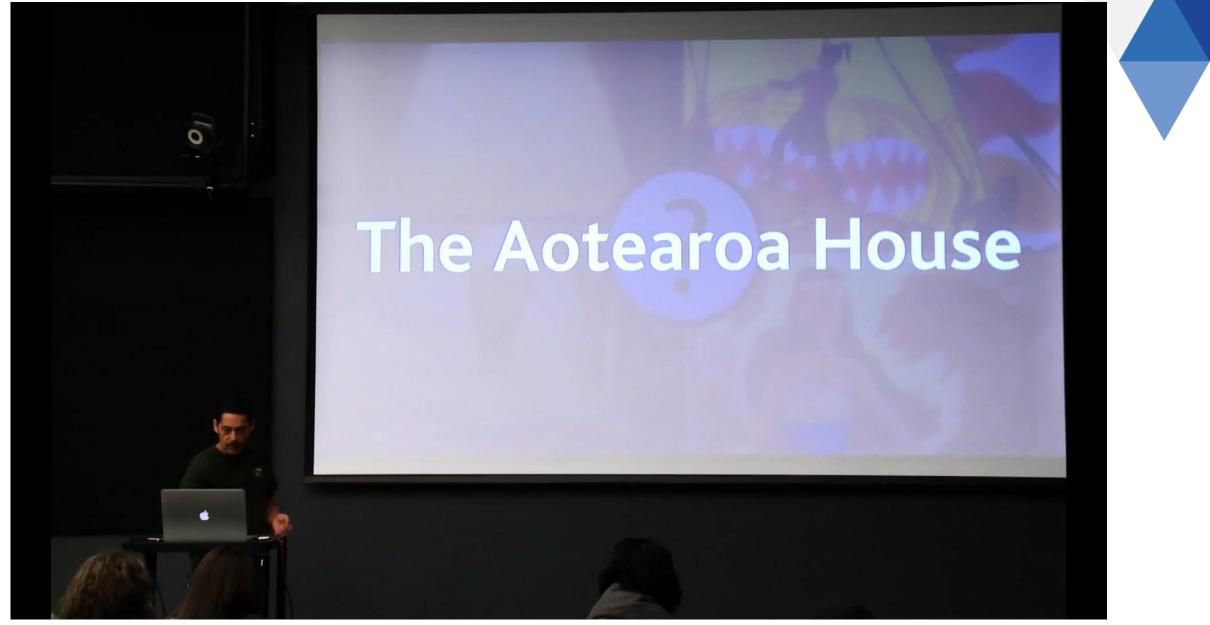






Ngarara Huarau is a traditional story from Te Whiti which is an area to the east of Masterton in the Wairarapa Region. The tale of how the warrior Tupurupuru tamed the mighty taniwha Ngarara Huarau is a favourite with children but has entertained people of all ages for centuries. Many of the places mentioned in this story can be visited. Some are accessible on foot; others can be viewed from the road. education.govt.nz





To what extent is there evidence of highly effective, culturally responsive teaching practices for Māori learners? <u>https://vimeo.com/246505554</u> education.govt.nz

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# Student Activity: Physical and functional attributes and fitness for purpose

## Whole class or small group activity:

- Discuss fitness for purpose and physical and functional attributes— (share word banks, make wordles, mind map)
- Jar 1: physical and functional lots of bits of paper with either physical or functional written on the paper and screwed up in the jar.
- Jar2: a variety of outcomes these could be context related, not context related or a combination of both, written on paper and screwed up in the jar
- A student picks a piece of paper from Jar 1 it will be either physical or functional
- The same student then picks an outcome from Jar 2.
- The students will then need to state either a physical or functional attribute that the outcome requires in order to be fit for purpose dependent on their selection.

\* Could be made into a game, could have rewards...... Could be a useful – "I've finished activity" – 15 mins before clear up ☺

## Examples of outcomes:

- Table
- Stool
- Toaster
- Scarf
- School jersey
- Snack on the go
- Preserved vegetables
- Floor lamp
- Door bell
- Tiara for a ball
- Clock
- Spiraliser
- Juicer
- Raincoat
- Go Kart
- Hair pin
- Etc.



education.govt.nz

# **Student Activity: Dice**



- 1. Roll dice 1: transform, manipulate or combine
- 2. For:
  - transform and manipulate roll one materials dice
  - For combine roll two 'materials' dice
- 3. In your groups discuss what experimentation ākonga could carry out within your classroom context

*Transforming* means to change one material or item by altering its structure.

