

Cockburn Healthy Schools Program

January 2024 – December 2024

Funded by ATCO Pty Ltd

In partnership with Cockburn Integrated Health

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Executive Summary

The Cockburn Healthy Lifestyle Service (CHLS), established in 2017 by Cockburn Integrated Health (CIH), is an initiative aimed at supporting adults in adopting healthier lifestyles through access to resources and support. Those under the age of 18 are referred to the Optimal Weight for Life (OWL) program, offering healthy lifestyle support tailored for children and adolescents. Recognising gaps in community access to prevention services addressing overweight and obesity among school-aged children in Cockburn, CIH developed the Cockburn Healthy School Program (CHSP) to address these community needs.

The CHSP assists schools to improve student nutrition and health literacy while linking the demographic to existing health promoting services. The program has been supported by ATCO Australia Pty Ltd since 2020, With funding secured through to December 31, 2024. This report evaluates the program's emphasis on nutrition initiatives throughout the funding period.

CIH acknowledge ATCO Australia Pty Ltd and key stakeholders, including Hardy Nutrition Dietary Consulting, Foodbank WA, KidSport, Mentally Healthy WA, Cancer Council WA, Curtin University, and the City of Cockburn.

1.0 Healthy Schools Program Overview

In 2021, the Cockburn Healthy Schools Program (CHSP) conducted a comprehensive assessment of nutrition needs across five primary schools within the City of Cockburn: East Hamilton Hill, South Lake, Yangebup, Spearwood, and Phoenix. This evaluation identified specific gaps in students' nutritional knowledge and skills, allowing CHSP to target age groups most receptive to learning and to optimise the program's impact.

CHSP then reached out to four existing services for support: Cancer Council WA offering nutrition resources and workshops, Mentally Healthy WA providing guidance on creating mentally healthy schools, KidSport providing community sport resources, and ATCO offering free access to their Blue Flame Kitchen School Program. These resources were compiled into packages and provided for the schools visited. Hardy Nutrition and Dietary Consulting contributed an Accredited Practising Dietitian to help develop and deliver in-class nutrition education sessions at the participating schools.

Since 2021, CHSP has continued to implement the program to a minimum of 5 primary schools annually, across the City of Cockburn. The CHSP has been delivered to 38 schools, with a total of 374 sessions delivered and 3727 students reached to date.

In 2024, the CHSP coordinator engaged with five primary schools within the City of Cockburn to assess the current health literacy levels of year 4, 5 and 6 students with a focus on nutrition and healthy living. The schools visited this year included Southwell, Coolbellup Community, South Coogee, Jandakot, and Aubin Grove Primary Schools. Findings indicated that literacy levels of most schools were comparable to the schools visited in 2021.

1.1 Mentally Healthy WA

The Mentally Healthy Schools Program, by Act-Belong-Commit, promotes mental health and wellbeing for students, staff and the broader school community. It encourages students to adopt mentally healthy habits, reduces stigma around mental illness, and helps staff create a supportive school environment. Participating schools receive resources and support to integrate Act-Belong-Commit principles into classrooms and activities that build resilience, mindfulness, and mental health literacy. All five schools involved in the CHSP were encouraged to join the program.

1.2 Packed with Goodness

The Packed with Goodness program, run by Cancer Council WA, helps parents prepare healthy lunchboxes through free 90-minute in person or online sessions. All schools were informed of the programs availability and encouraged to book a session.

1.3 KidSport

Kidsport, a Western Australian Government initiative, helps children aged 5-18 from lower-income families participate in community sports by providing up to \$500 annually to cover club registration fees, uniforms and equipment. Each school received flyers, KidSport application forms, and an electronic copy was sent to parents and caregivers.

1.4 Blue Flame Kitchen Schools Program

ATCO's Blue Flame Kitchen Schools Program is a free excursion for year 5 students that teaches students to prepare and cook healthy and delicious food, using a garden to plate philosophy, while also learning about natural gas safety and the future of energy. Schools were encouraged to participate, and bus funding was offered. One school used the bus subsidy offer, and one other school booked in for 2024.

