OPERATION:

Let's Eat More Vegetables

A teaching and learning resource
supporting healthier eating in

Years 5 – 6

Crunch&Sip®

Supported by

healthway

Cancer Council WA

Contents

Welcome!

Crunch&Sip®, in partnership with Healthway and Cancer Council Western Australia are delighted to present, Operation: Let's Eat More Vegetables, a teaching and learning resource supporting healthier eating in young West Australians. This curriculum-aligned resource is designed for educators and developed for students in early childhood and primary school years.

Operation: Let's Eat More Vegetables recognises the potential for all Australians to eat healthier and that most Australians don't eat enough vegetables as shown by Australian health data.

Operation: Let's Eat More Vegetables acknowledges and works with the strengths of family food, culture and nutrition literacy.

Operation: Let's Eat More Vegetables is high quality nutrition education repeatedly offering vegetables through fun experiential learning. Therefore, the aim of the resource is to increase the eating of vegetables in young West Australians, now and into their futures.

More specifically, teaching and learning in the resource will:

- broaden student experiences with vegetables;
- celebrate the food diversity of Australian families and schools; and
- promote the eating of vegetables as everyday foods, for health, wellbeing and lifelong healthier eating.

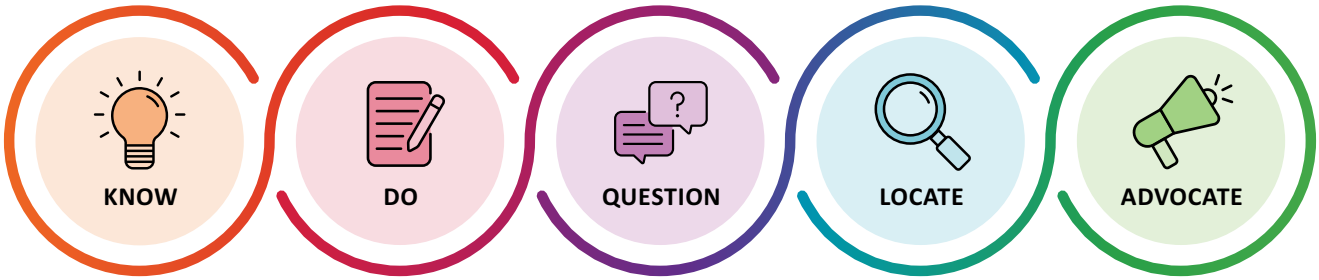
Crunch&Sip®, encourages educators working with this resource to apply professional insight and cultural awareness to further embrace, build and expand student experiences and positive relationships with food and vegetables. Operation: Let's Eat More Vegetables is gender neutral and honours that everyone and all families are unique.

How to use this resource

Operation: Let's Eat More Vegetables consists of eight age-appropriate lessons.

Each lesson contains fun, cognitively-developed and sequential learning activities that build student knowledge, understandings and skills relating to fruit, vegetables, and healthier eating.

Operation: Let's Eat More Vegetables is informed by health literacy with learning across the resource developing students who **know, do, question, locate** and **advocate** for own and others' health.



For more information about how health literacy is developed within this resource, please see page 3.

To support programs in schools, the best way to use this resource is to move from activity to activity, from lesson to lesson and complete all eight lessons. Additional activities can be used to extend the learning or as lesson alternatives. The review lesson can be used as an assessment task to culminate the program.

Educators should:

- consider printing, laminating and cutting out class sets of the vegetable and fruit cards (Appendix 2) as these cards can be used across a range of activities;
- consider requesting parent and carer help as additional support is beneficial to the smooth running of some activities whilst extending learning in food literacy into the home of students; and
- check and confirm student allergies and intolerances to foods used in activities, and that all ingredients are culturally appropriate.

Health Literacy Enabling Framework for School Curriculum

(adapted from Barwood, 2021)

Pedagogy	Teacher Activity	Teaching Method and Learning Activity
 **TO KNOW**	Teacher is the expert sharing factual (theoretical) knowledge	Teacher directed learning with students who are passive recipients of facts and knowledge such as through: • Teacher talk • Brainstorms • Class discussions • Digital media • PowerPoint (digital) presentation • Web quests
 **TO DO**	Teacher is the organiser, guiding the application of knowledge in practice	Teacher and student collaborative in learning, where students apply factual knowledge in practice through participatory and skills-based activity such as: • Hands on practices • Tasting • Trial runs • Puzzles • Role plays
 **TO QUESTION**	Teacher is the facilitator, encouraging critical thinking and questioning	Teacher facilitates individual and group-based learning, where students participate in activities that require them to question, problem solve and make decisions such as: • Responses • Scenarios • Concept mapping • Predictions • Debates • Justifications • Data analysis
 **TO LOCATE**	Teacher is the trusted advisor, advancing self-awareness and a sense of positioning	Teacher promotes meaning making in relation to health of oneself and others by creating learning that contemplates the 'Why' factors. Activities build a sense-of-self and sense-of-belonging such as through: • Critical reflections • Journaling • Future planning • Position statements
 **TO ADVOCATE**	Teacher is the enabler, building sense of citizenship through individual, social and cultural capital	Teacher mentors' students to progress micro and macro health such as: • Request for help • Refusal statements • Narrative to support peer change • Designing local health messages • Strategic planning • Recommendations for the accessing of health care services • The creation of public awareness campaigns Students explore advocacy of safer, healthier, and more physically active living for themselves, peers, family, community, cultural and ethnic groups, and society and the world beyond.

Teaching and learning in Years 5 - 6

Operation: Let's Eat More Vegetables for Years 5 – 6 builds on the learning outlined in the Years 3 – 4 resource but does not require prior learning. Activities within the Years 5 – 6 resource specifically contribute to students who:

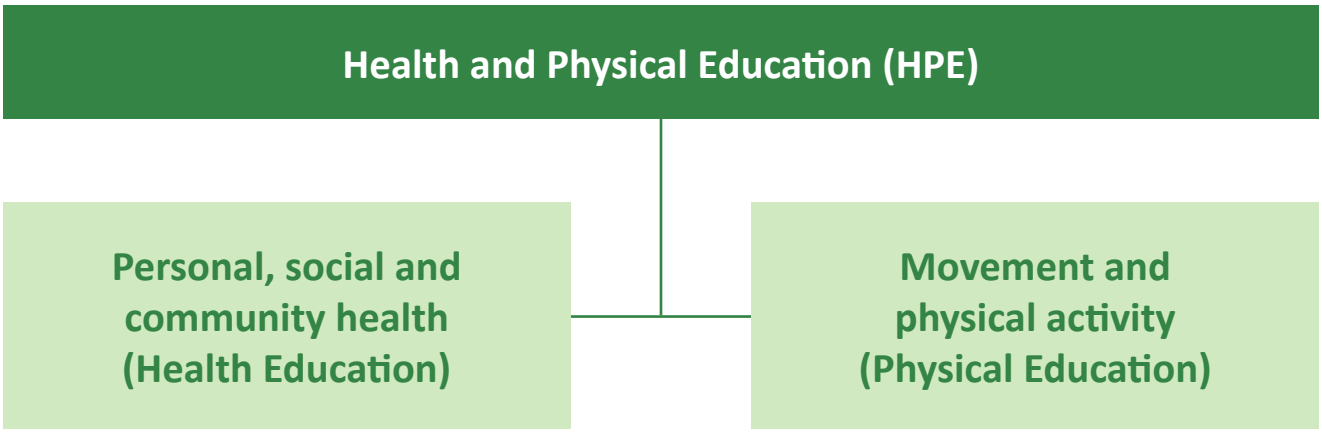
- know vegetables and how they grow;
- know the benefits of vegetables as everyday foods and a healthier food choice;
- appreciate that food and vegetables are culturally connected;
- appreciate the barriers and facilitators to eating more vegetables; and
- plan healthier food choices, now and into the future.

The Western Australian Curriculum

Operation: Let's Eat More Vegetables for Years 5 – 6 is guided by mandated curriculum set out in *The Western Australian Curriculum.*

Health and Physical Education

Learning opportunities situated across the eight lessons of the resource link to content described in the main curriculum learning area of Health and Physical Education (HPE).



Curriculum links to HPE content described in the strand – Personal, Social and Community Health – are mapped on the next page with hyperlinks to the School Curriculum and Standards Authority (SCSA) website.

Note: Dot points that follow a content descriptor are mandated curriculum. However, dot points that follow the text 'such as' are not mandated and considered as suggestions for learning. These dot points can be manipulated or rewritten to suit a specific educational context. Therefore, dot points in red text on the following page have been added as learning to suit and reflect the context of nutrition education.

PERSONAL, SOCIAL AND COMMUNITY HEALTH STRAND									
YEAR 5									
Sub-strand	**Curriculum content description and code**	**Lesson**							
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Being healthy, safe and active	Reliable sources of information that inform health, safety and wellbeing, such as: • internet-based information • community health organisations • public and other media *ACPPS053*; *ACPPS057*					✓		✓	✓
	Strategies that promote a safe, healthy lifestyle, such as: • comparing food labels on products *ACPPS054*	✓		✓		✓		✓	✓
Contributing to healthy and active communities	Preventive health measures that promote and maintain an individual's health, safety and wellbeing such as: • food choices *ACPPS058*	✓	✓	✓	✓	✓	✓	✓	✓
YEAR 6									
Being healthy, safe and active	Criteria that can be applied to sources of information to assess their credibility *ACPPS053*					✓		✓	✓
	Strategies that promote a healthy lifestyle, such as: • improving the nutritional value in meals *ACPPS054*	✓		✓		✓		✓	✓
Contributing to healthy and active communities	Preventive health measures that can promote and maintain community health, safety and wellbeing, such as: • food choices *ACPPS058*	✓	✓	✓	✓	✓	✓	✓	✓

Other Curriculum Areas

Operation: Let's Eat More Vegetables for Years 5 – 6 includes activities that connect to the curriculum areas of English, Humanities and Social Sciences (HASS), Mathematics, Science, Technologies and The Arts. For each lesson, activities are mapped to the SCSA website with hyperlinks for ease of use.

Year 5 connections to other curriculum areas are visually displayed below for quick links.

Learning area	Curriculum content description and code	Lesson							
		1	2	3	4	5	6	7	8
English	Understand how to use knowledge of known words, base words, prefixes and suffixes, letter patterns and spelling generalisations to spell new words *ACELA1513*			✓					
	Plan, draft and publish imaginative, informative and persuasive print and multimodal texts, choosing text structures, language features, images and sound appropriate to purpose and audience *ACELY1704*			✓	✓			✓	✓
	Develop a handwriting style that is becoming legible, fluent and automatic *ACELY1706*			✓	✓	✓	✓	✓	
HASS	The factors that influence purchase decisions (e.g., age, gender advertising, price) and how these decisions affect resource use *ACHASSK121*					✓			
Mathematics	Use efficient mental and written strategies and apply appropriate digital technologies to solve problems *ACMNA291*			✓	✓		✓		
	Pose questions and collect categorical or numerical data by observation or survey *ACMPS118*			✓			✓		
	Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies *ACMSP119*			✓			✓		
Science	Living things have structural features and adaptations that help them survive in their environment *ACSSU043*			✓	✓	✓			
	With guidance, pose clarifying questions and make predictions about scientific investigations *ACSIS231*		✓	✓	✓				

Learning area	Curriculum content description and code	Lesson							
		1	2	3	4	5	6	7	8
Science	Construct and use a range of representations, including tables and graphs, to represent and describe observations, patterns or relationships in data using digital technologies as appropriate *ACSIS090*		✓	✓			✓		
TECHNOLOGIES									
Design and Technologies	People in design and technologies occupations aim to increase efficiency of production systems, or consumer satisfaction of food and natural fibre products *ACTDEK021*				✓	✓			✓
	Food safety and hygiene practices ACTDEK022	✓	✓	✓	✓	✓		✓	✓
Digital Technologies	Create and communicate information, including online collaborative projects, using agreed social, ethical and technical protocols (codes of conduct) *ACTDIP022*						✓	✓	
THE ARTS									
Drama	Dramatic structures to sequence how a story is opened, how events are presented (mood and tension elements) and key details to help the audience understand dramatic meaning *ACADRM035*							✓	✓
Media Arts	Use narrative structures to communicate a point of view for an intended audience *ACAMAM064*							✓	✓
Visual Arts	Development and application of artistic techniques and processes with: shape, colour, line, space, texture, value to create artwork *ACAVAM115*				✓				

Year 6 connections to other curriculum areas are visually displayed below for quick links.

Learning area	Curriculum content description and code	Lesson							
		1	2	3	4	5	6	7	8
English	Investigate how complex sentences can be used in a variety of ways to elaborate, extend and explain ideas *ACELA1522*			✓					
	Identify and explain how analytical images like figures, tables, diagrams, maps and graphs contribute to our understanding of verbal formation in factual and persuasive texts *ACELA1524*			✓					
	Plan, draft and publish imaginative, informative and persuasive text, choosing and experimenting with text structures, language features, images and digital resources appropriate to purpose and audience *ACELY1714*			✓	✓		✓	✓	✓
	Develop a handwriting style that is legible, fluent and automatic and varies according to audience and purpose *ACELY1716*			✓	✓	✓		✓	
HASS	The impact consumer purchasing decisions can have on a family, the broader community (e.g., purchasing from the local growers' market or a supermarket chain) and the environment (e.g., pollution, waste) *ACHASSK150*					✓			
Mathematics	Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers *ACMNA123*			✓	✓		✓		
	Solve problems involving comparison of lengths and areas using appropriate units *ACMMG137*				✓		✓		
	Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables *ACMSP147*				✓		✓		
Science	The growth and survival of living things are affected by physical conditions of their environment *ACSSU094*			✓	✓	✓			
	With guidance, pose clarifying questions and make predictions about scientific investigations *ACSIS232*		✓	✓	✓				

Learning area	Curriculum content description and code	Lesson							
		1	2	3	4	5	6	7	8
Science	Identify, plan and apply the elements of scientific investigations to answer question and solve problems using equipment and materials safely and identifying potential risks *ACSIS103*		✓	✓			✓		
TECHNOLOGIES									
Design and Technologies	Past performance, and current and future needs are considered when designing sustainable food and fibre systems for products *ACDEK021*				✓	✓			✓
	Principles of food preparation for healthy eating ACTDEK022	✓	✓	✓	✓	✓	✓	✓	✓
Digital Technologies	Manage the creation and communication of information, including online collaborative projects, using agreed social, ethical and technical protocols *ACTDIP022*						✓	✓	
THE ARTS									
Drama	Dramatic action (the driving and forward motion of drama to create dramatic meaning) driven by narrative structure and dramatic tension *ACADRM035*							✓	✓
Media Arts	Use narrative structures to create tension and engage an audience *ACAMAM064*							✓	✓
Visual Arts	Development and application of artistic techniques and processes with: shape, colour, line, space, texture, value to create artwork *ACAVAM115*				✓				

General Capabilities

Operation: Let's Eat More Vegetables for Years 5 – 6 draws on the general capabilities described in the Australian Curriculum. Learning opportunities within the Years 5 – 6 resource work to develop the following capabilities.