*Combining* means to mix two or more materials.

*Manipulating* means to handle or control a material without changing its structure or composition.

\* Do you have the facility to 3D print dice?......

Ākonga could make their own dice using nets



# Andrea Graham HOD Technology: St. Catherines' College, Wellington

On the dice I had:

- Newsprint
- Flax- we got it from the school garden
- Paper plates from a 2nd hand shop.
- Modelling clay
- Wool
- Popsicle sticks







- I put the descriptions of combine, transform and manipulate on the board. They all rolled combine.
- They were in pairs.
- They rolled the dice towards the end of my introductory lesson on what we were doing in the class.
- They had about 10 minutes to Google ideas.
- They had a 50 minute lesson the next day to complete it the outcome.
- They were all well prepared and just got going (I think they had done more googling after schc

I used it as a Year 10 fun activity at the beginning of the year - no serious stuff.



# Sticky questions

- Technological terms
- Kupu Māori
- Authentic context ideas
- Properties and Characteristics of materials
- Techniques
- etc



# Mana Ōrite mō te Mātaruanga Māori





## What is mātauranga Māori?

We share what has happened in the past, and how that might look in the present—All while thinking about the change we are wanting to make for the future.

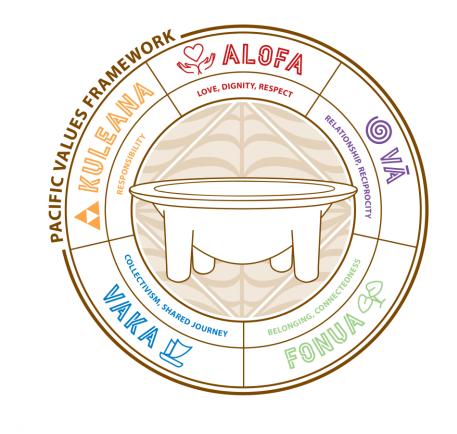
WATCH NOW

21m

Mana örite mö te Mātauranga Māori - Equal status for mātauranga Māori in NCEA | NCEA (education.govt.nz)

education.govt.nz

# **Pacific Values framework**



# Introducing the Pacific Values Framework



Click here to view video

The following video highlights the importance of understanding the need to deliver an NCEA that is inclusive of Pacific knowledges, cultures, languages, identities, and contexts.

Recognising that Pacific communities have not always been well-served by the education system, kaiako are encouraged to explore how the design programmes of learning in NCEA can better celebrate and acknowledge the diversity of Aotearoa, including Pacific learners, their families, and communities.

Pacific Values Framework – Delivering for Pacific Learners and Contexts | NCEA (education.govt.nz)

# **Literacy and Numeracy Guides**

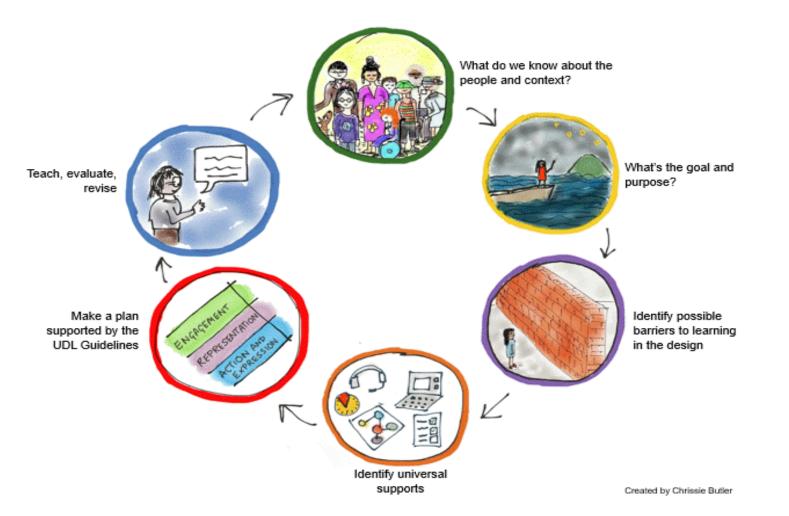
Overview | NCEA (education.govt.nz)





The Literacy Pedagogy Guides (LPGs) | NCEA (education.govt.nz)

# Inclusion – Universal Design for learning



Universal Design for Learning (UDL) | NCEA (education.govt.nz)