2.0 Nutrition Education

Nutrition education lessons were provided at five primary schools in the City of Cockburn. The program content was reviewed and revamped by an Accredited Practicing Dietitian and Public Health Nutritionist from CHLS, in collaboration with school staff. The lessons were tailored to be age and literacy appropriate and aligned with the school health curriculum. The content was then implemented by a CHLS Dietitian, Nutritionist and final year Dietetic Students, the lessons aimed to enhance knowledge and skills in healthy eating among year 4, 5 and 6 students. Each school received two sessions per class.

Across the five schools, a total of 40 lessons were conducted throughout all school terms (depending on when schools were working through the nutrition part of the curriculum). A total of 567 students received the lessons.

2.1 Nutrition Education Methods

The coordinator of the CHSP reached out to local City of Cockburn primary schools to gauge interest in nutrition education classes for upper primary school students. A needs assessment was conducted with the five schools via email and phone, focusing on class sizes, student literacy levels, prior knowledge of healthy eating, teacher understanding of nutrition, and teacher expectations for the lessons. Four schools were found to be at similar levels, while one school had previously participated in the CHSP and were at a higher literacy level. As a result, the final school received an altered version of lesson 1, expanding on previous knowledge.

Lesson one primarily covered the Australian Guide to Healthy Eating (AGTHE), detailed in the lesson plan in Appendix I. the session began with a group activity where students tested their knowledge through an AGTHE sorting exercise. They then explored the five food

groups, discussing their importance, daily serving recommendations, and appropriate serving sizes. The lesson shifted focus to discretionary foods, emphasising the effects of excessive salt, sugar and fat consumption. Students participated in a hands-on activity that classified different types of fat and the foods that belong to each category. These discussions and activities aimed to assess the children's understanding of healthy eating practices for pre- and post-evaluation.

Lesson two centred on reading food labels, as outlined in the lesson plan in Appendix II. Students learned to interpret various health claims made by food companies and assess whether a food product is healthy. The main activity involved hands-on label reading, where students ranked food packages from healthiest to least healthy and compared their findings with classmates. Like the first lesson, this session was interactive, featuring group work and class discussion.

The school with a higher literacy level, due to prior participation in the CHSP, received a modified version of the first lesson that utilised a quiz-based learning approach. Students were divided into groups to answer quiz questions related to the AGTHE, salt, sugar and fat. The quiz was complemented by hands-on activities, including the AGTHE sorting exercise and a classification activity for food sources of fat.

2.2 Nutrition Education Resources

Existing resources from the Cockburn Healthy Schools Program were utilised for the student education lessons. The following resources were handed out to the five primary schools; Best of Healthy Recipes for All developed by Foodbank WA and Cancer Council's Live Lighter lunchbox builder brochure. A total of 567 copies of Live Lighter lunch box builder and Foodbanks Best of Healthy Recipes for All booklets were distributed to participants.