	1	2	3	4	5	6	7	8
Literacy	✓	✓	✓	✓	✓	✓	✓	✓
Numeracy	✓		✓	✓		✓	✓	
ICT capability		✓		✓	✓	✓		✓
Critical and creative thinking	✓	✓	✓	✓	✓	✓	✓	✓
Ethical understanding				✓	✓			
Personal and social capability	✓	✓	✓	✓	✓	✓	✓	✓
Intercultural understanding	✓	✓		✓	✓	✓		✓

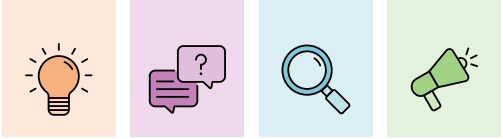
More information regarding the general capabilities is available at
https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/

Resource overview

Lesson		Lesson overview	Health literacy
1	Vegetables are an everyday food	Students examine vegetables as everyday foods supporting health and wellbeing.	TO KNOW TO QUESTION TO LOCATE TO ADVOCATE
2	Vegetables and my body	Students learn the parts of the digestive system and how food is changed as it moves through the body.	TO KNOW TO DO TO QUESTION
3	Vegetables are edible plants	Students explore the growth cycle of vegetables to inform planting and harvesting of food crops.	TO KNOW TO DO TO QUESTION TO ADVOCATE
4	Growing vegetables	Students plan and plant a vegetable garden to learn growing vegetables can contribute to more sustainable living.	TO KNOW TO DO TO QUESTION TO LOCATE TO ADVOCATE
5	Farm to Fork	Students explore vegetable production through the concepts of 'Farm to Fork' and 'Food miles'.	TO KNOW TO DO TO QUESTION TO ADVOCATE
6	Vegetable varieties	Students explore vegetable varieties and the cultural origins of some vegetables.	TO KNOW TO DO TO QUESTION TO LOCATE TO ADVOCATE
7	Vegetables – Fuel for bodies	Students explore vegetables as an important fuel for bodies and the place of vegetables and fruit as part of a healthy balanced diet.	TO KNOW TO DO TO QUESTION TO LOCATE TO ADVOCATE
8	Together in the kitchen	Students share a cooking experience to celebrate food and food literacy. They explore new ways of using vegetables.	TO KNOW TO DO TO QUESTION TO LOCATE TO ADVOCATE
Review		Students revisit key learning points to conclude the program.	

LESSON 1:

Vegetables are an everyday food



Lesson overview

In this lesson students examine vegetables as everyday foods supporting health and wellbeing now and into the future. They identify the qualities in vegetables promoting health benefits.

Learning intentions

- Understand that vegetables are everyday foods and eating a variety of vegetables can support health and wellbeing
- Understand that vegetables contain nutrients, minerals and fibre, which provide energy to run and play, help young people grow, feel good and keep from getting stick
- Understand that food choices today support health and wellbeing now and into the future
- Appreciate that all families are different and that different people eat different and similar foods

Curriculum links

YEAR 5					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS054 *ACPPS058*				ACTDEK022	

YEAR 6					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS054 *ACPPS058*				ACTDEK022	

General capabilities

- Literacy
- Numeracy
- Critical and creative thinking
- Personal and social capability
- Intercultural understanding

Resources

- ☐ Appendix 1 – Parent/Carer letter
- ☐ Appendix 2 – Vegetables and fruit cards
- ☐ Worksheet 1 – Vegetable and fruit alphabet
- ☐ Worksheet 2 – Being healthy and well
- ☐ PowerPoint 1 – Vegetable and fruit quiz

- [ ] *15 Ways to Crunch&Sip®*
- [ ] *Don't forget to pack Crunch&Sip® every day*

Preparation

- [ ] Send parent/carer letter before the program to support content – Appendix 1
- [ ] Check and confirm that students do not have allergies or intolerances to any of the foods used and all ingredients are culturally appropriate
- [ ] Obtain access to an audio visual device for PowerPoint and online viewing material
- [ ] Print and laminate Appendix 2 (use for multiple lessons)
- [ ] Print Worksheet 1 – one per student, pair or small group
- [ ] Print Worksheet 2 – one per student
- [ ] Print 15 Ways to Crunch&Sip® – one per student
- [ ] Print 'Don't forget to Crunch&Sip® every day' for parents/carers
- [ ] Explore slide animations for PowerPoint 1. Consider reducing or adding context-focused slides
- [ ] Prepare a vegetable platter for sharing

Educator support notes

- Health is more than the absence of disease, taking into consideration the state of physical, mental and social wellbeing. The *Australian Institute of Health and Welfare* note that a person's health is dependent on the determinants that influence health (wealth, environment, education, etc), and the actions and resources taken to support, improve and maintain health.
- *Wellbeing* – the state of being satisfied, happy and/or healthy. Relates to effective social functioning and spiritual health and the dispositions of optimism, openness, curiosity and resilience.
- What does healthy and well look like? Discourage students from focusing on physical representations of healthy and well like the concept of slim or muscular. Try to direct the conversation toward activity-driven notions of what healthy and well might look like. For example, ability to work part-time at the local supermarket for five hours without sitting down or take the stairs at a building rather than take the lift.
- Vegetables contain nutrients (vitamins, minerals and fibre) and no one nutrient is more important than the other. Eating across the colour group (rainbow) of vegetables provides the greatest health benefits.
- Vitamins and minerals in vegetables can stop us from getting sick. They help us feel healthy, provide energy to run and play, and help us grow and think clearly.
- Fibre in vegetables helps to keep our belly/stomach feeling full and contributes to us being able to toilet regularly. Vegetable fibre stops us from getting constipated.
- Vegetable Quiz – use the quiz in Activity 2 to ascertain student knowledge of vegetables. Redevelop, reduce or add slides to suit context.

- Some examples of vegetables from different colour groups and some of the key nutrients they contain are shown below:

Colour group	Vegetable examples	Key nutrients
RED	Tomato, red capsicum, red kidney beans, radish, red skinned potato, red onion, red cabbage	Phytonutrients like lycopene, carotenoids and flavonols. Some red vegetables are also high in vitamin C.
YELLOW and ORANGE	Carrot, pumpkin, sweet potato, orange and yellow capsicum, corn, squash, swede, yellow tomatoes	Carotenoids like beta-carotene, lutein and zeaxanthin. Some orange and yellow vegetables also contain good amounts of vitamin A, potassium and vitamin C.
GREEN	Spinach, broccoli, Asian greens, celery, green capsicum, asparagus, cabbage, Brussel sprouts, peas, cucumber, avocado, lettuce, zucchini, kale, green beans, snow peas, sugar snap peas, artichoke, gherkin	A range of phytonutrients including carotenoids, flavonoids and indoles (cabbage, bok choy and broccoli). Leafy greens also contain folate and vitamin K.
BLUE and PURPLE	Eggplant, beetroot, purple cauliflower, purple carrot, purple cabbage, purple asparagus, purple potato, purple capsicum, kohlrabi, purple lettuce	The purple-blue hue shows the presence of anthocyanin, an antioxidant.
WHITE and BROWN	Cauliflower, onion, chickpeas, lentils, leeks, mushroom, potato, garlic, ginger, parsnip, turnip	Commonly contain inulin and allium sulphur compounds. Some members of this group are a source of potassium, vitamin C and folate.

Crunch&Sip® supporting resources

- ☐ To support student participation in this program of work see: *Overcoming barriers to participation* by Crunch&Sip®
- ☐ *How to Crunch&Sip® A guide for teachers* explains Crunch&Sip®
- ☐ Visit *what to do if students don't bring Crunch&Sip®*
- ☐ Additional resources and teacher materials are available at *Crunch&Sip®*

Activities

Activity 1: Do I know vegetables?

1. Begin by asking students to name a vegetable. Discuss.
2. Distribute Worksheet 1 and invite students to complete in small groups (could complete individually or pairs if preferred).
3. Ask students:
   - Who has eaten a vegetable or vegetables today?
   - What vegetable(s)? Why?
   - In what way was/were the vegetable(s) prepared and eaten?
   - Could the preparation of the vegetable be changed to promote variety?
   - Could vegetables be added to the meals? In what ways?
   - How could we promote/facilitate the eating of vegetables and more vegetables?
4. Record on the whiteboard the vegetables that the students ate. Discuss differences and similarities between the students. Discuss vegetable preferences.
5. Working in small groups, distribute one piece of white paper (A3 or A4 size). Instruct students to create four columns and label as breakfast, lunch, dinner and snacks. Ask students to brainstorm how and what vegetables are eaten at each meal. Consider setting a timeframe per column and inviting students to share the content brainstormed.
6. Explore and discuss:
   - The most common vegetable eaten at breakfast, lunch, dinner and for a snack.
   - The most common vegetable eaten.
   - The least common vegetable eaten.
   - The most preferred time for vegetables to be eaten in a day and why?
7. Distribute five post-it-notes to each group:
   - Instruct groups to brainstorm five strategies to help children and young people eat more vegetables in their diets.
   - Post the five strategies onto a whiteboard and group similar strategies together.
   - Discuss strategies and invite groups to select the top three strategies from the strategies on the board. Write response on three new post-it-notes.
   - Re-post notes to identify the top three strategies, grouping similar strategies together and collate the responses.
   - Re-organise the strategies into the most to least popular strategy. Remind students that the least popular strategy is still the third most popular way to increase vegetables in our diets. Discuss.
8. Remind students that families eat a range of vegetables. Families are different but families are also similar. Some families eat the same vegetables but some families eat different vegetables. All families are unique and this makes families special.
9. Tell students that vegetables are good to eat. We can eat vegetables and fruit every day. Vegetables and fruit help us feel good, they give us energy to run and play, help us grow and keep from getting sick. Vegetables and fruit are everyday foods.

Activity 1: Do I know vegetables? *(continued)*

10. ***Provocation:***
    - What conditions promote/disrupt the consumption of vegetables?
    - What meals support or inhibit the eating of vegetables? Why?
    - In what other ways could vegetables be added to meals?
    - Why are family eating behaviours similar or different?

11. ***Option:*** Explore what people from different cultures/countries eat for breakfast by watching the online learning resource by *Phenomenon: Webisode E01 The One with the Levitating Globe*.

Activity 2: Vegetable quiz

1. Split students into small groups.

2. Use PowerPoint 1 and work through each slide. Reveal answers using the slide animations. Discuss and unpack student responses.

3. Remind students that vegetables are full of nutrients, fibre, minerals and water. Eating vegetables every day is an action and choice supporting our bodies and giving us:
    - energy to run and play
    - brain power to think and concentrate
    - growing power to be get bigger and strong
    - mending power to repair our bodies when we are injured or sick
    - protection to keep us from getting sick

4. For the last slide. Ask:
    - Does your family eat these vegetables?
    - Are there vegetables that your family does not eat? Why or why not?
    - Is there a vegetable you do not know?
    - Is there a vegetable you would like to try?

5. Distribute the Vegetables and fruit cards (Appendix 2) and ask students to sort: vegetables and fruit they know verses those they don't. Re-sort based on other concepts like colours, and where the vegetable is grown (above, below or along the ground).

6. ***Provocation:***
    - Why are family eating behaviours similar or different?
    - Are vegetables linked to culture or family heritage? Why?

Activity 3: Everyday foods verses sometimes foods

1. Distribute Worksheet 2 and instruct students to mingle to find a student name to complete the task for each bingo box. Tell students that each box must have a different student name. When completed discuss:
   - What box was easy to fill?
   - What box was difficult to fill?
   - Were there any boxes that couldn't be filled? Why?

2. Ask students:
   - Who likes to feel healthy and well?
   - Why it is important to be healthy and well?

3. Ask students to share what healthy and well 'feels like' and 'looks like'. Record student responses using a T-chart drawn on a whiteboard. Use the below as a guide:

Healthy and well feels like...	Healthy and well looks like...
• Full of energy • Clear mind • Strong • Stamina	• Being active • Concentrating in class • Physically fit • Playing a full game

4. ***Provocation:***
   - What choices can we make to support being healthy and well?
   - Why is it important to make health supporting choices now and into the future?
   - How does eating healthy support how we feel?

5. Tell students that everyone needs to eat food and drink water to survive but our food choices and what we eat can support how we feel and the way(s) our bodies work.

6. Explain: All foods are not the same. Some foods we eat are not necessary for health and wellbeing but we like to eat them from time to time. These foods are called 'sometimes' foods. Eating too much of these types of foods can impact our health and the way we feel. For example, feel sluggish with less energy. We should only eat these foods 'sometimes' like on a weekend, on a special occasion such as a birthday or from time to time as a treat.

7. Ask students to finish the sentence in their journals/books: *We don't eat sometimes food every day because...*

8. Invite students to share examples of everyday foods and sometimes foods (these could also be added to their journals/books). Discuss.

9. Ask students to imagine what it might feel like to eat sometimes foods as everyday foods. Invite students to rate how they might feel using a scale of either 1 – 5 or 1 – 10 (1 = not good, 5 or 10 = excellent). Consider pointing to the front of the room and identifying the front as a rating of 5 or 10 (feeling excellent). Point to the back of the room and identify this space as a rating of 1. Ask students to move to a place along an imaginary scale representing how they might feel to the following:
   - Energy levels from eating sometimes foods everyday.
   - Concentration levels from eating sometimes foods everyday.
   - Strength levels from eating sometimes foods everyday.
   - Ability to fight colds and sickness from eating sometimes foods everyday.
   - Ability to bounce back from an injury from eating sometimes foods everyday.
   - General feeling of wellness from eating sometimes foods everyday.

Activity 3: Everyday foods verses sometimes foods *(continued)*

10. Remind students it's ok to eat sometimes foods from time to time because no food is bad food but eating sometimes foods everyday can impact how we feel and the way out bodies work. Eating sometimes foods only sometimes is best for health and wellbeing.

11. Tell students that vegetables are everyday foods. Eating vegetables every day is an action and food choice we make to support our health and wellbeing. Eating vegetables every day can provide us with:
    - energy to run and play
    - brain power to think and concentrate
    - growing power to be get bigger and strong
    - mending power to repair our bodies when we are injured or sick
    - protection to keep us from getting sick

Activity 4: Crunch&Sip®

1. Every student must wash and dry hands.

2. Distribute 'Don't forget to Crunch&Sip® every day' to students.

3. Conduct a class discussion on Crunch&Sip® using the following questions as a guide:
    - What is Crunch&Sip®?
    - Why do we eat and drink Crunch&Sip®?
    - What kinds of foods are suitable for Crunch&Sip®?
    - What can we sip on?
    - Why choose vegetables instead of fruit for Crunch&Sip®?

4. Distribute '15 Ways to Crunch&Sip®' and discuss.

5. Break for Crunch&Sip® and distribute the vegetable platter. Invite students to try but don't force. Discuss taste, texture, smell, appearance and preparation.

6. Remind students to grab a drink of water.

7. Distribute the vegetable and fruit cards (Appendix 2) and invite students to sort into vegetables and fruit they know and don't know. Discuss. Invite students to share the vegetables they would like to try and consider recording this information for future lessons.

8. ***Provocation:***
    - Why are vegetables and fruit everyday foods?
    - Does it matter what we eat today, tomorrow? Why?
    - Why are vegetables good for health and wellbeing?
    - In what ways does Crunch&Sip® support health and wellbeing.

9. Tell students that they can ask for more vegetables and fruit by putting up a hand and using the words: "Can I please have more?" Allow students to ask for more.