# Take-away activities for departments/faculties



There are several NCEA and NZCR resources that can be used to support professional learning activities with your teachers, including:







Teacher-only days | NCEA (education.govt.nz)

NZCR Resources | Te Mahau





# Think about the Pedagogical shift:



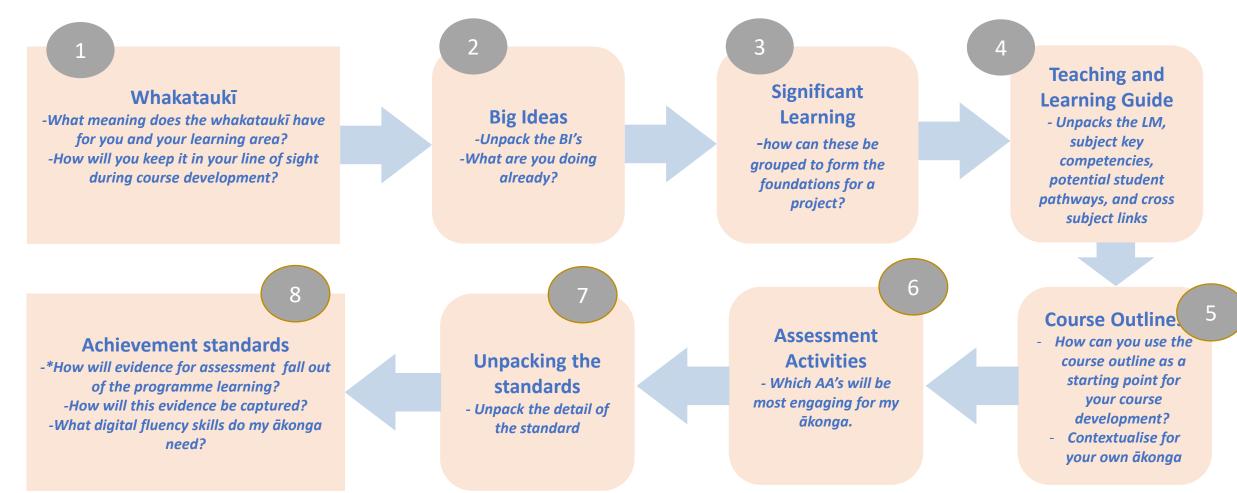
MINISTRY OF EDUCATION

To: Ākonga are learning 'about all this really cool stuff', they will generate evidence that can be assessed by 'that' standard.