2.3 Nutrition Education Evaluation

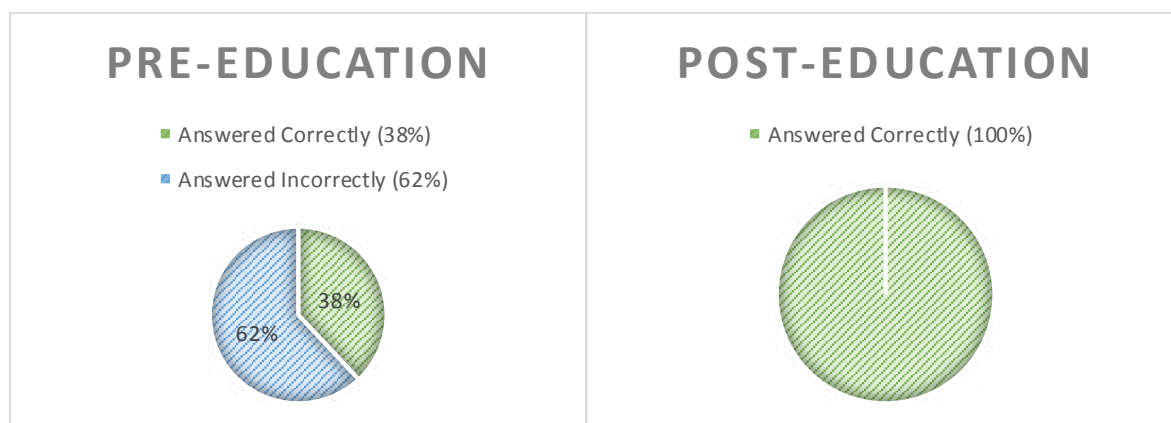
2.3.1 Lesson one

As mentioned in the methods section above, lesson one consisted of 2 main activities. A total of 567 students participated in lesson one across 5 schools, conducted over 40 lessons. The students were in grades 4, 5 and 6.

Across the five schools' students indicated a competent knowledge of the 5 food groups and which foods fit into which categories. Common foods which were misplaced included lentils, quinoa, bulgur, margarine, oil and eggs. Other common mistakes seen across the schools included students placing the sometimes foods into their own food group within the chart, and subsequently placing fruits and vegetables or protein and dairy into one group. After

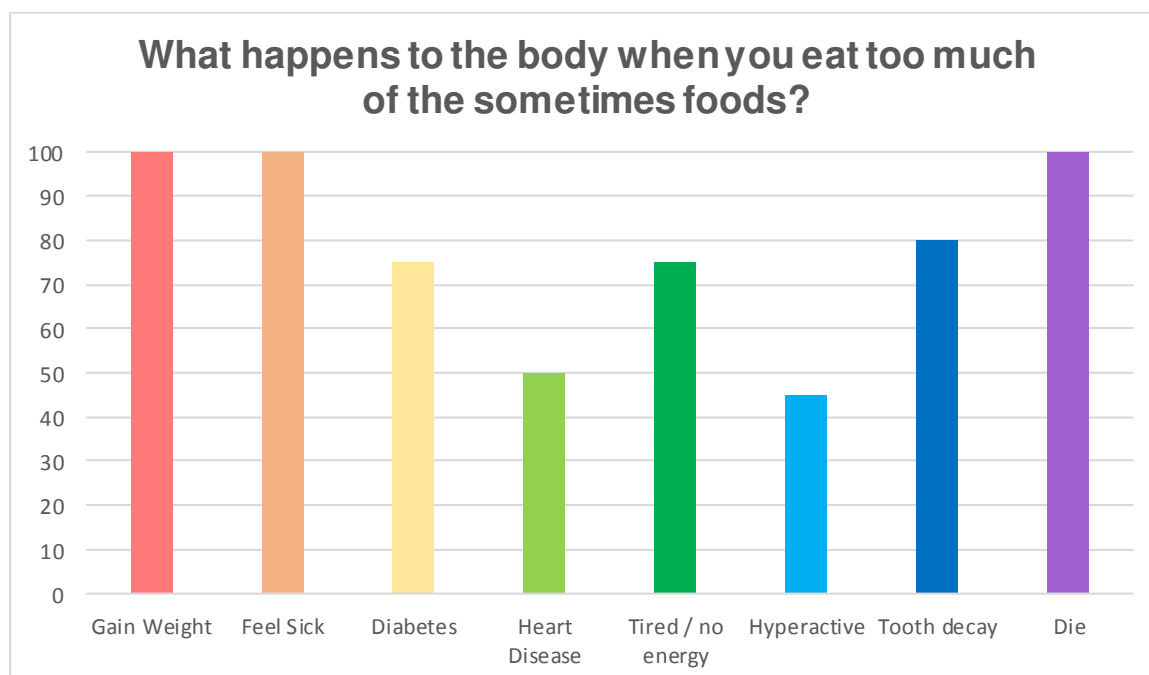
class discussion on the five food groups every group was then able to correctly place all foods, as can be seen in Figure 1 below.

Figure 1. Pre and Post education for AGTHE sorting activity



Across the five schools' students indicated a competent knowledge of what happens when sometimes foods were consumed in higher amounts, as can be seen with the common answers in figure 2 below.

Figure 2: Student responses to what happens to the body when you eat too much of the sometimes foods?



