

TAKING POSITIVE ACTION IN FOOD SELECTION AND PREPARATION. ASSESSING THE IMPACT OF SUBSTITUTING VEGETABLES FOR MAIN INGREDIENTS IN A TRADITIONAL RECIPE.

ESSENTIAL QUESTION: HOW MANY VEGETABLES CAN YOU HIDE IN A CAKE?

WHAT ARE WE LEARNING?

- Gathering, sorting and displaying whole number data as part of the statistical inquiry cycle.
- Undertaking planning to identify the key stages and resources required to develop an outcome.
- Understanding how the nutritional makeup of a recipe can be altered and modified.

TRY THIS WITH

- Year 7-8
- Students who love being competitive.
- Students who dislike vegetables.

find

apply

produce

Recognise
Identify
Label

Select
Classify
Give examples

Ask each student what colour the last vegetable or piece of fruit they ate was.
Graph the results to see which colour is the most popular.
Using Instagram, give students 10 minutes to find different coloured foods.
Classify the foods as either natural or artificial, and find out how they get their colour.
Discuss the nutritional value of an orange vs Vitamin C pill.
Ask: Does the Vitamin C in a pill come from oranges or something else?
Search Instagram for #vegetable and attempt to label all the vegetables that appear.
Research the health benefits of each colour and vegetable.
Use the Quick App text tool to label each photograph, e.g. zucchini, VitaminC, healthy bones.
Repost to instagram.
Talk about the impact of too much sugar in our diets.
Research sugar content in vegetables.

Make use of
Differences
Experiment

Practice
Examine
Analyse

Make and send an invite to another class saying you'll shout them morning tea.
Explain to students they must create a cake that contains hidden vegetables.
Taste possible vegetable preparations for cake recipes, e.g. pureed, grated etc.
Identify which vegetables and which preparations you wish to test.
Use this recipe as the control cake for experimentation.
Use Easy Diet Diary to calculate the nutritional makeup of your control cake.
Make the base cake batter and divide into five equal parts.
Add different combinations of vegetable preparations to each part in line with your hypothesis.
Spoon into cupcake cases and bake according to instructions.
Use brightly coloured vegetables to make natural food colours for icing.
Predict what has happened to the nutritional value of your cake.
Taste and make flavour adjustments, (lemon juice, honey or vanilla).

Innovate
Create
Judge

Award
Influence
Recommend

Ask: How can we fairly test our normal version against our vegetable version?
Create a fair test for the traditional and modified versions of the recipe.
Remind students that the morning tea needs a control cake to test the others against.
Cocreate a simple rating system (such as stickers) based on looks and taste.
Support students to create their cakes for judging using knowledge gained from the testing phase.
Use Easy Diet Diary to calculate the approximate nutritional value of each cake.
Host the invited class for the morning tea shout.
Ask students from the visiting class to write the vegetables they think are in the cake on a card.
Explain the rating system to the visiting students so the other class can score each cake.
Reveal the secret vegetable ingredients of each cake and establish an overall winner.
Ask: What did vegetables actually do to the cake? Did they make the cake healthier?



success criteria

Students can check they have successfully completed the task by:

- Creating a Quickapp Text overlay that accurately identifies the health benefits of a vegetable.
- Creating a prototype cake and identifying an element of the prototype that requires modification.
- Create a cake for the final morning tea shout that makes an honest attempt to hide vegetables.

PRINCIPLES	VALUES	KEY COMPETENCIES	LEARNING AREAS	WORD BANK	KEY CONCEPTS
Community engagement Future focus	Community and participating Respect Innovation, inquiry and curiosity	Thinking Using language, symbols and texts Participating and contributing	Health and physical activity Food technology	Nutrition Prototype Puree Hauora	Nutritional Makeup Substitution Design process Fair Test

I KĀINGA AKU MAHI KĀINGA E AKU HUA WHENUA

HE MAHI HEI AKO I TE KĀINGA HEI WHAKAMĀTAU I
NGĀ WĀHANGA 1, 2, 3, 4

ME HE MATATAUĀ
ME HE MATATAUĀ
ME HAERE MATĀ HUNA
KI TĒTAHI MĀRA

Hangaia he pahū
kākano ki te kano
hua whenua, ki te kano
amiami. Tautuhia he wāhi
wātea e whakaaro ana koe ka
pai mō tō pahū kākano. Waiho
te pahū kākano ki taua wāhi.
Ka kahu ake ina tika te wā
ki te tipu.