# NCEA Programme planning where to start.....

**Ākonga centred.** Know your ākonga.

# Understand your local curriculum.



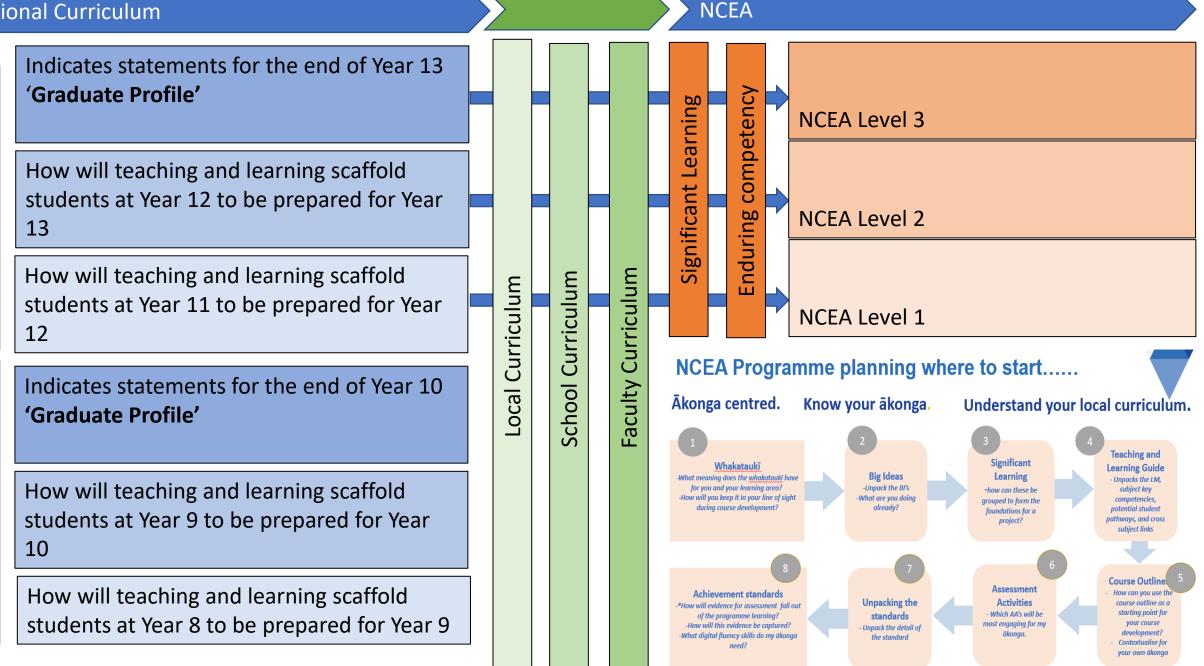
## National Curriculum

ப

Phase

4

Phase



## **Technology Course**

Teaching and learning programme derived from the Learning Matrix: Big Ideas, All subject Significant Learning

Matauranga Māori, Pacific perspectives , Universal Design for Learning, Pathways, Localised Curriculum, school context, teaching environment, resources, expertise, graduate profile

Project A Significant Learning

Highlight the SL that will be a focus in this project

Project B Significant Learning

## Highlight the SL that will be a focus in this project

Evidence for 1.1

Evidence for 1.2

Evidence for 1.3

Evidence for 1.4



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Teaching and Learning

Programme

Planning

Course

Ākonga would have the opportunity to endorse in a subject specific Technology course









### Timetabling Year **Course planning discussion** 11 classes at the same time to allow students to Do not need to assess all four achievement standards from a subject move between • The achievement standards assessed, can be from different Technology subjects specialisms/inter Course endorsement comes from the course ākonga undertake. ests 2024 – Each Year 11 subject will teach all SL and assess 10 credits across the • What might a year look I wonder if we could board Run an in-school 'Pilot' in *implement a cross* like in your context? curricular Technology 2022 using Level 1 as published on ncea. Revise programme for all year 11's and Embed in 2023. • In groups: I wonder if students from more Share and discuss approaches and thinking than one technology subject • At the end one person from each group feeds could collaborate on one authentic outcome – a unified back about discussions technology project







# In summary

## Past

- Assessment Centred
- Fragmented Learning
- Uncertain pathways
- NCEA as a pseudo NZCR
- Huge Assessment matrix
- Credit range 2 8
- Subject endorsement

## Future

- Learning Centred
- Coherent Learning
- Open pathways
- Alignment between NZCR and NCEA
- 4 Achievement standards per subject
- Credit range 4 6
- Course endorsement

## MoE Technology workshop survey:



Thank you for taking time to complete the survey about the Technology Workshop ©

Your feedback is valued and an essential part of the work we do.



https://forms.office.com/r/TKXQzmuBui

# Feedback Form

TENZ Technology workshop survey:

Click Here

## Join TENZ



Wairarapa TOD Workshop

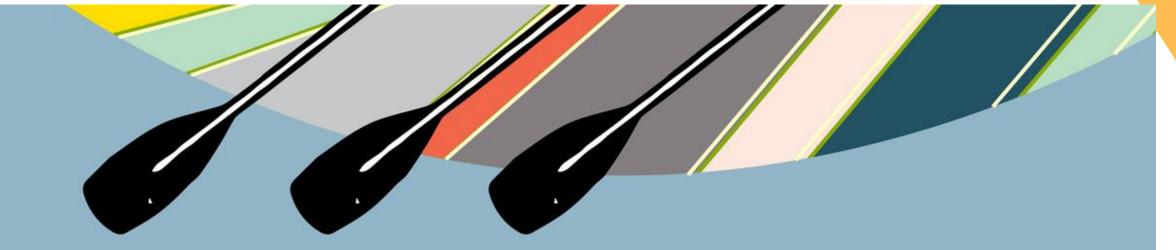


www.tenz.org.nz









# He waka eke noa We are all in this together

Vital for the growth of Abteron

It is a way of recognizing /accepting cultures with a focus on past, present cultures fortune growth.