Across the lessons various types of sugar were reported by the primary school children. They consistently recognised naturally occurring sugars in fruit, with some identifying dairy

and honey as natural sources. Most students understood sugar is essential for energy and physical activity, and they all agreed that it enhances food flavour. However, only one student correctly identified that salt is necessary for maintaining blood pressure. Many students across the five schools acknowledged the importance of fat in the diet for protecting organs and maintaining weight, and three schools differentiated between healthy and unhealthy fats. In activity two, approximately 65% of students were able to categorise food sources of healthy and unhealthy fats without assistance, while 35% required help.

Student evaluation

Observations indicated that students were highly engaged during interactive pair-share, group work, and class activities. At the end of each lesson, a summary and take-home message were provided, allowing students to ask questions and reflect on what they learned. Responses demonstrated that students understood which foods belong to each food group, daily serving recommendations, and what constitutes a serving. They could also explain how to identify healthy versus unhealthy fat sources.

Teacher evaluation

The teacher evaluation questionnaire included seven questions: six were rated from strongly agree to strongly disagree, while the seventh allowed for additional comments or suggestions. (Refer to Table 1 and Appendix III for the questions and responses.) The questionnaire aimed to assess the session's appropriateness regarding timing, educational content, and overall satisfaction, as well as whether teachers believed the lessons would influence students' eating habits.

Table 1. Teacher evaluation feedback for lesson 1

Evaluation Question	Responses & No.				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Do you think the lessons run at an appropriate time length?	100%	-	-	-	-
Was the information	100%	-	-	-	-

delivered easy to understand?					
Do you think the lessons delivered were at the appropriate class level?	100%	-	-	-	-
Were the lessons interesting and helpful?	100%	-	-	-	-
Do you think the students will change their eating habits as a result of what they have learnt during the program?	-	30%	70%	-	-
How likely are you to recommend this program to others?	90%	10%	-	-	-

2.3.2 Lesson two

A total of 534 students from the five primary schools participated in the second session, which included a recap discussion to reinforce information from previous lessons. The session featured class discussion on health claims found on food packages, group activities focused on label reading, and practical applications of learned skills for creating healthier lunchboxes.

At the beginning of this session, a post-evaluation discussion for lesson one was conducted. Students were asked to recall details about the five food groups, daily serving

recommendations, and what constitutes a serving. Across the five schools, there was a 100% retention rate regarding the appearance of servings for each food group, while 75% correctly remembered the recommended servings, though some mixed up dairy and protein recommendations.

The first part of the session involved a class discussion about common health claims seen on food products, as illustrated in Figure 3. This knowledge was applied to Nutri-Grain packaging, where students identified health claims and voted on whether they perceived Nutri-Grain as healthy or unhealthy. After learning to read food labels, students were asked the same question again, with results shown in Figure 4.