Additional activities

1. Create a spelling list to include vegetables and fruit.
2. Online viewing: *Foods we need to eat less often*.
3. *Vegetables for kids trivia quiz* – online

 Apple	 Apricot	 Asparagus	 Avocado	 Banana
 Beetroot	 Bitter Melon	 Blueberries	 Broccoli	 Capsicum
 Carrot	 Cauliflower	 Celery	 Corn	 Cucumber
 Daikon	 Dates	 Eggplant	 Fennel	 Fig
 Garlic	 Globe Artichoke	 Grapes	 Honeydew Melon	 Iceberg Lettuce
 Jackfruit	 Kiwi Fruit	 Kumara	 Leek	 Lemon

Mandarin

Mango

Mushroom

Nashi Pear

Nori

Okra

Onions

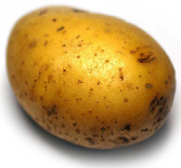
Orange

Pawpaw

Pear

Peas

Pineapple



Potato

Pumpkin

Quandong

Quince

Radish

Rockmelon

Snow Peas

Starfruit

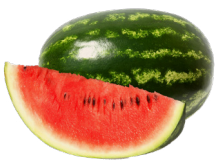
Strawberry

Tamarillo

Tomato

Turnip

Vine Leaves



Watermelon

Warrigal Greens

Wombok

Yams

Zucchini

A	**B**	**C**	**D**aikon 	What am I? **E**_____ 
F	What am I? **G**_____ 	**H**	I'm a type of lettuce! **I**_____ 	**J**alapeno 
K	**L**	**M**	**N**_____ is a type of pear. 	**O**
P	**Q**uandong is an important bush fruit that has many purposes.	**R**	**S**	**T**
Ugli fruit is real!	**V**anilla is used to flavour ice cream and is a fruit.	**W**asabi plants are used to make a hot paste for Japanese foods.	Carrots give you **X**ray vision.	**Y**_____ I'm often called sweet potato! 
Z	My favourite vegetable is: _____	A vegetable that I have not tried is: _____	A vegetable that I would like to try is: _____	The vegetable I eat the most is: _____

Find someone who has eaten a pear!	Find someone who has the letter 'A' in their name.	Find someone who likes sweet corn!
Find someone who has cleaned their teeth!	Find someone who walked to school!	Find someone who ate a vegetable at breakfast!
Find someone who has eaten zucchini!	Find someone who is healthy and well!	Find someone who likes mushrooms!
Find someone who has a pet!	Find someone who is shorter than you!	Find someone who eats vegetables for lunch!
Find someone who has eaten beetroot!	Find someone who likes bananas!	Find someone who can name an everyday food!

Can you place the name of a different student in each bingo box?

LESSON 2:

Vegetables and my body

Lesson overview

In this lesson students learn the parts of the digestive system and how food is changed as it moves through the body. The lesson is delivered in an interactive and fun way to facilitate student comprehension of the topic and make the information memorable.

Learning intentions

- Understand that vegetables are everyday foods and eating a variety of vegetables can support health and wellbeing
- Understand that vegetables contain nutrients, minerals and fibre, which provide energy to run and play, help young people grow, feel good and keep from getting stick
- Understand that food choices today support health and wellbeing now and into the future
- Understand that taste buds develop with age and contribute to food preferences
- Understand that the body breaks down food by a process called digestion
- Appreciate that all families are different and that different people eat different and similar foods

Curriculum links

YEAR 5					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS058			*ACSIS231* *ACSIS090*		

YEAR 6					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS058			*ACSIS232* *ACSIS103*		

General capabilities

- Literacy
- ICT
- Critical and creative thinking
- Personal and social capability
- Intercultural understanding

Resources

- ☐ Obtain access to an audio visual device for online viewing material
- ☐ Online video of a guessing game – *Can you guess the vegetable by the emoji*
- ☐ Appendix 3 – Vegetable riddles

- [ ] Worksheet 3 – The vegetables I like
- [ ] Worksheet 4 – The digestive system
- [ ] Vegetables – 4-5 carrots, 2 potatoes, ½ head of broccoli, ½ zucchini
- [ ] Appendix 4 – Bottle labels
- [ ] PowerPoint 2 – Digestive system or Worksheet 4 – Digestive system
- [ ] Sandwich size zip lock bags – one per student pair
- [ ] 1 pair of kitchen gloves
- [ ] 2 sauce dispenser bottles
- [ ] Large bowl with dispensing spout
- [ ] Newspaper or plastic mat
- [ ] Baking tray
- [ ] 1 pair of sheet beige coloured pantyhose

Preparation

- [ ] Pre-watch the online guessing game and if preferred, reduce timeframe by deleting quiz questions (the questions get more difficult as they progress)
- [ ] Obtain access to an audio visual device for online viewing material
- [ ] Obtain access to PowerPoint display
- [ ] Print Appendix 3 – one educator copy
- [ ] Print Worksheet 3 – one per student
- [ ] Ask parents/carers to donate Activity 2 items – zip lock bags, kitchen gloves, sauce dispenser bottles, large bowl with dispensing spout, newspaper of plastic mat, baking tray, pantyhose and vegetables
- [ ] Cut the pantyhose at the top end to separate into tow tubes
- [ ] Print 'Bottle labels' and cut out
- [ ] Fill sauce dispenser bottles with water and glue. Label one 'Digestive enzymes' and the other Hydrochloric acid'
- [ ] Chop carrots into veggie sticks (ensure there is one stick per student). Place raw carrot into a sealed container
- [ ] Chop remaining vegetables into large pieces, boil until very soft, drain, and allow to cool. Place cooked vegetables int a sealed container
- [ ] Cover an area of the classroom with newspaper/plastic mat or find an appropriate are outside (e.g., picnic table) and place the baking tray on top

Educator support notes

- Riddle option – Only use this version of the activity if appropriate for your class. This version can assess what the students know and don't know about vegetables.
- Taste buds – As we grow older our taste buds develop. They don't physically change or increase in number but their sensitivity changes. This development allows us to distinguish and tolerate different flavours like bitter or salty flavours. We can train the taste buds to become more accustomed to eating different flavours like something spicy or hot. This is why it is important to keep trying vegetables that we don't like because eventually we will like them. Being able to eat a range of vegetables is the best way to get all of the different nutrients that are in vegetables.
- If confident, consider telling stories of vegetables you didn't like as a child but now like as an adult.
- The most notorious vegetable that people dislike as a child but like as an adult is the Brussels sprout.
- Like flavour, vegetable texture can also be a deterrent for some people and explain why some don't like mushrooms whilst others do.
- The digestive system breaks down, digests and excrete wastes from the food we eat. It runs from the mouth to the anus. Some parts of the digestive system mash food like a food processor into smaller parts (mouth). The stomach then churns mashed food into a slushy liquid (stomach). Digestive juices or enzymes are combined with the substances to speed up the process so that molecules (nutrients) can be absorbed easily into the bloodstream. These molecules travel in the blood to all of the body's cells, where they are used for growth, repair and energy. Those molecules that are not useful are excreted.

Activities

Activity 1: Riddles and ladder

1. Start the lesson by reminding students that vegetables are everyday foods. Eating vegetables every day is an action and food choice we make to support our health and wellbeing. Vegetables are full of nutrients and eating vegetables every day can provide us with:
   - energy to run and play
   - brain power to think and concentrate
   - growing power to be get bigger and strong
   - mending power to repair our bodies when we are injured or sick
   - protection to keep us from getting sick
2. Remind students that drinking water is also beneficial for health.
3. Show the online video: *Can you guess the vegetable by the emoji* and play the fun guessing game in small groups. Discuss and unpack the answers (they get harder).
4. Read the riddles from Appendix 3 and invite students to answer individually, in pairs or in small groups. Share the answers.

   Option: take the students outdoors for the riddle game and form students into a horizontal line where students stand alongside and not behind each other. Read the riddle and for each correct answer the students move forward. If the answer is incorrect the students don't move.
5. Distribute Appendix 2 – the vegetable and fruit cards. Instruct students to select six of their favourite vegetables.
6. Distribute Worksheet 3 and instruct students to complete. Allow students to share their ladders with other students in the class.
7. Tell students that as we grow and getter older the taste buds on our tongue develop and mature so that we start to like different tastes especially more bitter foods. This explains why we children don't like some foods and some vegetables.
8. Remind students that families eat a range of vegetables. Families are different but families are also similar. Some families eat the same vegetables but some families eat different vegetables. All families are unique and this makes families special.

Activity 2: Digestion

1. Ask students if they know what the word digestion means. Explain that digestion is the process of breaking down the food we eat into nutrients that we can absorb into our body to give us energy, help us grow, and keep us healthy. The digestive tract can be thought of as a long tube going from your mouth to your bottom (anus). As food travels from one end of the tube to the other it is broken down by a number of different processes.
2. Give each student a piece of raw carrot and ask them to slowly chew. Ask the class what happened to the carrot as they chewed (mixes with saliva, breaks into smaller pieces). Explain that the first step in digestion occurs when the teeth break up food into tiny particles which we then swallow. Saliva mixes with the food making it easier to chew and swallow.

Activity 2: Digestion *(continued)*

3. Tell students that after food is swallowed it goes down the oesophagus (gullet) into the stomach. Indicate the position of the oesophagus and stomach on the 'Digestive system diagram' and ask students to find the approximate position of these organs on their body.

4. Explain that in the stomach food is further broken down. The stomach is a muscular bag that churns up the food to break it up even further. The stomach adds a liquid called hydrochloric acid which is used to kill any bugs that may have taken a ride on our food. This helps protects us from becoming sick.

5. Give each pair of students a zip lock bag. Place a few pieces of the cooked vegetables into each bag. Squirt a small amount of the 'hydrochloric acid' into each zip lock bag. Tell students to make sure the bag is tightly sealed. Ask students to predict what will happen to the contents of the bag if it is squeezed (vegetables lose their structure, mix together, form a paste) and how they think this relates to what happens in the stomach. Allow students to gently squeeze the contents of the bag. Ask the class to compare their predictions to what actually happened.

6. After 3-4 hours of being churned in the stomach food moves into the small intestine. The small intestine squirts enzymes onto our food that allows the nutrients to be released. Nutrients are tiny particles that you can't see with the naked eye or even under a normal microscope! Nutrients include carbohydrates, proteins, fats, vitamins and minerals. In the small intestine nutrients are absorbed into the body. Once absorbed into the body they can be used to give us energy, help us grow, and keep us healthy. Demonstrate the position of the small intestine on the 'Digestive system diagram' and ask students to find the approximate position of this organ on their body.

7. Squirt a small amount of the 'digestive enzymes' into each zip lock bag. Tell students to make sure the bag is tightly sealed before squeezing the bag again.

8. Explain that after the small intestine food enters the large intestine. Demonstrate the position of the large intestine on the 'Digestive system diagram' and ask students to find the approximate position of this organ on their body.

9. Tell students that lots of liquid was added to the food as it moved along the digestive tract and it is the job of the large intestine to absorb this liquid back into the blood to stop us getting dehydrated.

10. Put on a pair of kitchen gloves. Gather all the zip lock bags and empty into the bowl. Place the pantyhose on the baking tray. Ask students to predict what will happen to the mixture as it goes from one end of the tube to the other (pantyhose is porous so water will come out, mixture will become more solid as it moves along the tube). Pour the vegetable mixture into the top end of the pantyhose and tie off. Slowly squeeze the mixture from one end of the pantyhose to the other. Ask the class to compare their prediction to what actually happened.

11. Explain to students that only a small amount of what we eat remains when it gets to the end of the digestive tract. Ask students what the mixture that remains is called (poo) and what the last section of the digestive tract is called (rectum/anus).

12. The vegetable mix can be put into the school compost bin or fed to a worm farm. Explain to students that these methods turn food waste into a garden fertiliser that can be used to help other plants to grow. By composting food waste or feeding it to worms we recycle the food waste into a useful product rather than letting it go into landfill.

Activity 2: Digestion *(continued)*

13. Consider accompanying this learning with an online video such as:
    - *Dr Binocs Show on the Digestive System*
    - *Food's incredible journey*
    - *Kid's health – Digestive system*
14. Now is a good time for a Crunch&Sip® break!

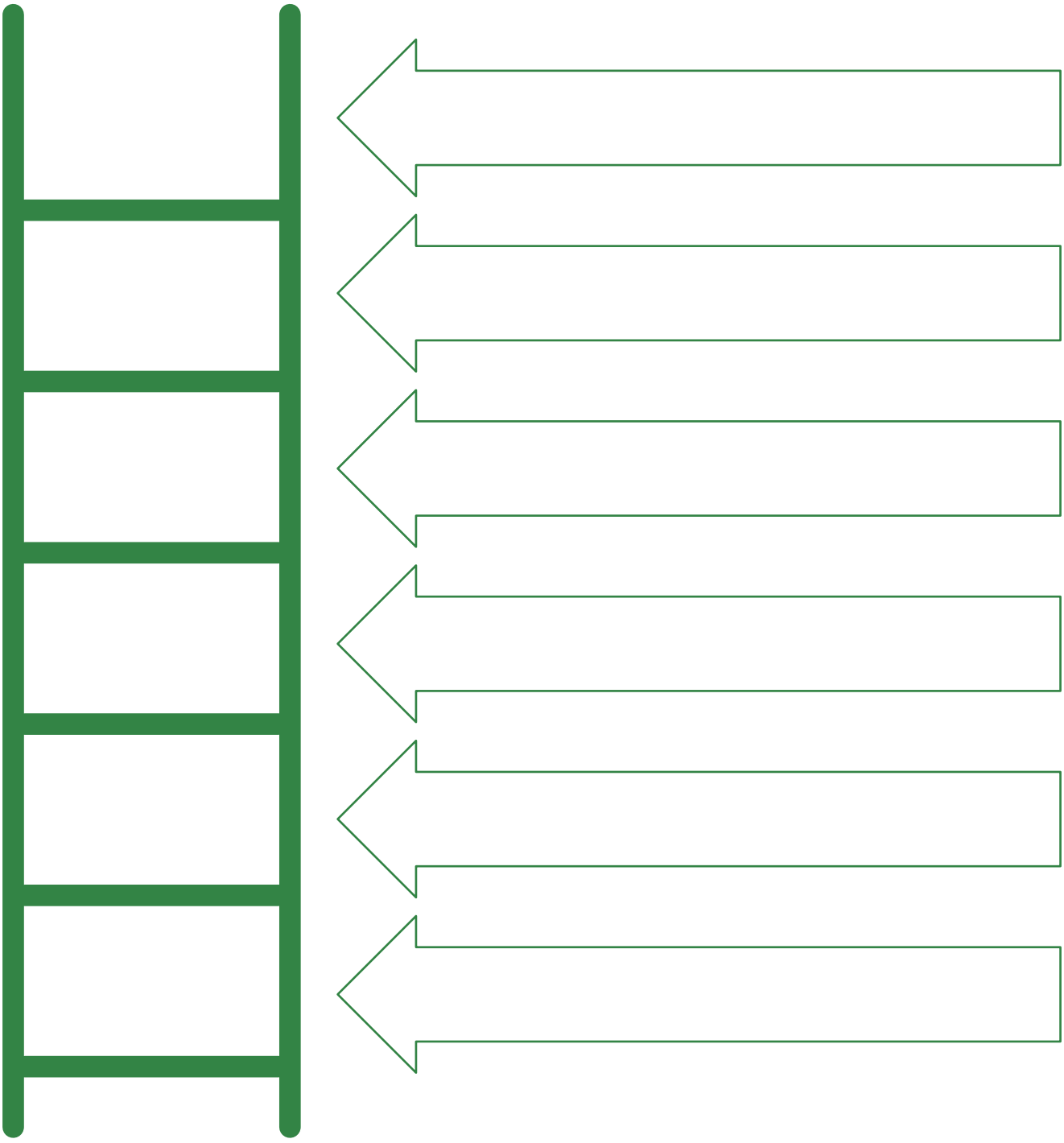
Additional activities

1. Create a 2D or 3D digestive system using craft supplies such as string, cotton wool, popsicles, beads, craft paper, wrap, glitter, paper bags, feathers, pipe-cleaners, pom-pom balls, cork, foam, felt glue and sticky tape. Display in the classroom.
2. Update the spelling list to include parts of the digestive system.
3. Play the *Digestion game* to teach the body parts involved in digestion.
4. Visit the *dkfindout web page* and click on the parts of the digestive system to find out more.