1 What is your understanding of Mātauranga Māori?

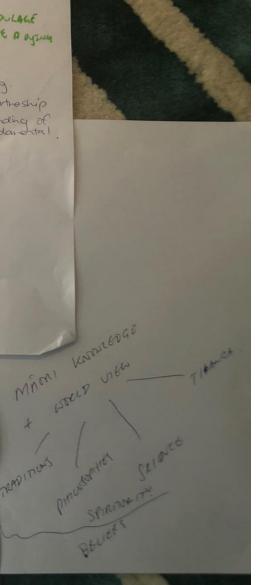
- building relationships with students.
- equal status / value / party
- understanding culture / tikanga woven in to learning

Parga

- respect of all cultures , of each other.
- a particular process of learning

- PASSED ROWNKMOULAGE - A WAY 70 REUS VE A BYSNIG CULTURE

> vphoding. Te firiti partroship and understanding of how it's fundariontal





temahau.govt.nz

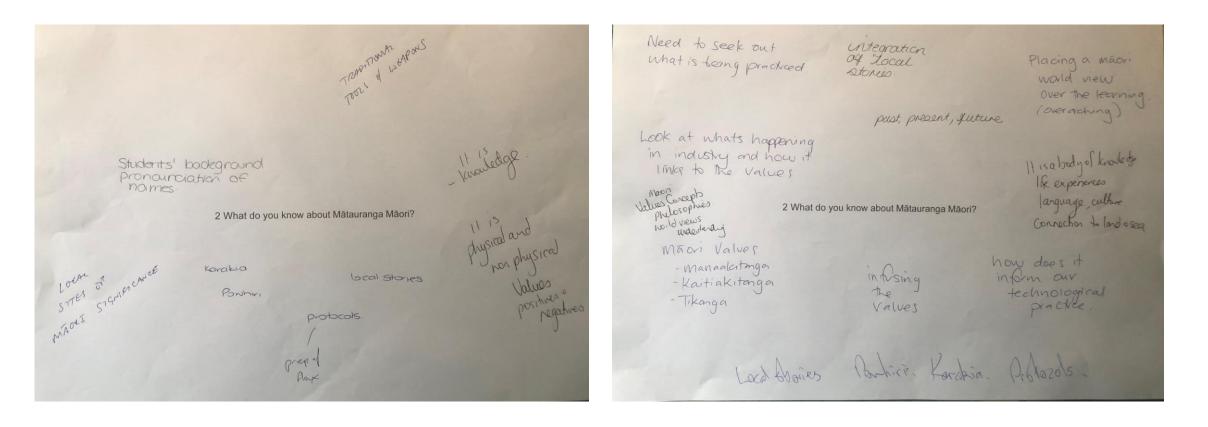
1 What is your understanding of Mātauranga Māori?

apan da'