Figure 3. Brainstorm of health claims on food packages

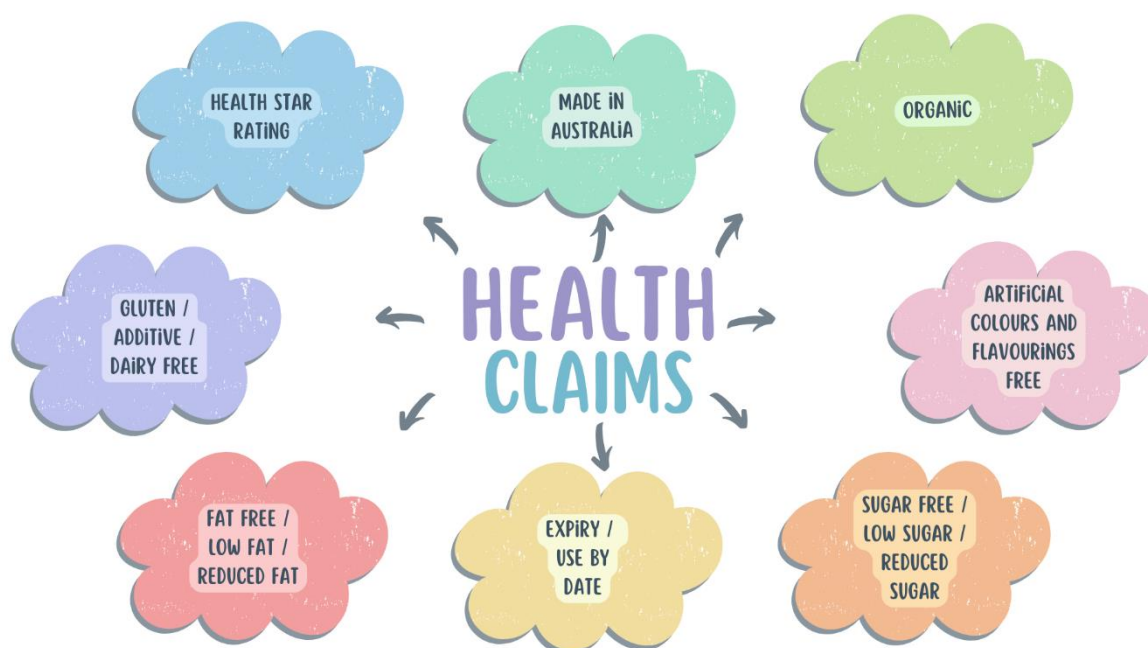
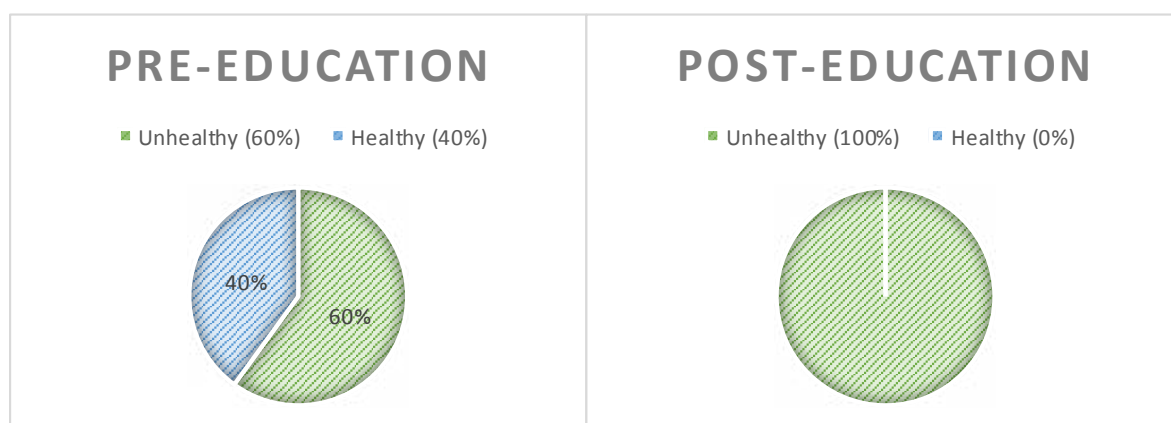


Figure 4. Pre and Post evaluation on if Nutri-grain is healthy or not



In the label reading activity, students were divided into five groups, each tasked with assessing a different category of food labels to determine whether the items were healthy. The varying literacy levels within the classrooms impacted the assistance required, but most students completed the activity with minimal help, successfully ordering foods from healthiest to least healthy.

For the lunchbox activity, students drew or wrote about the contents of their lunchboxes for that day or a typical day. They were then encouraged to apply their learning by making healthy swaps. Common swaps included replacing fruit roll-ups with whole fruit, white bread with wholegrain/wholemeal bread, spreads for cheese or eggs, chips with popcorn, biscuits with fruit, muesli bars with homemade alternatives.

Student evaluation

All students (100%) demonstrated effective label reading skills, aiming for less than 10g of total fat, less than 2g of saturated fat, and less than 5g of sugar per 100g. Many students reported increased knowledge and behavioural changes, such as requesting healthier yogurt options at home, opting for healthier snacks, making their own pizzas, and sharing their new skills with family members.

Teacher evaluation

Refer to Appendix V for details on the teacher evaluation. As shown in Table 2, the satisfaction level for the lesson was high, with no responses indicating disagreement. Suggested modifications from teachers included reducing movement around the room and seating students in groups from the outset. Some teachers recommended minimizing whiteboard writing to maintain engagement and suggested using real-life food packages for students to practice their label reading skills.