HEI AKO: MAHI I TE HAPORI. TE KAHU O TE KANO

WĀHANGA 3

MATARIKI ATŪA KĀ EKE MAI I TE RĀNGI E ROĀ, Ē
WHĀNGĀINGĀ IHO KI TE MATĀ O TE TĀU E ROĀ Ē.

Ki te mārama, ki te kĀnapanapa ngā whetū o
Matariki, he tohu tēnei kia tiria ngā hua whenua
ki te māra ā te Mahuru, he tau humi kei te
haere. Kimihia tētahi e mōhio ana mō te tiri me
te hauhake kai i runga i te whai i te maramataka
me ngā whetū.

HEI AKO: NGĀ KĀHUI WHETŪ, NGĀ TIKANGA AHUREA

Me nēhita ki te āwhina ki te
Kohi Hua Whenua i te Hapori.

Ko tā Pickfruit, te
Hapori o te Tau o
Aotearoa 2016, he
ruruku i te kohikohi
hua rākau kāore
e pīrangihia
ana i ngā māra,
ka toha ai ki ērā
e hiahia ana.
Me haere tūao
koe ki te kohikohi
hua rākau, tirohia a
pickfruit.co.nz.

WHAKAMĀTAURIA
I TE RAUMATI

HEI AKO: TE HAERE HEI TŪAO, TE PŪKENGĀ MAHI

KIA HŌRAPA TE
AROHĀ I TE HUPA
HUA WHENUA.

He māmā te tunu, he iti te utu o te hupa. Raua atu
ngā hua whenua, ngā amiami nāu tonu i whakatipu,
me hoko rānei ina iti te utu. Kia rahi tonu te tunu
hei toha ki ētahi atu. Hoatu ngā toenga ki te pouaka
tio. Me whai whakaaro ki te hunga kaumātua, ki ngā
whanaunga, me whakarite rānei ki te tuku ki tētahi
whakahaere toha kai i mua i te tununga.

WHAKAMĀTAURIA
I TE TAKURUA

HEI AKO: NGĀ HIAHIA O TE HAPORI. TE HOAHOA KA

WHAKAMĀTAURIA
I TE TAKURUA

Hunaia ngā hua
whenua kā taea e
koe ki te keke.

Panonitia ngā tohu
tao tuku iho, ka
whakawhiti ai i ētahi
hanga matua ki te
hua whenua. He
pai te rengakura, te
kāroti, te hūkini, te
rengamutu, te raho
pūru, te kūmara me
te paukena. Ākene ka
taea e koe ō hoa te
hangarau.

HEI AKO: TE TUHI TOHUTOHU, TE WHAKAWHITI

WĀHANGA 2

ME AKO
KI TE
ROKIROKI
KAI

Kimihia tētahi
hei tohutohu
i a koe ki te
pīkara hua
whenua.
Ina pīkarahia te
kai, mā te tote
me te waikawa
e heke ai te
huakita, e
auroa ai te pai
o te kai.

WHAKAMĀTAURIA
I TE KŌANGA

HEI AKO: TE WAIKAWA, TE HUAKITA

KIMIHIA TE MĀRA I TŌ HAPORI, KIA PĀRUPĀRU
NGĀ RINGĀ MŌ TĒTAHI AHIAHI.

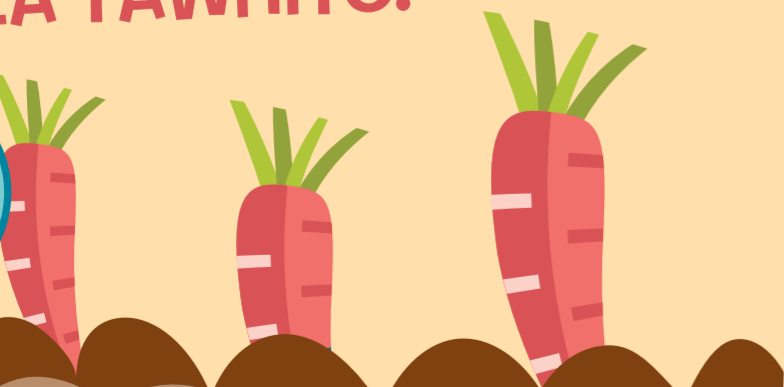
He maha ngā hapori whai māra i tētahi pito
whenua e wātea ana. Katoa aua māra kei te
ngakihia, kei te whāinuha, kei te keria, kei te
tiakina e te tūao. Ko te mea pai? Ki te āwhina
atu koe, kua āwhina anō koe ki te kai i ngā hua.