Local stories Maori knowledge/understanding

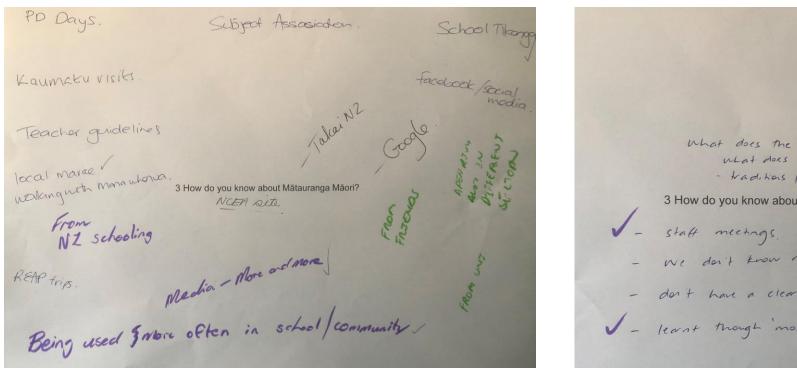
Rangitane lati Kahagnara

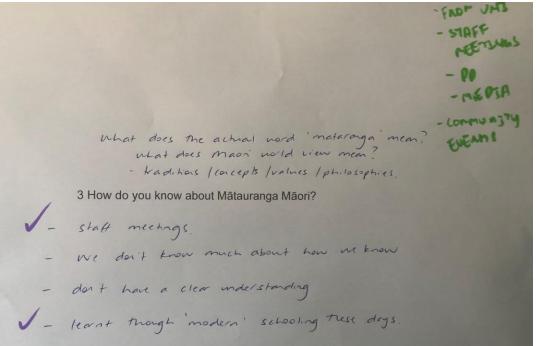






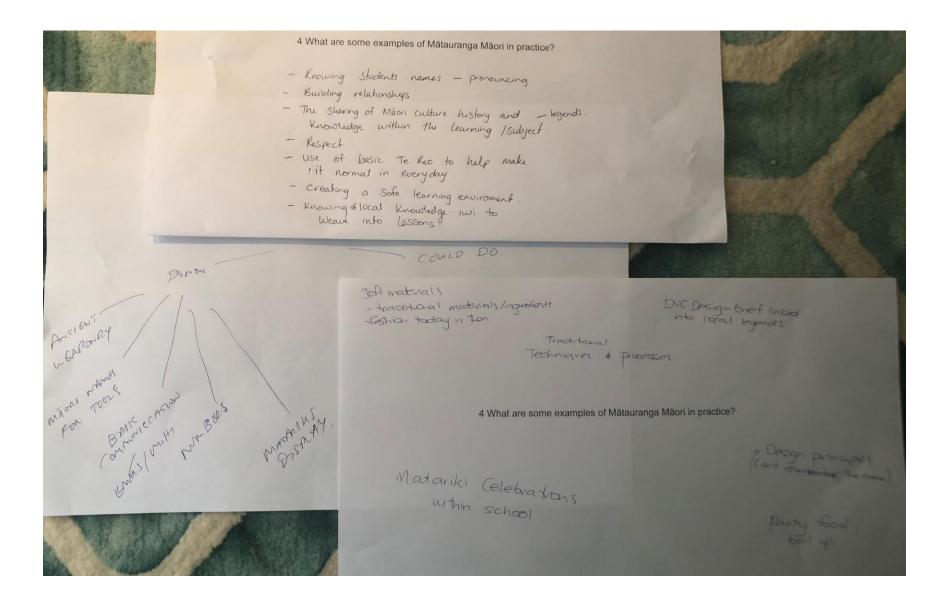








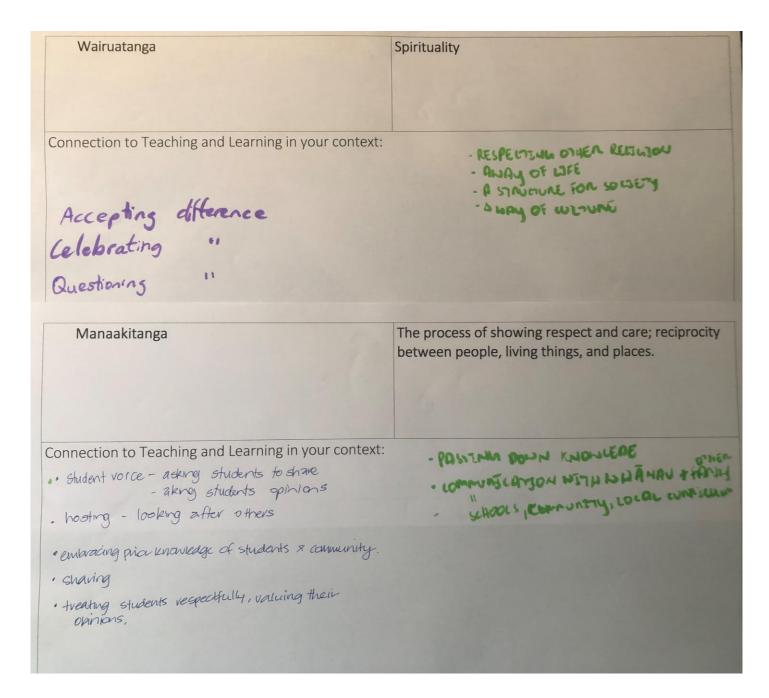




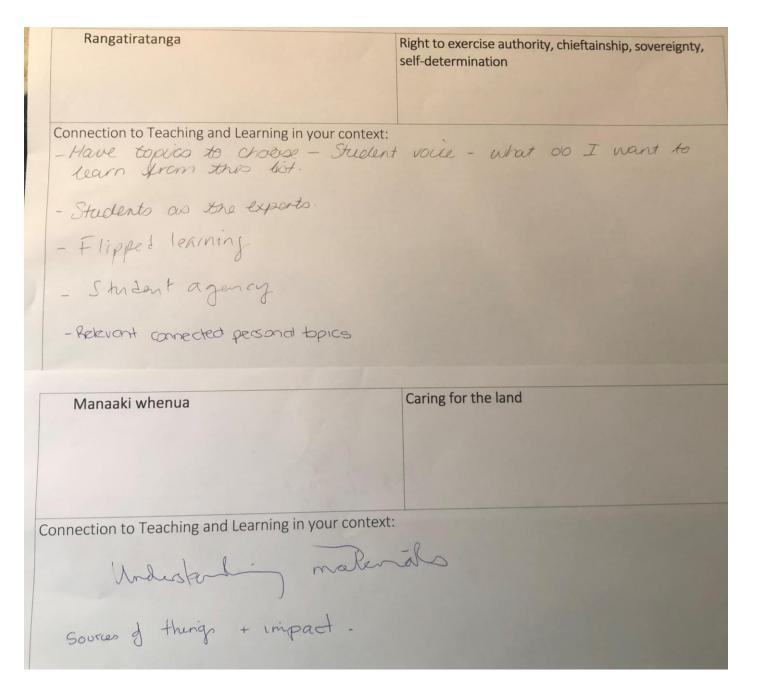


Rangahau Research Sustainability Scitable materials Investigation Connection to Teaching and Learning in your context: Food - fats & oils? Add Chi Massi construction techniques - seismic testing Or Anthony Hoete sustainability - us a digital postprint permanent?? Research is the base of all write of work. The reacach needs to be practical exploration as well as historic Auahatanga Greativity. Innovation and creation. Technology is creativity and innovation through the design process. Connection to Teaching and Learning in your context: DVC - students are given design break where they are encarraged to be creative and innovative B- their automes Iterations of designs. DT - creature process in solving problems that have come art at the arthentic projects/learning Food - coming up with new toods based on the Stakeholder and context