Table 2. Teacher evaluation feedback from lesson two

Evaluation Question	Responses & No.				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Do you think the lessons run at an appropriate time length?	100%	-	-	-	-
Was the information delivered easy to understand?	100%	-	-	-	-

Do you think the lessons delivered were at the appropriate class level?	100%	-	-	-	-
Were the lessons interesting and helpful?	100%	-	-	-	-
Do you think the students will change their eating habits as a result of what they have learnt during the program?	-	80%	20%	-	-
How likely are you to recommend this program to others?	100%	-	-	-	-

3.0 Student Survey

During the visit to Aubin Grove Primary School, an opportunity arose to conduct a survey among students to assess their typical breakfast and lunchbox contents. The survey aimed to understand the average food choices for breakfast and lunch among students and was completed by 240 children from grades 4, 5 and 6.

The survey revealed the following key insights regarding breakfast habits:

- Common breakfast items: Toast (56%) and cereal (51%) were the most frequently reported breakfast options.
- Highly processed foods: over half of the students reported regularly consuming highly processed cereals for breakfast.

The survey also explored lunchbox contents:

- Fruit and vegetables: 70% of students had some vegetables in their lunchboxes, while 90% included fruit.
- Lunch Source: 62% of students brought home-packed lunches, and 36% had a mix of canteen and home-packed food.
- Snacks: common snack items included chips (60%), cookies or cake (26%), snack bars (25%), and lollies/chocolates (25%).
- Main Meals: Sandwiches were the most frequently reported lunch item (69%), followed by wraps (26%) and leftovers (25%).
- Sandwich and wrap fillings: cheese (45%) and processed meats (44%) were the most common fillings, often paired together, while spreads accounted for 34%.

The survey responses indicated that while many children included fruits and vegetables in their lunchboxes (the school is a participating crunch and sip school), there was a high

prevalence of processed and discretionary food items, both in snacks and main meals. The results highlight the need for ongoing nutrition education to encourage healthier food choices, particularly in reducing the intake of highly processed foods.

4.0 Recommendations

- Have more of a focus on healthy swaps and what that would look like in a lunch box or at breakfast
- Have food models or use everyday objects for a more interactive and visual portion size example
- Include another hands-on activity during session one to cement learning and make the lesson more engaging
- To increase uptake of the Blue Flame Kitchen make it a requirement.
- Have a bigger focus on healthy swaps throughout both sessions. Snacks are often food children have more control over, thus by providing them with more knowledge around healthy swaps they may be able to start implanting healthy changes in their lives.
- Use more visual aids such as sugar boards to grab student's attention.
- Showing examples of healthy snack alternatives so students can visualise alternative options.
- Improve evaluation methods: potentially have a survey link for both students and teachers fill out.
- Investigate what could improve student application of these lessons, as teachers indicated most students would probably not implement what they learnt.

5.0 Conclusion

In conclusion, the CHSP successfully reached 567 students across five schools in 2024. These schools were selected to target children facing significant socio-educational disadvantages in the local area. Four schools received the same two lessons, and a fifth school received an advanced version, each carefully designed to enhance students' health literacy and empower them to make informed food choices.

The interactive activities demonstrated strong knowledge retention and comprehension among the students, with teacher feedback reflecting high levels of satisfaction with the sessions. The program's success highlights the critical role of nutrition education in primary schools, emphasising its impact on establishing healthy habits early in life. Continued funding and expansion would enable the CHSP to reach an even greater number of children across the City of Cockburn, fostering a healthier future for the entire community.

Appendix I – Lesson Plan 1

CHSP Lesson Plan Session 1 – AGTHE, Chronic disease and diet link

Unit/Topic: Nutrition	Date:
Key Learning Area: Nutrition (health)	Year Level: 5 & 6
Outcomes:	

LESSON OUTCOME:

The Year 5 and 6 curriculum supports students to develop knowledge, understanding and skills to create opportunities and take action to enhance their own and others' health, wellbeing, safety and physical activity participation.