What is the coolest and grooviest vegetable? **Rad-ish**	I'm a spooky vegetable with lots of seeds! **Pumpkin**	Some call me little tree! **Broccoli**	I'm green with a huge seed. I grow on trees! **Avocado**
I'm a root vegetable with three syllables! **Potato**	I have a heart but it does not beat! **Artichoke**	Cut me and I stain your hands! **Beetroot**	Jack loved me! **Bean**
I'm not a plant but a fungi. I love the dark! **Mushroom**	I'm sweet and round but people love to ski on part of me! **Snow pea**	I'm the coolest vegetable around! **Cucumber**	My first sound is the name for a male cat! The rest you need to work out! **Tomato**
I'm always sad because I make people cry! **Onion**	I'm the frilly green one that grows on the ground! **Lettuce**	I'm mostly full of water and a stem vegetable! **Celery**	I can sometimes go pop under the right conditions! **Corn**
I'm not really Kob yohc but... **Bok choy**	I sound like garbage but I'm super healthy **Cabbage**	I'm so sweet but a friend in my family is so hot! **Capsicum**	You'll see me on a snowman! **Carrot**

On each step on the ladder, write the name of your six favourite vegetables but don't forget to order the vegetables (least to most). At the top of the ladder is your most favourite vegetable!

Within each arrow, tell us why you love this vegetable!



Tell us here, the vegetables your family eat the most!

LESSON 3:

Vegetables are edible plants

Lesson overview

In this lesson students explore vegetables as edible plants and the growth cycle of plants to inform the harvesting of vegetable crops. They examine the growth period of different edible plants (vegetables).

Learning intentions

- Understand that vegetables are part of an edible plant and different vegetables come from different parts of an edible plant
- Understand that plants grow above, below and along the ground
- Understand that plant growth varies
- Plant microgreens to compare plant growth

Curriculum links

YEAR 5					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS054 *ACPPS058*	*ACELA1513* *ACELY1704* *ACELY1706*	*ACMNA291* *ACMSP118* *ACMSP119*	*ACSSU043* *ACSIS231* *ACSIS090*	ACTDEK022	

YEAR 6					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS054 *ACPPS058*	*ACELA1522* *ACELA1524* *ACELY1714* *ACELY1716*	*ACMNA123*	*ACSSU094* *ACSIS232* *ACSIS103*	ACTDEK022	

General capabilities

- Literacy
- Numeracy
- Critical and creative thinking
- Personal and social capability

Resources

- ☐ Appendix 1 – Parent/Carer letter
- ☐ Appendix 2 – Vegetables and fruit cards
- ☐ Appendix 4 – List of digital recording for online viewing
- ☐ PowerPoint 3 – Vegetables and fruit are edible plants

- [ ] Worksheet 5 – Knowing about edible plants
- [ ] Worksheet 6 – Recording vegetable growth
- [ ] Worksheet 7 – Growing microgreens and recording growth data
- [ ] Vegetable platter – include vegetables that are root, stem, leaves, flower, fruit and seed
- [ ] Collection of *Microgreen seed varieties*
- [ ] Containers (consider using berry containers) or any reusable/recyclable container
- [ ] Paper towels, soil and water spray bottles

Preparation

- [ ] Send parent/carer request for help with Activity 3 and supplementary resources including vegetables (platter) and microgreen growing resources (strawberry and/or berry containers, paper towels and growing soil)
- [ ] Obtain access to PowerPoint display for PowerPoint
- [ ] Obtain access to audio visual device(s) for viewing online material
- [ ] Print Worksheet 5, 6 and 7 – one per student
- [ ] Purchase microgreen seed varieties and grow some microgreens

General capabilities

- Plants grow in, above and along the ground.
- Plant growth cycle = seed, root, shoot, stem, leaves, flower, fruit and seeds. The seed sprouts roots and a shoot (seedling). The shoot develops a stem and grows leaves (small plant). The plant continues to grow to produce flowers and fruit (adult plant).
- Time lapsed digital recordings – some recordings allow vegetable growth to be viewed through clear containers, specifically showing the first sign of root growth. Other recordings do not enable root growth to be viewed due to the use of coloured containers. Therefore, for some vegetables, the start of root growth may not be compared with others.
- Foods are healthy for most people but some foods can make people sick. For more information see *Allergy & Anaphylaxis Australia* and specifically, *allergyAware* for a great range of school resources suitable for students in years 5 – 6.
- Lots of online videos share 'ways' to grow microgreens such as *Growing microgreens is a genius gardening project for kids*.
- Check out other sites for more information:
  - » *How to grow microgreens*

Activities

Activity 1: Edible plants

1. Every student must wash and dry hands.
2. Ask students to share what they know about edible plants? Discuss.
3. Show PowerPoint 3 and use the animations on slide 2, 3, 4, 5 and 6 to reveal information.
4. Distribute Appendix 2 and instruct students to sort according to parts of the plant.
5. Distribute Worksheet 5 and instruct students to complete. Discuss.
6. Distribute the vegetable parts platter and encourage students to try but don't force.
7. Remind students that vegetables are everyday foods. They help us feel good, give us energy to run and play and help us grow and keep from getting sick. Choosing vegetables supports health and wellbeing.
8. ***Option:***
   - Play ABC Education's *Plant Scan Game*.
   - Watch the online video *Plant parts and function for kids*.
9. ***Extension:***
   - Develop a spelling list using vegetable names and terms.
   - Students develop informative text to describe the growth cycle of an edible plant.
10. ***Provocation:***
    - Are all plants edible? Are some edible plants, edible for all individuals?
    - Under what conditions are edible plants not edible for certain individuals?
11. Tell students that they can ask for more vegetables by putting up a hand and using the words: "Can I please have more?" Allow students to ask for more.

Activity 2: Vegetable growth

1. Split students into small groups.
2. Introduce students to the concept of time-lapsed digital recordings showing vegetable growth from seed to fruit or seed to bulb, etc.
3. Show the online digital recording: *Growing purple peas - pea to pod*. Discuss.
4. Re-show and invite students to identify the day of growth for each vegetable part:
   - roots
   - shoot
   - stem
   - leaves
   - flower
   - fruit
   - harvest

Activity 2: Vegetable growth *(continued)*

5. Distribute Worksheet 6 and Appendix 4. Organise students for online viewing. Instruct groups to record data from the digital recordings.

6. ***Option:***
   - Allow students to view and record data for each recording (most recordings are short), or
   - Allocate one recording to a group and instruct them to record data.
   - Share and record data as a whole class.

7. ***Extension activities:***
   - Use data and pose questions regarding vegetable growth with or without the use of digital technologies.
   - Construct data displays such as column graphs and/or dot plots.
   - Solve mathematical problems with data.
   - Compare and order data.
   - Describe observations and relationships in the data.
   - Prepare informative text to share findings.

Activity 3: Comparing microgreen growth

1. Show students previously grown microgreens. Distribute and allow them to examine and taste. Alternatively, show an online video showing microgreens like *Growing microgreens is a genius gardening project for kids.*

2. ***Ask:***
   - Can you see the roots?
   - Can you see the remnants of the original seed?
   - What stage of the growth cycle is this?
   - Can you estimate how long it has taken for these microgreens to grow?
   - Describe the taste?

3. Consider recording student estimation as a fun competition and come back to this information when student microgreens are ready.

4. Explain that the class will be growing microgreens as an experiment using two different growing mediums and microgreen varieties (as many as preferred). Predictions will be made prior to seed germination such as growth rate, growth height and taste. Following planting, growth and taste data will be compared across different mediums and microgreen varieties.

5. ***Option:***
   - Pair students – student one grows microgreens using a paper towel, student two grows using soil, or
   - Split students into groups (depending on class size and microgreen varieties). For each microgreen variety as per above, group one (paper towel) and group two (soil).

6. Distribute containers, seeds and growing medium.

Activity 3: Comparing microgreen growth *(continued)*

7. Instruct students to prepare microgreens for growing.
    - Label container with name.
    - Place paper towel or soil into the container.
    - Spray water onto growing medium.
    - Sprinkle microgreen seeds evenly.
    - Spray again.
    - Place in sunny area.
    - It's time to watch the seeds grow.
8. Distribute Worksheet 7 and over the following week allow students to record growth data.
9. Remind students that the microgreen seeds are just like them, they need the right conditions to grow. These seeds need a safe place to grow, water and sunlight. Over the next few days allow students to intermittently spray the seeds with water to rehydrate paper towel but don't overly soak.
10. 10. Allow students to take home when grown or consider using for a Crunch&Sip® break.
11. ***Extension activities:***
    - Use data and pose questions regarding microgreen growth with or without the use of digital technologies.
    - Construct data displays such as column graphs and/or dot plots (place side by side).
    - Solve mathematical problems with data.
    - Compare and order data.
    - Describe observations and relationships in the data.
    - Prepare informative text to share findings.

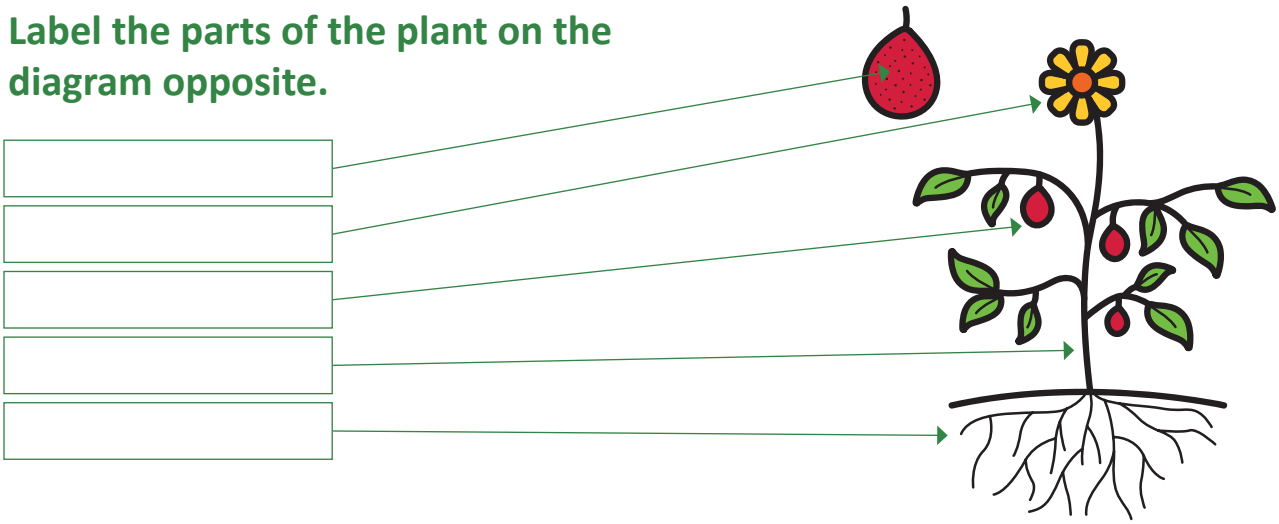
Optional activity

1. Use the microgreens to create three incredible types of sandwich. Go to Crunch&Sip® for these awesome recipes using microgreens.
    - *Salad sandwich*
    - *Chicken pesto chunky roll*
    - *Winter vegie sandwich*

Additional activities

1. Watch ABC Education – Kids in the Garden:
    - Episode 2: *How seeds become plants*
    - Episode 4: *Plant leaves*
    - Episode 6: *Why plants make fruit*

1. Label the parts of the plant on the diagram opposite.



2. Fill in the missing words below.

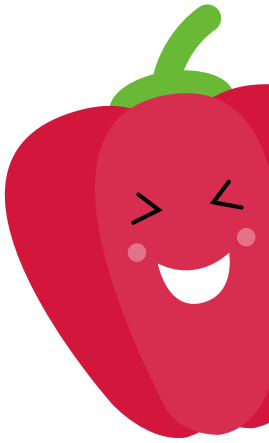
Vegetables and fruit are _ _ _ _ _ _ plants. They come from different _ _ _ _ _ of a plant. Some vegetables like a tomato and capsicum are actually the _ _ _ _ _ of an edible plant.

3. List vegetables for each part of a vegetable plant.

Roots	
Stem	Asparagus,
Leaves	
Flower	Cauliflower, broccoli, zucchini flower
Fruit	
Seeds	

4. List vegetables for each growing location

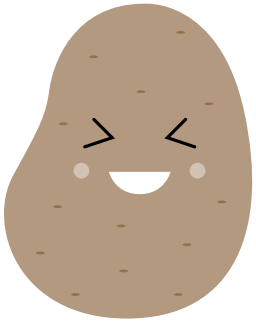
In the ground	
On the ground	Pumpkin,
Above ground	
On a tree	Avoca_ _



Growing capsicum (bell pepper) - seed to fruit

Growing chilli (jalapeno) - from seed to fruit

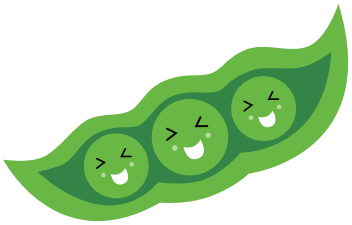
Growing cucumber - seed to fruit



Growing purple peas - pea to pod

Growing potatoes underground

Growing radish - seed to bulb

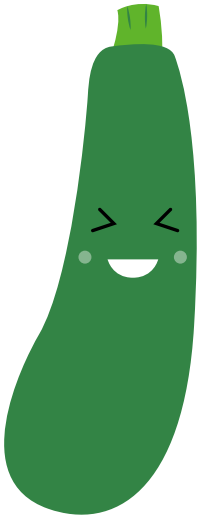


Growing baby eggplant - seed to fruit

Growing dwarf pea - pea to pod

Growing spinach - seed to harvest

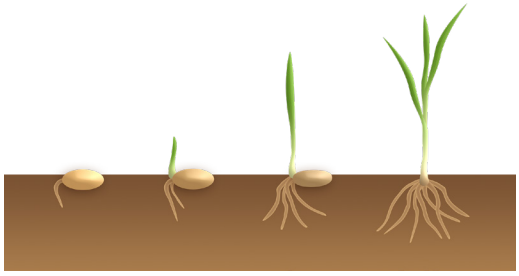
Growing carrot - from seed



Growing zucchini - seed to fruit

Growing beetroot - seed to bulb

Growing Swiss chard - seed to harvest

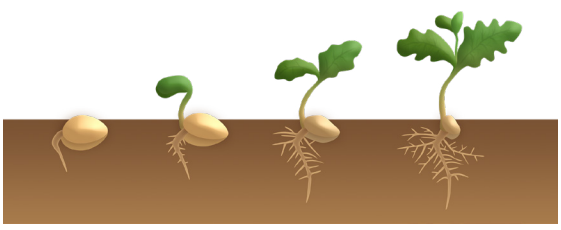


Record the day number for the growth of each part of the below vegetables.