HEI AKO: MAHI PĀPORI. TE WHAI WĀHI ATU

Ka tipu mai anō te Kāriki, te Rētihi, te Kāroti
me te Pāhera i te maramara noa iho. Ka whai
te hunga kōnui kākārīki ki te whakamahi anō,
ki te whakatipu pēnei anō i te kai.

WHAKATIPUHIA HE HUA
WHENUA HOU MAI I NGĀ
MEĀ TĀWHITO.

WĀHANGA 1



HEI AKO: KIA UKAUKA, TE HURIHANGA ORA

ME WHAKAHĀU TŌ WHĀNAU
KIA KAUA E KAI MĪTI I
NGĀ RĀHINA MŌ TĒTAHI
MARAMA.

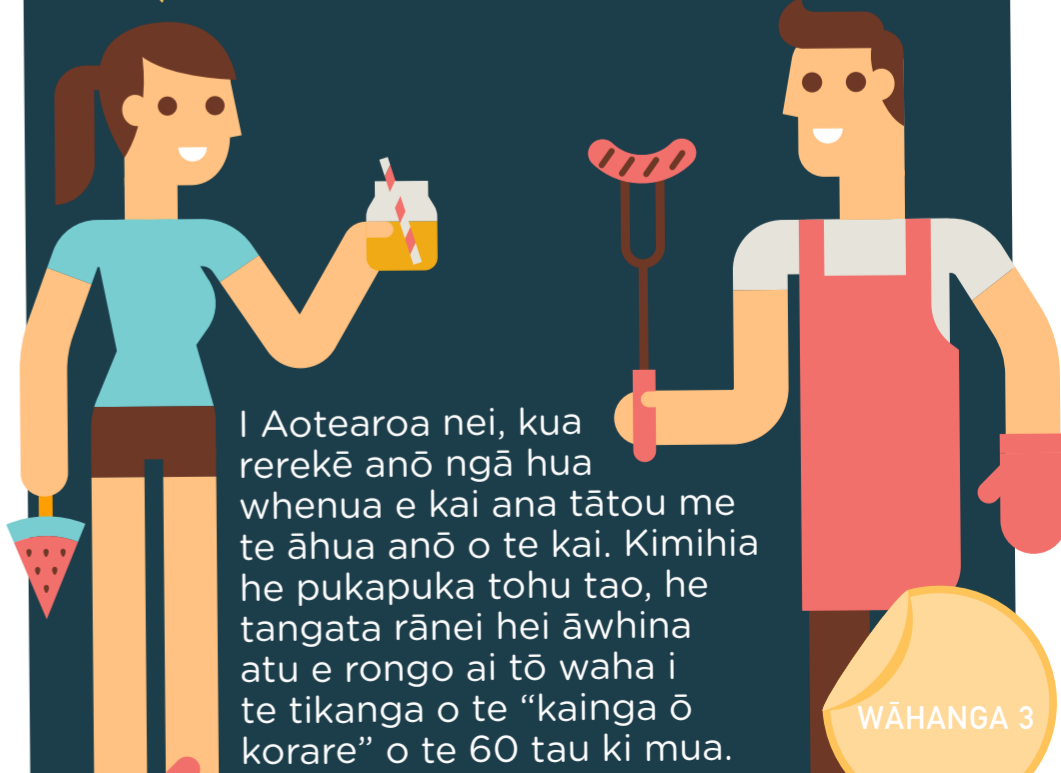
WĀHANGA 4



Me huri hei Whānau Hangore ka whakahaere ai i
tō tapuwae waro, ka whakapiki ai i te hauora o te
whānau, ka penapena moni anō ai.

HEI AKO: TE PĀNGA KI TE TĀIAO, NGĀ WHAKATAU MATATIKA

Kainga ō korare pērā i a
rātou o te tau 1956.



I Aotearoa nei, kua
rerekē anō ngā hua
whenua e kai ana tātou me
te āhua anō o te kai. Kimihia
he pukapuka tohu tao, he
tangata rānei hei āwhina
atu e rongō ai tō waha i
te tikanga o te "kainga ō
korare" o te 60 tau ki mua.

WĀHANGA 3

HEI AKO: PANONITANGA PĀPORI, PŪKENGĀ RANGAHĀU