- Being healthy, safe and active: plan and practice strategies to promote health, safety and wellbeing.

By the end of the session's students should be able to confidently identify each of the five food groups and list at least one health benefit received from eating foods from this group. Students will also understand how many serving sizes of each category they need each day, and what this looks like.

Students will also understand the correlation between poor diets and chronic disease with a specific focus on sugar, salt and fat. While also understanding the importance of each of these minerals and nutrients.

LESSON STRUCTURE:

Time	Introduction (Set):	Resources
2 min	Introduction:	Slides (1-2)
5 min	Who am I, why I am here, what we are going to learn?	
	Icebreaker.	
	Option 1: What is your favourite cuisine, stand in the different spots around the classroom (Indian, Mexican, Chinese, Italian, other).	
	Option 2: hands up whose favourite cuisine is ...	
	Option 3: go around the room.	

Time	Main Content:	Resources
5 min	AGTHE Activity Part 1: Split into groups the students will be given a large empty AGTHE chart and cut outs of different foods. They will then be given five minutes to sort out the foods into the correct category.	AGTHE activity part 1: Empty chart Laminated food items
10 min	AGTHE: - How many serves of (each individually) should we be having every day? And what does that look like in real life (ie 2 serves of fruit = one apple and two apricots, or one banana and a handful of berries) - Highlight the importance of each category and what benefits they provide for our health using power point.	Slides (4-8)
5 min	AGTHE Activity Part 2: - Each group will then be given the opportunity to look back at their AGTHE chart and fix anything that might have been in the wrong spot. - They will then work together to complete the match up sheet for serving sizes. <i>Who has tried some of the less common foods from some of these food groups? (think polenta, quinoa, tofu). What influenced you to try these foods?</i>	AGTHE activity Part 2: Laminated serving requirements Laminated health benefits
10 min	Diet and chronic disease relationship: - What happens when we don't eat all five food groups and eat mostly food from our 'sometimes' food group? - What is the importance of sugar? What happens when we eat too much of it? - What is the importance of Fat? What happens when we eat too much of it? - What is the importance of salt? What happens when we eat too much of it?	Slides (10)
10 min	Different types of fat: - Explain that we have two types of fat: Saturated and unsaturated fat. Unsaturated fat is really good for us, it has all the healthy fats that are important for our brain, energy	

	and insulation. Saturated fat is the not so good fat which can cause the chronic diseases we just discussed. Activity 2 – fats - Each group is given a handout of foods containing fats. They are to sort these into two categories. Healthy fat and un-healthy fat. - Finish off with group discussion explaining that unhealthy fats often come from animal products such as cream. And coconut is an exception. Healthy fats come from our plant sources and from fish.	Activity 2: Laminated healthy and unhealthy food sources of fat.
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Time	Conclusion:	Resources
5 min	Quick recap of session. What are the five food groups? What happens when we eat too much sugar? What happens when we eat too much fat? What happens when we eat too much salt? Handout foodbank recipe books and encourage students to go home and try a recipe and we will check in with them next week to see how it went.	

Resources

(Include equipment required for class and/or for teacher preparation)

- Lunch box handout
- Food packages
- Corresponding faces (green, orange and red)
- AGTHE activity: charts, foods, health benefits

EVALUATION

In class evaluation:

- noting the progression of the student's ability to successfully read and order food labels
- Assessing the food swaps which children consider to be a healthier choice

Post evaluation:

Food Group	Health Benefit
Vegetables	- Give us vitamins and fibre that keep us healthy - Decreased risk of CVD - Decreased risk of site-specific cancers - Decreased risk of Type II Diabetes - Reduced risk of weight gain
Fruit	- Give us vitamins and fibre that prevent disease - Reduced risk of coronary heart disease - Reduced risk of stroke - Reduced risk of weight gain (2 serves only) - Some site-specific cancers
Grains and Cereals	- Give us energy and fibre to help digestion - Reduced risk of CVD - Reduced risk of Type II Diabetes - Reduced risk of weight gain - Reduced risk of colorectal cancer
Protein	- Give us protein and iron for strong muscles and blood - Red meat 100-120g/day increases risk of colorectal cancer - Consumption of fish more than once a week decreases risk of dementia - Red meat increases risk of renal cancer and CVD - Consumption of nuts decreases risk of cholesterol
Dairy	- Help us grow strong teeth and bones - Reduced risk of heart disease and myocardial infarction - Reduced risk of stroke - Reduced risk of hypertension - Reduced risk of site-specific cancers - Reduced risk of Type II Diabetes - Improved bone mineral density