	VEGETABLE GROWTH						
VEGETABLE	ROOT	SHOOT	STEM	LEAVES	FLOWER	FRUIT	HARVEST
Capsicum							
Chilli							
Cucumber							
Purple peas							
Potatoes							
Radish							
Baby eggplant							
Dwarf pea							
Spinach							
Carrot							
Zucchini							
Beetroot							
Swiss chard							

Identify the vegetable with the shortest time to grow a:

- Root _____
- Shoot _____
- Stem _____
- Leaves _____
- Flower _____
- Fruit _____



The vegetable with the quickest growth to harvest is:

_____

The vegetable with the longest growth to harvest is:

_____

What is the time difference in days between the shortest time taken to grow to the longest time?

_____

On each day, measure and record the height (H) and weight (W) of the microgreens.

		DAYS OF THE WEEK													
Microgreen variety	Growth medium	1		2		3		4		5		6		7	
		H	W	H	W	H	W	H	W	H	W	H	W	H	W
Variety 1	Paper														
	Soil														
Variety 2	Paper														
	Soil														
Variety 3	Paper														
	Soil														
Variety 4	Paper														
	Soil														
Variety 5	Paper														
	Soil														
Variety 6	Paper														
	Soil														
Variety 7	Paper														
	Soil														
Variety 8	Paper														
	Soil														

LESSON 4:

Growing vegetables

Lesson overview

In this lesson students identify the factors required for plant growth. They plan a vegetable garden and plant their own seeds and seedlings. Students learn that growing vegetables can contribute to a more sustainable future. This hands on learning is designed to engage students and increase their understanding of how the food they eat is produced.

Learning intentions

- Understand that plants have a growth cycle
- Understand that vegetables can be grown from seeds and seedlings, and some vegetables can be grown from food scraps
- Understand that Western Australia has prime conditions for growing vegetables but some vegetables are seasonal
- Appreciate that plants need care and the right conditions to grow
- Appreciate that growing your own vegetables is a more sustainable way of living

Curriculum links

YEAR 5					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS058	*ACELY1704* *ACELY1706*	*ACMNA291*	*ACSSU043* *ACSIS231*	*ACDETK021* ACTDEK022	*ACAVAM115*

YEAR 6					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS058	*ACELY1714* *ACELY1716*	*ACMNA123* *ACMMG137* *ACMSP147*	*ACSSU094* *ACSIS232*	*ACDETK021* ACTDEK022	*ACAVAM115*

General capabilities

- Literacy
- Numeracy
- ICT
- Critical and creative thinking
- Personal and social capability
- Ethical understanding
- Intercultural understanding

Resources

- ☐ Online digital recording *Phenomenon: Episode 12 Onions special part 1 Soil health*
- ☐ Appendix 1 – Parent/Carer letter
- ☐ Appendix 2 – Vegetable and fruit cards (laminated from previous lessons)

- [ ] Appendix 4 – Vegetable images (for plant cards)
- [ ] PowerPoint 4 – Planning and growing vegetables
- [ ] Vegetable platter – choose seasonal produce
- [ ] Worksheet 8a – Planning a vegetable garden
- [ ] Worksheet 8b – Planning and calculating a vegetable garden
- [ ] *Plant growing guides* for Worksheet 8b
- [ ] Plant cards (A5 white card)
- [ ] Seeds, seedlings, vegetable label and planting equipment (pots, polystyrene boxes, soil, and tools)
- [ ] *Potato growing underground* – time lapse digital recording
- [ ] *Regrowing celery from scraps* – time lapse digital recording
- [ ] Old potatoes, avocado seed and celery

Preparation

- [ ] Re-Send parent/carer request (Appendix 1) for assistance with Activity 2 and equipment donations and/or loans
- [ ] Obtain access to an audio visual device for online viewing material
- [ ] Obtain access to PowerPoint display for PowerPoint
- [ ] Prepare vegetables for the platter
- [ ] Print either Worksheet 8a or 8b – one per student
- [ ] ***Option:*** print vegetable images for vegetable cards from Appendix 5
- [ ] Collect donations and equipment for Activity 2
- [ ] Prepare celery for sharing

Educator support notes

- Plants need the right conditions to grow. Most plants need soil, sunlight, water, air and food (nutrients) to grow. However, these conditions differ from plant to plant, for example, some plants don't need soil to grow such as pea sprouts.
- Plants grow in, above and along the ground.
- Plant growth cycle = germination of seed, sprout, seedling, plant, flowers, plant with fruit and fruit with seeds. The seed sprouts roots and a shoot (seedling). The shoot grows a stem and leaves (small plant). The plant continues to grow to produce flowers, fruit and seeds (adult plant).
- Plants make food through a special process called photosynthesis. Photosynthesis is a process where plants convert light from the sun into food. Photosynthesis is a bit like a recipe where special ingredients are used to make plant food. Photosynthesis takes place in the leaves of a plant. Leaves contain chlorophyll (a substance that gives leaves their colour), which traps the sunlight to produce food.
- Sustainability is a cross-curriculum priority for study in the Australian Curriculum. For more information see *Sustainability (Version 8.4)*

Activities

Activity 1: Planning a vegetable garden

1. Begin by asking students:
   - Do you have a vegie garden, vegie patch or grow vegetables at home? Or, do you know someone who grows their own vegies?
   - What vegetables do you or others' grow?
   - Why do people grow their own vegies?
   - Do home grown vegetables taste different?
   - Would you like to grow your own vegies? Any particular vegies? Why?
2. ***Provocation:***
   - What do we need to consider when growing vegetables?
   - What conditions support vegetable growth?
   - What is sustainable living and why is it important?
3. Ask the class what things plants need to grow (soil, sunlight, water, air, nutrients). Relate that plants are like children and need the right conditions to grow. Students need food, water, sleep, care, safety and lots of love to grow. Plants need soil, sunlight, water, air, nutrients and care to grow.
4. ***Option:*** to support learning, show the online digital recording from *Phenomenon: Episode 12*. This episode focuses on growing onions and soil health. Discuss.
5. Show PowerPoint 4 and work through the slides using slide animations. Discuss.
6. At Slide 13, explain to the students that they are going to plan a vegetable garden but there are a few things that need to be considered:
   - What vegetables do you want to grow? What are your needs and likes/dislikes?
   - What vegetables can and should not be planted with other vegetables?
   - How to plant the vegetables?
7. Brainstorm with the class vegetables that their families/home situation eat. Create a list on the whiteboard. Discuss differences in family vegetable needs /likes/dislikes and how this impacts choices when selecting and growing vegetables at home.
8. ***Provocation:***
   - In what ways does family and culture impact food choices?
   - Are some vegetables linked to culture and/or country?
   - What vegetables are synonymous with culture and/or country?
9. Remind students that Western Australia has great vegetable growing conditions and that most vegetables, if they are taken care of properly, can grow most times of the year. However, some vegetables and fruit are considered seasonal because they grow better at different times of the year like strawberries and green beans. During summer strawberries are big, plump and juicy, and during winter they don't grow as big. Discuss seasons and seasonal vegetables.
10. Distribute the vegetable platter with seasonal produce and invite students to try but don't force.
11. Distribute Appendix 2 – Vegetable and fruit cards for students to refer.

Activity 1: Planning a vegetable garden *(continued)*

12. ***Option:***
    - Distribute Worksheet 8a – students plan a vegetable garden focusing on plant selection, plant combinations and creating vegetable artwork (consider concepts of shape, colour, line and space in artwork).
    - Distribute Worksheet 8b – students similarly plan a vegetable garden but are required to calculate the amount of vegetables grown in each garden bed.
13. Display vegetable garden plans around the classroom.
14. ***Extension:***
    - Calculate cost per vegetable from seed and/or seedling.
    - Compare home grown vegetable cost to an imaginary or factual supermarket cost – per vegetable.
    - Calculate number of weeks of vegetable produce per garden per packet.
    - Develop planting schedule to support vegetable produce over a certain timeframe.
15. Tell students that they can ask for more vegetables by putting up a hand and using the words: "Can I please have more?" Allow students to ask for more.

Activity 2: Planting a vegetable garden

1. This activity is best supported with parent/carer supervision.
2. Inform students that today they will be planting vegetable seeds and seedlings. Over the coming weeks they will record vegetable growth and enjoy the vegetables.
3. Show students the online video *Kids in the Garden, Episode 9: Vegetable gardens*. Discuss.
4. Divide the class into pairs or small groups. Assign each pair/group a type of vegetable.
5. Distribute seeds, seedlings, planting equipment and a label for their vegetable plant.
6. Instruct pair/group to read the information on the packet or seedling such as the depth to plant the seed, preferred growing conditions and time to harvest.
7. ***Option:***
    - Distribute plant card and plant image.
    - Instruct students to identify significant information from the seed packet or seedling.
    - Instruct students to re-develop the information for a short paragraph to be written on the card. Cut and glue vegetable image on card.
    - Instruct students to write vegetable name on the front and their names on the back of the vegetable label.
8. Ask class to recall what plants need to grow (sunlight, water, air/oxygen, and nutrients/fertiliser). Ask students to recall photosynthesis.
9. Ask students to predict which vegetable will grow the fastest and which will grow the tallest. Consider recording predictions.

Activity 2: Planting a vegetable garden *(continued)*

10. Make sure everyone is SunSmart before going outside.
11. Plant seeds/seedlings into the pots/polystyrene garden or prepared school garden bed. Water and label vegetables.
12. Choose a time each week to record observations about plant growth. Ask students to discuss what kind of things can be observed or measured (e.g., when seedling emerges from the soil, height, number of leaves, colour, rate of growth).
13. Record the first set of observations on Worksheet 9.
14. Decide on a watering roster.
15. Clean up the potting area and put away any tools used. All students must wash and dry hands.
16. Once the data has been collected over a number of weeks, each student will construct a line graph on graph paper showing the changes in the height of their plant over time. As a class:
    - Compare the growth rate of different types of vegetables.
    - Identify which type of vegetable grew the fastest and which grew the tallest.
    - Come up with possible reasons for any unexpected findings e.g., if two radish had vastly different growth rates.
17. Remind students that vegetables can be eaten every day and are an everyday food. We can eat vegetables and fruit every day because they help us feel good. Vegetables give us energy to run and play, they help us grow and keep from getting sick. We also drink water to survive.
18. Enjoy the vegetables.

Activity 3: Growing vegetables from food scraps and vegetables

1. Every student must wash and dry hands.
2. Inform students that some vegetables can be grown from a vegetable like a potato and some can be grown from parts of a vegetable plant like celery. Other vegetables need to be grown from the plant's seed like an avocado. However, some vegetables like a root vegetable cannot be grown from parts of the original vegetable because once the vegetable root has been removed a new plant can't regrow. For example, a carrot. Once you remove the root vegetable from the carrot plant, it can't regrow but you can grow a plant that will produce seeds from planting carrot tops. A carrot top if planted can grow leaves and if grown for long enough will produce flowers and then seeds but not a carrot.
3. ***Provocation:***
    - Why would vegetables be regrown from scraps?
    - What is sustainable living and why is it important?
    - In what other ways can we support sustainable living?
4. Show the potato and allow students to examine the root buds. Ask students have they seen potatoes like this before. Explain that most families at some time will have a potato like this in the pantry but parents/carers will remove the root buds through peeling and in preparation for cooking. Potatoes with root buds are older potatoes that are ready to be planted but they still can be eaten.

Activity 3: Growing vegetables from food scraps and vegetables *(continued)*

5. Show the digital time-lapsed recording of potato growth by *BoxLapse*. Discuss and remind students that the production of larger potatoes requires the plant to be left to grow for longer.
6. Show the students a celery plant and cut off the base of the plant. Ask the students to brainstorm where the new celery plant might grow. Discuss.
7. Show the students the digital time-lapsed recording of celery being regrown by *eLapse*. Discuss.
8. Place the celery base into a bath of water and invite the students to observe plant growth over the coming weeks.
9. Distribute Worksheet 10 and invite students to create a newspaper story about a character who regrows vegetables from scraps. Discuss:
   - Narrative type – informative, conversational.
   - Character – traits, circumstance, personal beliefs.
   - Vegetable – reason for selection (personal preference, cultural significance, etc).
   - Story line – reasoning for regrowing the vegetable.
   - How – the steps taken to regrow a vegetable.
   - Conclusion – the benefit of regrowing vegetables.
10. Break for Crunch&Sip® and invite students to taste the celery but don't force. Enjoy.
11. Tell students that they can ask for more celery by putting up a hand and using the words: "Can I please have more?" Allow students to ask for more.

Additional activities

1. Watch Phenomenon's – *Episode 20: The one with the old boot*
2. Watch ABC Education – Kids in the Garden:
   - Episode 1: *Healthy dirt makes healthy plants*
   - Episode 5: *How plants work*
3. Play the *Fresh food runner game* by Alimentarium
4. Watch Save your kitchen scraps: *These 7 plants can be grown out of them*

Assignment or extension activity

1. Assign each student a different vegetable grown in Australia (e.g., broccoli, capsicum, carrot, lettuce, onions, potatoes, tomatoes, beans). Students are to research key information about growing that vegetable in Australia such as total amount grown, main areas grown and preferred growing conditions. AUSVEG is a great online resource about vegetable production in Australia that students can use for this task. See *AUSVEG Educational Resources*. See *AUSVEG Australian vegetable production statistics*.

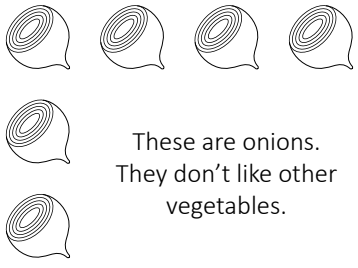
Want to take the next step in growing a vegetable garden in your school?

1. Radishes and salad greens are a great vegetable to start with when gardening with children as they are quick to grow and can be planted most of the year.
2. Check out the *Stephanie Alexander Garden Foundation* resources to help get you started with a kitchen garden or other great projects and check out the *Instagram* page for inspiration.
3. Apply for *Junior Landcare Grants* to get garden beds or other garden projects started at your school
4. Many local councils offer school groups the opportunity to apply for a small grant to fund projects such as developing a food garden, composting system or worm farm. Visit the website of your local Government council for further details.
5. Check out Bunnings *Garden Corner* for more information on growing plants. Alternatively and when permitting, Bunnings regularly helps schools and kindergartens by providing hands on assistance with their projects. If you would like further information contact *Bunnings Workshop Community* or visit your local Bunnings store.
6. *Beyond Gardens* deliver garden workshops for school and community groups throughout the Perth Metropolitan area and Regional WA.
7. Rural, Remote and Indigenous Gardens is an evolving and dynamic space sharing knowledge of garden projects to support food security and wellbeing. Use an Internet search engine to explore, and expand this space.
8. The Eon Foundation build edible gardens in remote Aboriginal schools and communities for more information go to *Growing Healthier Communities*.

1. **List the vegetables you would like to grow here!**

2. **For each garden bed, draw or plot your vegetables.**
3. **Carefully consider what plants you plant together!**

Each garden bed is 3 metres X 1 metre



These are onions. They don't like other vegetables.