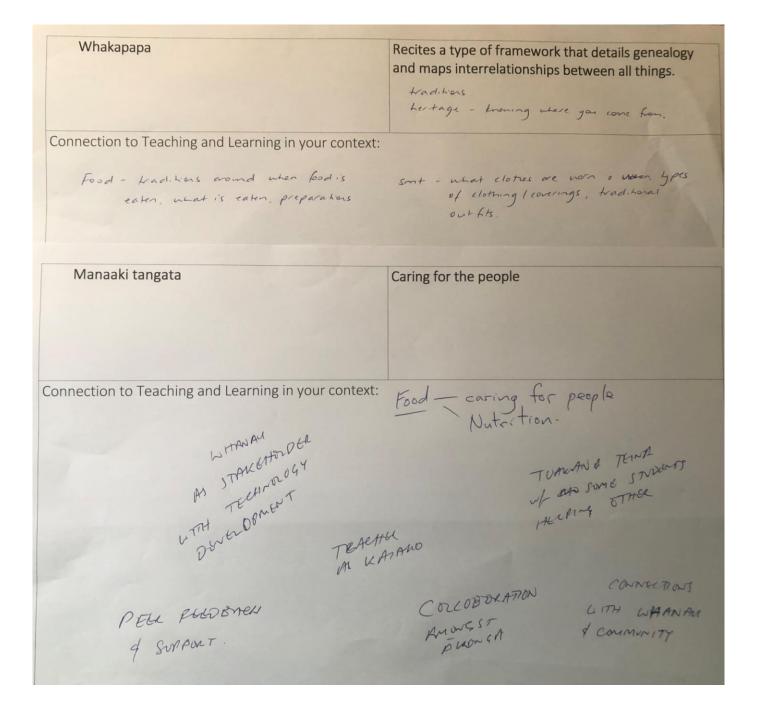






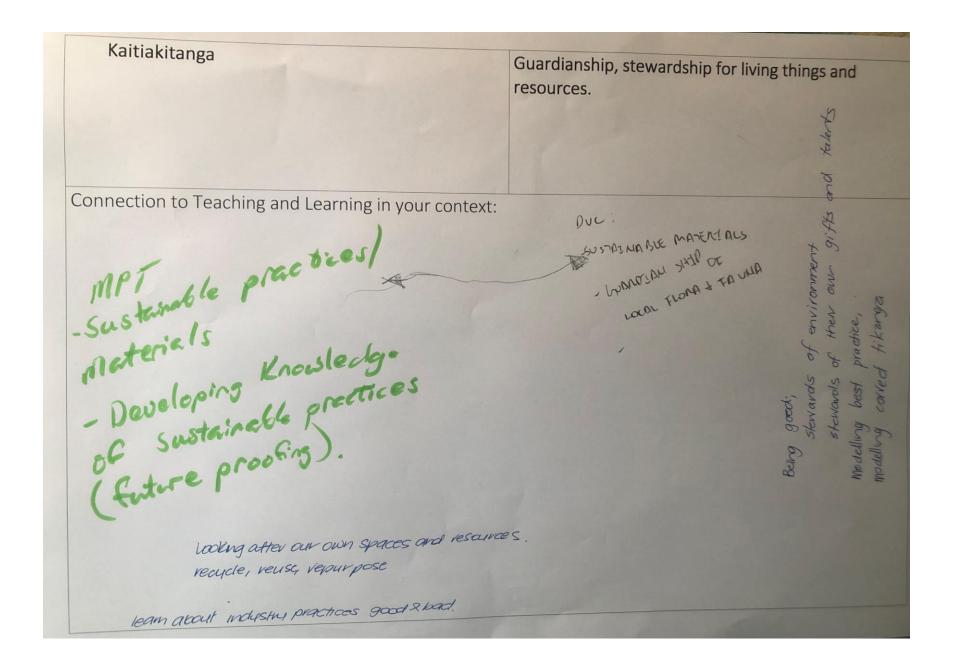










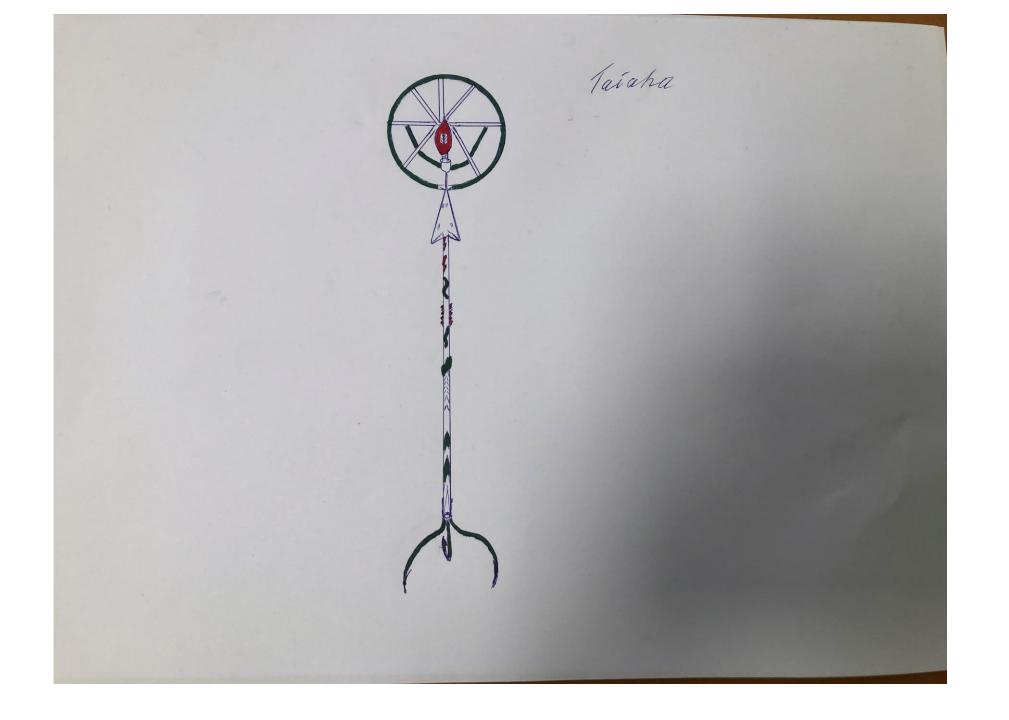








Whanaungatanga A sense of relationship, connection, and belonging. - Stake to I del's - gaining knowledge from others. - commily; school, whenen, spot. Connection to Teaching and Learning in your context: SANT Food design - meaningful design showing - sharing of God connection to a group. - Karakia. - God backs, commity groups, marae. - menu design for a group. - taking away individual & making them part of a group's planning as part of or for a group.





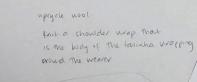
## Design body adornment.....any kind of body adornment

### Specifications:

- · You must use The pūrākau of of Te Ika-a-Māui as inspiration in your design
- You can work solo or in groups
- You can use any materials to explore design concepts and present your design idea (Yes, you need to present your design at the end!)







could do it in crocheted fabric + weave wire though it & stability wep would arm band Could be noven with flox

# wap wound neck band -woven we head facing down.

# recycle

# Whai Kaitiaki of the Ocean.

Dyed black Flax Cord. Rima Peg

Fused Glass

Tones

glass

wicet

00

# Gra made bil. plaitting



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