Appendix II – Lesson Plan 2 – Label reading and healthy swaps

Unit/Topic: _____	Date: _____
Key Learning Area: Nutrition (health)	Year Level: 5 & 6
Outcomes:	

LESSON OUTCOME:

The Year 5 and 6 curriculum supports students to develop knowledge, understanding and skills to create opportunities and take action to enhance their own and others' health, wellbeing, safety and physical activity participation.

- Being healthy, safe and active: plan and practice strategies to promote health, safety and wellbeing.

By the end of the lesson students will be able to successfully read and comprehend food labels with a specific focus on sugar, salt and fat content. Students will be able to compare food products and determine what are healthier options.

Students will be able to determine healthier swaps for some of their everyday foods.

LESSON STRUCTURE:

Time	Introduction (Set):	Resources
	Reintroduce yourself. Ask if anyone went home and tried any of the recipes from the recipe booklet we handed out at the end of the last session? Who can remember what we learnt last week: Go over key points (record answers): - Five food groups - Diet and chronic disease relationship Sugar – needed for energy. Too much will lead to diabetes, behaviour issues, weight gain, bad teeth Salt – needed for muscles and blood pressure, too much will cause increased BP, heart disease	

	Fat – needed for insulation, hormones and energy. Too much will lead to weight gain, CVD and some site specific cancers - Healthy vs unhealthy fats	
Time	Main Content:	Resources
	Activity 1.1: Lunch Box Activity – Get students to fill out lunchbox/daily food with what they had in their lunch box today (or what a normal day would look like). Go through Slides on food label reading. Activity 2 - Food label reading: Split into five groups. Explain that you want the students to work together to put the smiley faces with the fat/sugar/salt content in each food product according to the guidelines. Once this is completed get students to rank their food items in the order they think is healthiest to least healthy. Once this is done get students to move around the classroom and look at what the other groups have done. Get everyone back together and discuss if anyone was surprised by what they saw, if anyone had any questions. Activity 1.2 - Students then to look again at their lunchbox activity and have a look to see if there might be any swaps they could make to have a healthier lunchbox. Using their imagination, the knowledge they just learnt about snacks/foods and the AGTHE.	

Time	Conclusion:	Resources
	Quick recap of session. What are we looking for in a food label? - Sugar > 5 g / 100g - Fat > 3 g / 100g - Sat Fat > 1.5 g / 100g - Salt/sodium >120 mg / 100 g What might be some healthy swaps we could do in our lunchboxes? Time for final questions.	

Resources

(Include equipment required for class and/or for teacher preparation)

- Lunch box handout
- Food packages
- Corresponding faces (green, orange and red)

EVALUATION

In class evaluation:

- noting the progression of the student's ability to successfully read and order food labels
- Assessing the food swaps which children consider to be a healthier choice

Post evaluation:

Appendix III – Teacher Evaluation



Healthy Schools Program Evaluation

Date: _____

School: _____

Teacher: _____

Year Level: _____

Please circle the response you agree with most

1. Do you think the lessons run at an appropriate time length?

Strongly agree Agree Neutral Disagree Strongly disagree

2. Was the information delivered easy to understand?

Strongly agree Agree Neutral Disagree Strongly disagree

3. Do you think the lessons delivered were at the appropriate class level?

Strongly agree Agree Neutral Disagree Strongly disagree

4. Were the lessons interesting and helpful?

Strongly agree Agree Neutral Disagree Strongly disagree

5. Do you think the students will change their eating habits as a result of what they have learned during the program?

Strongly agree Agree Neutral Disagree Strongly disagree

6. How likely are you to recommend this program to others?

Strongly agree Agree Neutral Disagree Strongly disagree

7. Do you have any suggestions for improvement?