Name and plot/draw the vegetables you want to grow

4. **List the vegetables you would like to grow here!**

5. **In each garden bed, draw or plot your vegetables.**
6. **Consider what plants you are planting together.**
7. **If you can, go to the website and calculate how many vegetables you can plant in the garden bed. WOW! Look how many onions you can plant!**

Each garden bed is 3 metres X 1 metre

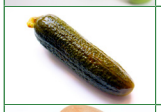
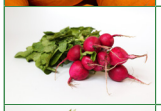
Onions need to be planted 15cm apart with each row 25cm apart. So this garden bed has room for 3 rows of 63 onions!

XXXXXXXXXXXXXXXXXXXXX = 21
XXXXXXXXXXXXXXXXXXXXX = 21
XXXXXXXXXXXXXXXXXXXXX = 21

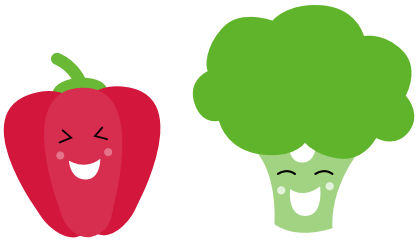
Name and plot/draw the vegetables you want to grow

Go to the link below to find information about growing vegetables
https://www.growveg.com.au/plants/australia-and-nz/

	Artichoke
	Asparagus
	Beetroot
	Bok choy
	Broccoli
	Brussels sprouts
	Cabbage
	Capsicum
	Carrots
	Cauliflower
	Celery
	Chilli
	Corn
	Cucumber
	Eggplant
	Garlic
	Green Beans
	Kale

	Leeks
	Lettuce
	Mushroom
	Onion
	Parsnip
	Peas
	Pickle or Gherkin
	Potatoes
	Pumpkin
	Radish
	Rhubarb
	Silverbeet
	Spinach
	Spring onion
	Snow peas
	Tomato
	Turnip
	Zucchini

Record observations each week about the growth of your vegetable plant. You could also take photos of your plant each week to create a photo diary!

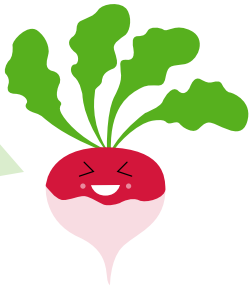


Week	Observations	
1	Height	
	Number of leaves	
	Insects present	
	Colour	
	Other	
2	Height	
	Number of leaves	
	Insects present	
	Colour	
	Other	
3	Height	
	Number of leaves	
	Insects present	
	Colour	
	Other	
4	Height	
	Number of leaves	
	Insects present	
	Colour	
	Other	
5	Height	
	Number of leaves	
	Insects present	
	Colour	
	Other	

6	Height	
	Number of leaves	
	Insects present	
	Colour	
	Other	
7	Height	
	Number of leaves	
	Insects present	
	Colour	
	Other	
8	Height	
	Number of leaves	
	Insects present	
	Colour	
	Other	
9	Height	
	Number of leaves	
	Insects present	
	Colour	
	Other	
10	Height	
	Number of leaves	
	Insects present	
	Colour	
	Other	

FUN FACT!

Radishes are one of the fastest growing vegetables taking just six weeks from planting the seed to harvesting.



Develop a newspaper story about a character who grows vegies from scraps.

Draw your character here!

Draw your character here!

Create a plan here.
Use dot points and list how and why your character grows a vegetable from scraps.

HOW	WHY

Create your story here...

LESSON 5:

Farm to fork

Lesson overview

In this lesson students explore the production of vegetables through the concept, 'Farm to Fork'. They learn simplified processes in the food chain: production, harvest, market and consumption, and the advantages and disadvantages of food travelling long distances to reach the consumer. Students play an educational game supporting healthier food choices.

Learning intentions

- Understand that some vegetables are seasonal and/or dependent on climatic conditions
- Understand that 'Farm to Fork' refers to the processes and production where produce is moved from the farm to the table
- Understand that 'Food miles' refers to the distance travelled by food, from where it is grown to where it is eaten
- Appreciate that locally grown produce contributes to more sustainable living

Curriculum links

YEAR 5					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS053 *ACPPS054* *ACPPS057* *ACPPS058*	*ACELY1706*	*ACHASSK121*	*ACSSU043*	*ACDETK021* ACTDEK022	

YEAR 6					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS053 *ACPPS054* *ACPPS057* *ACPPS058*	*ACELY1716*	*ACHASSK150*	*ACSSU094*	*ACDETK021* ACTDEK022	

General capabilities

- Literacy
- ICT
- Critical and creative thinking
- Personal and social capability
- Ethical understanding
- Intercultural understanding

Resources

- ☐ Appendix 1 – Parent/Carer letter
- ☐ Vegetables – Leek, shallot, spring onion, garlic, onion and chives

- [ ] Online viewing – *Leeks: from Farm to Fork*
- [ ] *Mini veggie frittatas* Crunch&Sip®
- [ ] Vegetable and food labels
- [ ] *Farm to Fork Educational Game* by Edith Cowan University (ECU)
- [ ] Worksheet 11 – Farm to fork
- [ ] Worksheet 12 – Food miles

Preparation

- [ ] Obtain access to an audio visual device for online viewing material
- [ ] Download and install *Farm to Fork Educational Game (ECU)* onto tablet devices
- [ ] Re-send parent/carer letter (Appendix 1) to support content in Activity 1 (Mini Veggie Frittatas) and for the collection of vegetable and food labels for Activity 2
- [ ] Check and confirm that students do not have allergies or intolerances to any of the foods used and all ingredients are culturally appropriate
- [ ] Print Worksheet 11 and 12 – one per student
- [ ] Prepare Mini Veggie Frittatas

Educator support notes

- Farm to Fork – refers to processes in the food chain beginning with food production and ending with consumption.
- *Leeks: from Farm to Fork* – Although this video is produced by the British supermarket giant Tesco, it is short, informative and very engaging, which makes it suitable for use in schools. Consider accompanying this video with discussion regarding the production of vegetables in other countries. Don't forget to remind students of the season and seasonal differences between the United Kingdom and Australia. For lots more Farm to Fork and growing videos by Tesco see Additional Activities.
- *Farm to Fork ECU Educational Game* – This downloadable game is available through the App Store.
- Food miles is the distance between where a food was grown or produced to where it was eaten.
- Mini Veggie Frittatas – check for egg allergy across the students enrolled in the class.

Activities

Activity 1: Farm to fork

1. Every student must wash and dry hands.
2. Ask students if they ever go shopping for vegetables with their parents/carers (e.g., at the supermarket, greengrocer or growers markets).
3. Ask students if they know where vegetables come from before they arrive at the shop (grown on farms or market gardens, transported by road, rail, air or sea).
4. Ask students if they have ever heard of the term 'Farm to Fork'. Brainstorm what the term means and unpack the term.
5. Show the online video *Leeks: from Farm to Fork*. Discuss the steps in the production process and the seasonal differences between the United Kingdom and Australia.
6. Show and allow students to examine (taste, smell and touch) a leek, shallot, spring onion, garlic, brown onion and chives (if available, present as whole and chopped). Explain that these vegetables can be eaten on their own as the main focus of a dish like in French Onion Soup but normally, these vegetables are used to flavour or enhance other foods like a pasta sauce. Explain that onions and garlic because they are strong in flavour are an acquired taste that develops with age and with the maturity of our taste buds. This is why some children and young people don't like the taste of these vegetables and why we normally add only a small amount to recipes.
7. Distribute the mini veggie frittatas and encourage students to try but don't force. Remind students that adding vegetables into foods is a great way to increase the consumption of vegetables in our diet.
8. Ask the students:
   - Can you taste the leek? Pumpkin?
   - What other meals/foods include leeks and pumpkin?
   - What did the farmer use to plant the leek seeds in the field?
   - What did the pickers do when harvesting the leeks in the field?
   - What happened to the leeks when they were placed on the rig before they were put into crates?
   - Where did the leeks go after being put into the crates?
9. Tell students that adding vegetables to other foods is a great way to get more vegetables into our diets and that eating a rainbow of vegetables provides the best health benefits.
10. Distribute Worksheet 11 and instruct students to document the processes involved in the production of leeks from farm to fork.
11. ***Option:*** Play the educational game *Farm to Fork* created by ECU.
12. Tell students that they can ask for more frittatas by putting up a hand and using the words: "Can I please have more?" Allow students to ask for more.

Activity 2: Food miles

1. Inform students that vegetables sometimes travel long distances from where they are grown to where they are sold due to seasonal produce or climatic conditions. For example, some vegetables and fruits are grown in other states and/or territories in Australia like Pineapples, which are mostly grown in hot climates such as Queensland and Mexican garlic, which is grown in Mexico. For produce like this to reach us the produce can sometimes travel very long distances by train, boat or plane, which takes a lot of fuel. Food miles is a term that is used to describe the distance between where a food was grown or produced and where it was eaten. The food miles between locally grown vegetables when compared to the food miles of imported produce would be very different.

2. ***Provocation:***
   - Why does Western Australia import vegetables from other states/territories?
   - Why does Australia import vegetables from other countries?
   - How do migrants influence the sale and production of vegetables in Australia?

3. Ask students if they know why we want to avoid using a lot of fuel (when you burn fuel you produce carbon dioxide [CO2] which is emitted into the air. CO2 is a greenhouse gas that contributes to global warming and climate change).

4. Working in small groups, ask students to brainstorm some advantages and disadvantages of transporting vegetables long distances from where they are grown to where they are sold using the information below as a guide. Invite some students to share their answers with the class.

Advantages	Disadvantages
• We can eat vegetables that aren't grown in Australia. • We can eat vegetables all year round that are only grown at certain times in Australia. • Can be less expensive due to cheaper labour costs in other countries.	• Contributes to greenhouse gas emission and global warming. • Other countries may not have as strict quality control practices. • Can be more expensive due to the cost of transportation.

5. Show students the video *Food Origins*. Tell the students that the video explains the introduction of a food labelling system in Australia that aimed to make it a lot easier to tell where our foods come from.

6. ***Provocation:***
   - Why is it important to know where food is grown?
   - What are the benefits of buying locally grown produce?
   - How does locally grown produce contribute to sustainable living?
   - What environmental factors contribute to vegetable production?
   - Are food labels helpful?
   - Do you know how to read a food label?
   - What other information can be shared in a food label?

7. Provide each student with one of the food packages/labels (preferably vegetables). Ask students to identify where the food comes from. Get students to swap packages a few times to see where different vegetable products are coming from.

8. Ask students to identify the origin of their food package on the map using the marker pens, push pins or small stickers.

Activity 2: Food miles *(continued)*

9. ***Provocation:***
    - What foods/vegetables come from different countries? Why?

10. Identify Perth and Alice Springs on the map. Inform students that the approximate distance between Perth and Alice Springs is 2000 km. It would take you about 5 days of continuous cycling to travel this distance! Ask students to compare the distance between Perth and Alice Springs to the distance between Perth and the country of origin for individual foods.

11. Ask students to suggest some ways that they can reduce their food miles (look at origin labelling, choose food produced locally, start a vegetable garden, eat seasonal produce, buy vegetables and fruit from the markets).

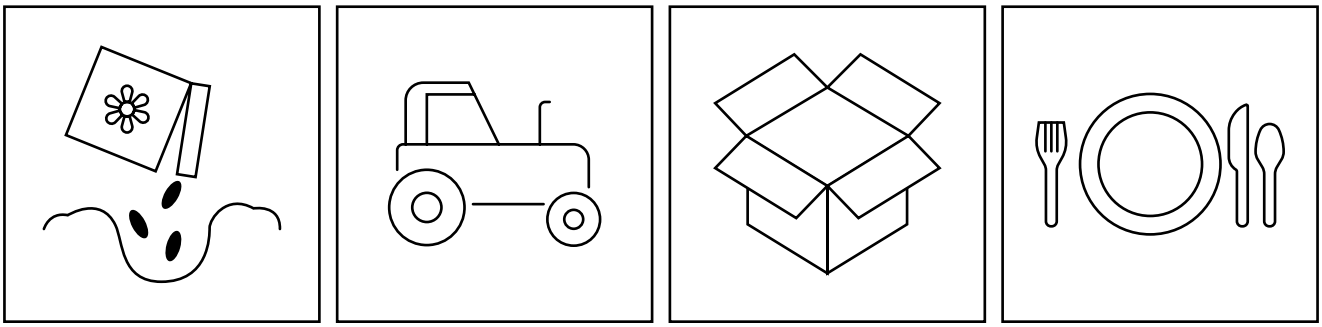
12. Ask students to reflect on what they have learnt from the lesson, compare it to their previous understanding of the topic, and consider how they will act on these findings.

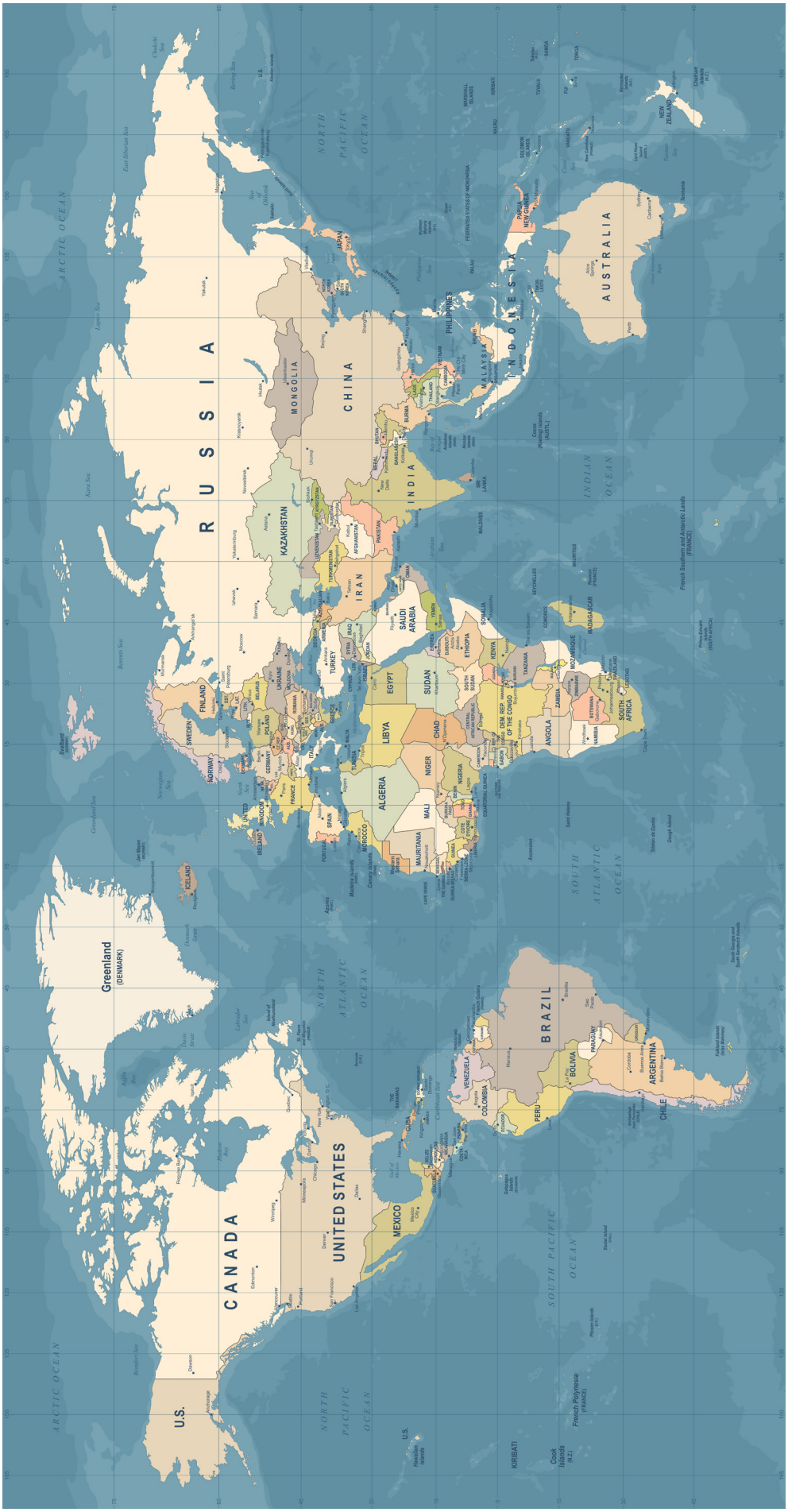
Additional activities

1. Consider an excursion visit to:
    - A local market garden or farm
    - A growers market like the *Bunbury Farmers Market*
    - *Perth City Farm*

2. Watch more engaging videos exploring the concept farm to fork:
    - *Crunchy carrots: from farm to fork*
    - *Leeks: from farm to fork*
    - *Frozen peas: from farm to fork*
    - *Sweetcorn: from farm to fork*
    - *Tomatoes: from farm to fork*
    - *Mushrooms: from farm to fork*
    - *Budding broccoli: how does broccoli grow?*
    - *Earthy potatoes: how do potatoes grow?*
    - *Saucy baked beans: how do beans grow?*
    - *Prize pumpkins: how do pumpkins grow?*

3. Supplement with *Reading food labels* by Crunch&Sip®

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PARAGUAY
INDONESIA
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NEW ZEALAND
JAPAN
FINLAND
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NORWAY
ICELAND
UKRAINE
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GERMANY
FRANCE
SPAIN
ITALY
TURKEY
ARCTIC OCEAN
NORTH PACIFIC OCEAN
NORTH ATLANTIC OCEAN
SOUTH ATLANTIC OCEAN
INDIAN OCEAN
SOUTH PACIFIC OCEAN

LESSON 6:

Vegetable varieties

Lesson overview

In this lesson students explore different types of vegetables and the varieties within a vegetable family. They examine and taste a range of vegetables, and learn the origin and cultural significance of some vegetables.

Learning intentions

- Understand that vegetables are everyday foods, and contain nutrients that support health and wellbeing including vitamins, minerals, fibre and water
- Understand that vegetables can be classified by colours and eating a range of vegetables from the five colour groups supports health and wellbeing
- Understand that vegetables have been introduced into Australia from different countries and that vegetables can have different varieties
- Appreciate that vegetables can be culturally significant to cultural groups and that people have different preferences for vegetables

Curriculum links

YEAR 5					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS058	*ACELY1704*	*ACMNA291* *ACMSP118* *ACMSP119*	*ACSIS090*	ACTDEK022 *ACTDIP022*	

YEAR 6					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS058	*ACELY1714*	*ACMNA123* *ACMMG137* *ACMSP147*	*ACSIS103*	ACTDEK022 *ACTDIP022*	

General capabilities

- Literacy
- Numeracy
- ICT
- Critical and creative thinking
- Personal and social capability
- Intercultural understanding

Resources

- ☐ Appendix 1 – parent/carer request for classroom support and donations for Activity 2
- ☐ PowerPoint 5 – consider adding slides to reflect school context and/or cultural diversity of the local community

- [ ] Worksheet 5 – Vegetable market place
- [ ] Activity 2 – Vegetable market place: seek donations of vegetables and different varieties of a particular vegetable to expand students' experiences with vegetables

Preparation

- [ ] Re-Send parent/carer request (Appendix 1) for assistance and donations for Activity 2
- [ ] Obtain access to an audio visual device for online viewing material
- [ ] Obtain access to PowerPoint display for PowerPoint
- [ ] Collect vegetable donations and supplement with approved vegetable purchases. Be guided by school context and donations, but endeavour to supplement to provide a greater range of vegetables to show
- [ ] Market place – prepare vegetables for examination and/or tasting
- [ ] Print Worksheet 13 – one per student

Educator support notes

- Market place – use the information from PowerPoint 5 to support discussion at each vegetable station. Consider topping up with information from:
  - *A to Z of Fruit and Vegetables* by Crunch&Sip®
- Allow parents/carers to share cultural stories of vegetables (if appropriate).
- *Pixabay* or *Pexels* are a great source of free images to support group PowerPoints – see Appendix 5 from Lesson 4.

Activities

Activity 1: Vegetable origin and varieties

1. Introduce the lesson by showing the online video: *Why is bok choy in everything?*

2. Ask:
   - Who has eaten bok choy?
   - Who has eaten pak choy?
   - Why are the vegetables in the video called Asian vegetables or Asian greens?
   - Can you name any other Asian or culturally-linked vegetables?
   - Who would like to try Asian vegetables?
   - What other vegetables would you like to try?

3. ***Provocation:***
   - Why did the vegetables have different names in different places?
   - Can you name any vegetable that have a different names? *Sweet Potato/Yam, Capsicum/Bell peppers*

4. Tell students that vegetables and fruit are included in the diets of people(s) from all around the world. Different people in different countries eat different vegetables and fruit due to what grows best in that country and what is available (seasonal). At times, a vegetable or fruit can become an important part of peoples diets in a particular country because it is plentiful, nutritious and taste good like Asian greens in Asia.

5. Explain that 'new' vegetables or vegetables that are not native to Australia have been introduced with the migration of people from other countries like China, Vietnam, South Africa and New Zealand. Improved packaging, storage, and faster transportation has also led to the introduction and availability of a wider range of vegetables and more varieties in vegetable families like different types of cucumbers (English, American, Persian, Japanese, Kirby, etc). In Australia, we now have a greater range of vegetables to choose from, which makes it so much easier for us to eat vegetables from across the five colour groups.

6. Remind students that vegetables are great to taste, easy to prepare and full of amazing qualities called nutrients. We know vegetables are full of nutrients because nutrients are often responsible for the bright and glorious colours of vegetables. Nutrients in vegetables (minerals, vitamins, fibre and water) can provide:
   - energy to run and play
   - brain power to think and concentrate
   - growing power to be get bigger and strong
   - mending power to repair our bodies when we are injured or sick
   - protection to keep us from getting sick

7. Show PowerPoint 5 and work through the slides and slide notes. Discuss.

8. Tell students that it's ok not to like all vegetables because there are so many different varieties to choose from. For example, you may not like radicchio lettuce because it has a bitter and somewhat spicy taste, but lettuces like iceberg and mesculin are mild in flavour (share own stories here if appropriate).

Activity 2: Vegetable market place and stations

1. This Activity works best with parent/carer support. Consider placing one parent/carer at each station.
2. Every student must wash and dry hands.
3. Introduce students to the idea of a vegetable market place by pointing to the stations around the classroom.
4. Explain that the intent of today is to move from station to station, examining and trying the vegetables that are on offer. Encourage students to try but don't force.
5. Distribute Worksheet 13 and instruct students to complete as they visit each station.
6. Split students into small groups (this activity works best when the number of groups corresponds with the number of stations).
7. Invite parents/carers to share culturally-linked knowledge of vegetables (if appropriate).
8. Enjoy the experience and the taste sensation!
9. Bring the students back together at the end and discuss the experience.
10. ***Extension:***
    - Calculate the number of students who liked a particular vegetable.
    - Compare the number of root vegetables to vegetables that are a fruit.
    - Calculate number of vegetables that can be eaten raw/cooked.
    - Compare the number vegetables that had been eaten before the day to those tried on the day.
    - Combine student data to create class data and plot on a column graph.
11. Tell students that they can ask for more vegetables by putting up a hand and using the words: "Can I please have more?" Allow students to ask for more.

Activity 3: Group assignment

1. Assign each group a different vegetable. Choose vegetables that are culturally significant to the local community and/or communities/countries that relate to other curriculum learning currently studied.
2. Instruct groups to use advanced search function to research key information about the vegetable like:
    - place of origin
    - growing conditions
    - countries where produce is grown
    - country that grows the most produce
    - possible dishes
    - medicinal uses
3. Groups are to collate and present information on one or more (set amount) PowerPoint slide(s).
4. Allow groups to present slide information.

Additional activities

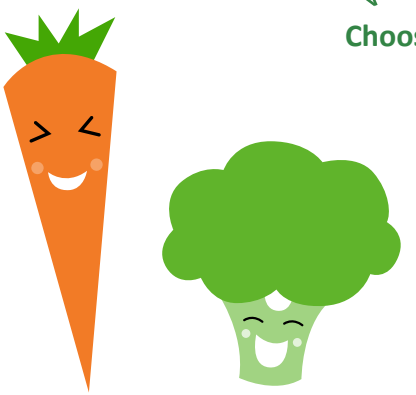
1. Watch the video *Weird and wonderful root vegetables from around the world*. Although this video is from the United Kingdom by the supermarket giant Tesco, it is short, informative and engaging.

2. Watch the videos:
   - *What school lunch looks like around the world*
   - *School lunches you've probably never heard about* (this is longer)
   - *School lunches around the world* (very short)

Write the name of the vegetable in the box below.

If your answer is yes to the below question then place a tick in the box.	Carrot																			
Did you know the name of this vegetable?																				
Have you eaten this vegetable before today?																				
Did you try this vegetable today?																				
How many varieties were there on offer?																				
Can you eat this vegetable raw?																				
Can you eat this vegetable cooked?																				
Is it a root vegetable?																				
Is it the fruit of an edible plant?																				
You like this vegetable!																				
You don't like this vegetable!																				

Choose only one from these last two questions!
And... then tick the box.



LESSON 7:

Fuel for bodies

Lesson overview

In this lesson students explore vegetables as an important fuel for bodies. They revisit nutrients in vegetables, and examine the place of vegetables and fruit as part of a healthy balanced diet.

Learning intentions

- Understand that vegetables are everyday foods, and contain nutrients that support health and wellbeing including vitamins, minerals, fibre and water
- Appreciate that vegetables are culturally significant and that people have different preferences for vegetables

Curriculum links

YEAR 5					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS053 *ACPPS054* *ACPPS057* *ACPPS058*	*ACELY1704* *ACELY1706*			ACTDEK022 *ACTDIP022*	*ACADRM035* *ACAMAM064*

YEAR 6					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS053 *ACPPS054* *ACPPS057* *ACPPS058*	*ACELY1714* *ACELY1716*			ACTDEK022 *ACTDIP022*	*ACADRM035* *ACAMAM064*

General capabilities

- Literacy
- ICT
- Critical and creative thinking
- Personal and social capability
- Intercultural understanding

Activities

Activity 1: Food for life

1. Tell students that the food we eat affects our bodies in different ways. For some foods the effect on our bodies is almost immediately so that we feel energised, pumped and ready for action. However, others foods can make us feel slow, heavy, and even sleepy. Ask the students to share examples of both.

2. Explain to students, regardless of the effect of food, all foods are good for us but it is important to remember to eat some foods only some of the time as these foods are not meant to be eaten every day. Ask the students to share examples.

3. Show PowerPoint 6 and explore the different types of health messaging and slogans. Ask students to share examples of other health messages or slogans.

4. Discuss the importance of reliable information to inform our health and wellbeing such as government information, community health organisations such as Crunch&Sip® and internet-based information. Explain that websites that end with *.gov.au* are a reliable place to seek information and that children and young people should always check with a trusted adult with regard to the authenticity of web-based or Internet information.

5. Remind students that vegetables are great to taste, easy to prepare and full of amazing qualities called nutrients. We know vegetables are full of nutrients because nutrients are often responsible for the bright and glorious colours of vegetables. Nutrients in vegetables (minerals, vitamins, fibre and water) can provide:
   - energy to run and play
   - brain power to think and concentrate
   - growing power to be get bigger and strong
   - mending power to repair our bodies when we are injured or sick
   - protection to keep us from getting sick

6. Instruct students to work in small groups to develop an engaging and inspiring health message about a vegetable and/or vegetables. They should endeavour to think about what they've learnt across the program of work and relevant information. Set an appropriate timeframe for students to be creative.

7. Allow students to share messages with the class.

8. ***Option:***
   Instruct students to use the health slogan to create an accompanying artwork. Distribute Appendix 2 and allow students to use the vegetable cards as inspiration for their artwork. Discuss art elements:
   - shape
   - colour
   - lines
   - space
   - texture
   - value

9. Display artwork in the classroom.

Activity 2: Vegetables are everyday foods

1. View Sesame Street's: *A cookie is a sometime food*.
2. Discuss and unpack content. Compare the message to Australian-based health promoting messaging and/or terminology learnt across the program.
3. Invite students to manipulate, redevelop and/or create a new dramatic script that includes vegetables as 'everyday foods' and the focus and terminology is Australian-based and culturally appropriate.
4. Split students into working groups to plan, prepare, practice and perform a dramatic script. Encourage them to consider:
   - a storyboard to plan and sequence scenes
   - location and/or setting
   - props and accompaniments
   - camera angles, edits and transitions
   - music or voice
5. Allow students time to plan and produce a new dramatic script.
6. Consider presenting dramatic scripts at the school assembly.

Activity 3: Fuel for the body

1. Show the online video *Episode 25: The One with the Sports*. Discuss Morgan's sporting achievements and the significance of food to her success.
2. Ask the students:
   - What vegetables did Morgan like? *(lots, dark leafy greens, celery)*
   - What did she say mushrooms were good for? *(recovery)*
   - How much water did Morgan drink daily? *(6 large containers – 6 litres)*
   - What was Morgan's piece of advice to the boys? *(Fuel the body with the right foods)*
3. Split the class into small groups (6 groups).
4. Explain the task for the day is to brainstorm and develop appropriate meals for particular individuals. Information regarding an individual will be shown on a PowerPoint slide (PowerPoint 7). For each PowerPoint slide, the group must:
   - Consider and respond to the slide information.
   - Consider foods and drinks required for the individual.
   - Develop four meals, including breakfast, lunch, dinner and a snack.
   - List the meals on Worksheet 14 (cut into slips for each individual).
   - When completed, post the group response (meals) into a corresponding envelope and that is, PowerPoint slide 1 = Envelope 1.

Activity 3: Fuel for the body *(continued)*

5. Remind students that vegetables are great to taste, easy to prepare and full of amazing qualities called nutrients. We know vegetables are full of nutrients because nutrients are often responsible for the bright and glorious colours of vegetables. Nutrients in vegetables (minerals, vitamins, fibre and water) can provide:
   - energy to run and play
   - brain power to think and concentrate
   - growing power to be get bigger and strong
   - mending power to repair our bodies when we are injured or sick
   - protection to keep us from getting sick
6. Tell students that an easy way to eat vegetables and fruit is to add them to meals but don't forget to think about including them into recipes as this can add the nutritious benefits of vegetables and fruits to lots of different meals.
7. Show and work through PowerPoint 7.
8. When the groups have developed the meals for the six individuals and all six envelopes are filled, distribute one envelop to each group. Each group will then:
   - Open and examine the six meal ideas developed by the six groups.
   - Choose the preferred meals from across the six meal ideas, including mixing and matching the ideas from different groups.
   - Develop a day's food for the particular individual.
   - Develop a justification for the food choices and be prepared to justify to the class.
9. Share group ideas with the whole class. Discuss.
10. Break for Crunch&Sip® and enjoy.

	Breakfast	Lunch	Dinner	Snack
1				
2				
3				
4				
5				
6				

LESSON 8:

Together in the kitchen

Lesson overview

In this lesson students are given the opportunity to develop their food preparation and cooking skill. Hands on learning focuses on contemporary uses of vegetables such as cauliflower rice and zucchini noodles (zoodles). Existing messages around food and kitchen safety rules are reinforced.

Learning intentions

- Understand that vegetables are everyday foods, and contain nutrients that support health and wellbeing including vitamins, minerals, fibre and water
- Understand that food and kitchen safety rules are designed to keep people safe
- Prepare a vegetable-based food to share and eat

Curriculum links

YEAR 5					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS053 ACPPS054 ACPPS057 ACPPS058	ACELY1704			ACDETK021 ACTDEK022	ACADRM035 ACAMAM064

YEAR 6					
HPE	**English**	**Mathematics**	**Science**	**Technologies**	**The Arts**
ACPPS053 ACPPS054 ACPPS057 ACPPS058	ACELY1714			ACDETK021 ACTDEK022	ACADRM035 ACAMAM064

General capabilities

- Literacy
- ICT
- Critical and creative thinking
- Personal and social capability
- Intercultural understanding

Resources

- ☐ Appendix 1 – parent/carer request for classroom support and donations for cooking activity
- ☐ Cauliflower and zucchini
- ☐ Cheese grater and vegetable spiraliser

- [ ] Ingredients and cookware requirements as per selected recipes. See:
  - *Creamy cheese zoodles* inspired by taste.com.au (adapt as required)
  - *Easy cauliflower rice* by taste.com.au (adapt as required)
  - *Cheesy sweet potato nachos* by taste.com.au
  - *Coleslaw* by Crunch&Sip®
  - *Indian salad* by Crunch&Sip®
  - *Japanese vegetable pancakes* by Crunch&Sip®
  - *Chocolate zucchini muffins* by Crunch&Sip®
  - *Mini carrot cakes* by Crunch&Sip®
- [ ] Serving equipment e.g., bowls, plates, and cutlery
- [ ] Camera and/or tablet device for taking photos of cooking

Preparation

- [ ] Re-Send parent/carer request (Appendix 1) for assistance and donations for cooking activity
- [ ] Prior to the lesson check that students do not have allergies or intolerances to any of the foods used and all of the ingredients are culturally appropriate
- [ ] Download and print selected recipes
- [ ] Collate recipe ingredients and cooking equipment

Educator support notes

- Activities in this lesson are resource intensive and require access to particular facilities such as a student friendly kitchen space and digital recording devices. For these activities, reduce or replace recipes (see *Crunch&Sip® recipes*) and work with the media and ICT facilities at the school.
- Activities in this lesson are not numbered and therefore, interchangeable. Consider the order of activities that works best for the context. For example, you may choose to work with the media activity first to prepare students for filming and/or photo taking. Alternatively, you may choose to explore food safety activity first.

Activities

Activity: Contemporary uses of vegetables and food safety

1. Every student must wash and dry hands.
2. Ask the students if they have ever heard or tasted cauliflower rice and zucchini noodles? Discuss.
3. Tell students that chefs, cooks, parents and carers are creating new ways of eating vegetables every day. New ways aim to increase the consumption of vegetables in our diets, broaden the use of different vegetables, vary the ways in which vegetables are used and included in recipes and quite simply, because vegetables taste so good. New ways are also being created because people want to eat healthier and eat more vegetables in their diets because they are full of nutrients.
4. Remind students that vegetables come in lots of different varieties and colours and different coloured vegetables contain different nutrients. If you eat a rainbow of vegetables every day you will get all the nutrients you need to be healthy. Vegetables are everyday foods.
5. Show the students the grater and spiraliser. Explain and demonstrate how the devices work. Point out safety requirements, tips for use and general care with these devices. Allow the students to examine some of the cauliflower rice and zucchini noodles (zoodles). Allow them to taste if they choose but don't force.
6. Tell students that people can hurt themselves or become ill if they don't follow food and kitchen rules. Ask the class to come up with a list of rules that everyone will be expected to follow while cooking. Write these on a whiteboard. For each rule ask students to explain why it is important. The information below can be used to help guide students.

Food Safety	Kitchen Safety
• Wash and dry your hands before preparing food and after coughing or sneezing. • Long hair needs to be tied back. • Make sure cooking equipment and benches are clean before preparing food. • Make sure cooking equipment and benches are cleaned properly when finished. • Keep cold food cold and hot food hot. • All rubbish and food scraps go into the bin or compost. • Wash fruit and vegetables before preparing. • Don't let raw meat touch other food.	• Have an adult supervising at all times. • Wipe up spills immediately. • Use safe knife cutting techniques. • No running where food is being prepared. • Turn handles of saucepans towards the back of the stove/cooktop will cooking. • Use oven mitts when taking something out of the oven. • Wear closed in shoes. • Don't put knives in the sink.

7. Ask students to share new or different ways that vegetables can be included in meals such as sweet potato (yam) nachos.

Activity: Cooking event

1. This activity works best with parent/carer support. Consider placing one parent/carer at each cooking station.
2. Tell the students that today, with the help of parents and carers, they will be working in groups to make a number of different vegetable-based foods. These foods will be shared with class mates and parent/carer helpers to celebrate the conclusion of this program of work. The foods shared will focus on bright vegetable colours, culturally diverse foods and new ways of using vegetables in meals including cauliflower rice and zucchini noodles (zoodles).
3. Tell the students that food brings people together. Through food we can experience other peoples' cultures and traditions, share family values and enjoy each other's company. Today is all about connecting with others through the sharing of food.
4. Ask the students to brainstorm what sharing foods means to them. Invite students to write the words on the whiteboard. Consider recording words into a digital software program to create a word cloud.
5. Show the students the recipes. Discuss:
   - the ingredients and health benefits of the foods
   - the different processes required in food preparation and cooking steps
   - food safety and hygiene
   - cultural connections of some of the recipes
   - tasks required, which need to be divided equally amongst the group.
6. Divide the students into six or more groups and assign each group one recipe. Allow the groups time to discuss, allocate tasks and prepare tasks.
7. Distribute and/or instruct students to collect the recipe and ingredients. Begin cooking.
8. Allow students to take photos and/or film whilst groups are working (see media story).
9. ***Option:***
   If not using the media activity, consider taking photos of students while they work.
10. When complete, distribute serving equipment.
11. To share food, use the students to offer and serve food creations to other groups and parent/carer helpers. Enjoy the food creations.
12. ***Option:***
    Consider setting the class as a restaurant and invite the Principal and/or school leadership team.
13. Tell students that they can ask for more food by using the words: "Can I please have more?" Allow students to ask for more.
14. Clean up food preparation area and wash and dry dishes.
15. Discuss the event and the sharing of food with friends.

Activity: Media story

1. Tell the students that their job is to report the cooking event for the school newsletter.
2. Discuss the cooking event, food sensations, cultural connection of some foods and the involvement of parents/carers.
3. Explain to the students that they will work in the same group as the cooking event and will plan and produce a media artwork to be presented to parents/carers, the school assembly and/or community event.
4. The media story must focus on:
   - The purpose of the cooking event and health messaging.
   - Recipe and meal shared.
   - Involvement of parents/carers.
   - The significance of sharing food and food as a way to celebrate and bring people together.
5. Instruct students to consider and/or develop:
   - allocation of tasks
   - the storyline
   - script
   - filming location
   - props
   - food
6. Create and share media works.

Additional activities

1. *Download the Crunch&Sip Chef's hat here*
   There are lots of online videos available demonstrating how to make a chef's hat out of paper. These hats are easy to make and are a great addition to this lesson. See Crunch&Sip® for an alternative template for a Chef's Hat.
2. Create recipe cards to describe and record cooking creations.
3. Activity developed by NASA – *Ripening of fruits and vegetables*

REVIEW

These activities summarise some of the key learning points students have learnt about vegetables during this resource. The first activity is a fun conclusion to the program allowing students to explore vegetables. The second activity can be used as an assessment task or used to inform the development of a school-based assessment task. Educators will need to use professional judgement when applying or developing an assessment task.

Resources

- ☐ Investigation stations – radish, yam (sweet potato), avocado, onions, orange, spinach, peas, asparagus, strawberries
- ☐ Text cards – Vegetables, Yes, Digestive, Edible, Everyday
- ☐ Free letter – E
- ☐ *Eggplant* available from Pixabay
- ☐ *Dragon Fruit* available from Pixabay
- ☐ *Fig* available from Pixabay
- ☐ *Leeks* available from Pixabay
- ☐ Appendix 6 – The secret message clues
- ☐ Worksheet 15 – Solve the secret message
- ☐ Assessment 1
- ☐ Crunch&Sip® to eat

Preparation

- ☐ Invite parent/carers to contribute vegetables for the investigation
- ☐ Invite parent/carers to help at the stations
- ☐ Download images, print and laminate (eggplant, dragon fruit, fig, leeks)
- ☐ Print Appendix 6, laminate and cut out card for each station
- ☐ Print Worksheet 15 – one per student
- ☐ Send parent/carer request for students to bring Crunch&Sip®. Consider inviting parents/carers to join in
- ☐ Print Assessment 1 – one per student

Activities

Activity 1: Vegetable investigation

1. Every student must wash and dry hands.
2. Students work individually or in pairs.
3. Tell the students that a secret message has been left in the classroom and as investigators their job is to uncover the secret message. Explain that the message is hidden but can be revealed by visiting 19 vegetable stations and answering the question. The first letter of the answer is the code letter for the secret message (Everyday foods please).
4. Place the 19 clues and vegetable tubs/bags around the classroom. Explain to the students that they can smell, taste and look at the vegetable/image or clue to answer the question. This will help them to uncover the secret letter. Encourage students to taste the vegetables but don't force.
5. ***Option:***
   Remove some of the answers or clues to make more challenging. For example, remove the free letter on Station 3 and/or remove the text from the stations that have text questions like Station 12.
6. Provide Worksheet 15 – one per student.
7. Instruct students to move from station to station answering the questions. They don't need to start at station 1 but can commence the activity at any station.
8. Students solve the secret message!
9. Discuss the stations with students. Remind students that vegetables can have different tastes, texture, looks and smells. Some vegetables like onions we can add a small amount to get a lot of flavour, whilst other vegetables you need a larger amount to get the same flavour.
10. Remind students that we can eat vegetables and fruit every day. Vegetables and fruit help us feel good, they give us energy to run and play, help us grow and keep from getting sick. Vegetables and fruit are everyday foods. We also drink water to survive.
11. Invite students and parents/carers for a Crunch&Sip® break and enjoy!

Activity 2: Vegetable review assessment task

1. Distribute Assessment 1 and set students to complete.
2. Collect when finished.
3. Every student must wash and dry hands.
4. Remind students that we can eat vegetables and fruit every day. Vegetables and fruit help us feel good, they give us energy to run and play, help us grow and keep from getting sick. Vegetables and fruit are everyday foods.
5. Now is also a good time to break for Crunch&Sip®. Enjoy!

Additional activities

1. *What's that vegetable or fruit?*
2. *Design a Crunch&Sip® advertisement*.

THE SECRET MESSAGE CLUES

Cut out the clue and place at each station with the hidden vegetable/fruit/word/image/letter.

Clue 1	Clue 2
This vegetable is the fruit of a plant. It's purple. ***What is it?***	Edible plants are also called this? ***What is it?***
Clue 3	**Clue 4**
E	This vegetable grows very fast. It is also the root of the plant. It has a strong taste like pepper! Take a look before you taste. ***What is it?***
Clue 5	**Clue 6**
In Australia we call this vegetable a sweet potato but other countries call it something else! ***What is it?***	This exotic fruit is named after a mythical flying creature that shoots fire. It's called _ _ _ _ _ _ Fruit. ***What is it?***
Clue 7	**Clue 8**
This plant you could have eaten before. Eyes closed, take a piece and taste it. If you don't want to, take a look. ***What is it?***	We say _ _ _ to vegetables! ***What is it?***
Clue 9	**Clue 10**
What is it?	Don't look but do smell. Eyes closed. But be careful, it might make you cry! ***What is it?***

THE SECRET MESSAGE CLUES

Cut out the clue and place at each station with the hidden vegetable/fruit/word/image/letter.

Clue 11	Clue 12
Don't look! Take a deep smell. ***What is it?***	The system in the body from the mouth to the anus. ***What is it?***
Clue 13	**Clue 14**
This vegetable is green. Eyes closed, take a piece and taste it. If you don't want to, take a look. ***What is it?***	These are the seeds of a plant. Eyes closed, take one and taste it. If you don't want to, take a look. ***What is it?***
Clue 15	**Clue 16**
What is it?	Plants that we can eat are called _ _ _ _ _ _ . ***What is it?***
Clue 17	**Clue 18**
Inside the bag is this vegetable! It grows above the ground. It looks like a spear and it smells too! ***What is it?***	This fruit is really sweet. Eyes closed, take a piece and taste it. If you don't want to, take a look. ***What is it?***
Clue 19	
This is the opposite of sometimes foods. ***What is it?***	

THE SECRET MESSAGE ANSWERS

Clue 1	Clue 2
Eggplant *Display a photo*	**Vegetables** *Place text in brown paper bag*
Clue 3	**Clue 4**
Free Letter	**Radish** *Chop and place in a tub but have whole too*
Clue 5	**Clue 6**
Yam *Chop and place in a tub*	**Dragon Fruit** *Display as a photo*
Clue 7	**Clue 8**
Avocado *Place an avocado in a brown paper bag*	**Yes** *Place text in brown paper bag*
Clue 9	**Clue 10**
Fig *Display a photo*	**Onions** *Place in a tub*
Clue 11	**Clue 12**
Orange *Cut and place in a brown bag*	**Digestive** *Place text in brown paper bag*
Clue 13	**Clue 14**
Spinach *Place in a brown paper bag*	**Peas** *Place in a brown paper bag*
Clue 15	**Clue 16**
Leeks *Display as a photo*	**Edible** *Place text in brown paper bag*
Clue 17	**Clue 18**
Asparagus *Place in brown paper bag*	**Strawberry** *Place in brown paper bag*
Clue 19	
Everyday *Place text in a brown paper bag*	

SOLVE THE SECRET MESSAGE

Station	Letter code	What is the vegetable or word?
	**B**	**B**anana
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Use the first letter of the vegetable as the letter code

1. Name the five colour groups of vegetables? (5 marks)

2. Use a line to put the vegetable parts into the correct order of growth. (5 marks)

Flower	5
Stem	1
Fruit	6
Roots	2
Seed	4
Leaves	3

3. Suggest two ways to increase vegetables in your diet. (2 marks)

4. Finish the missing letters to reveal the nutrients found in vegetables. (4 marks)

M _ _ _ _ A L S

V _ _ _ _ _ N S

F _ B R _

W _ _ _ _

5. Name five reasons why vegetables are good for us? (5 marks)

6. The digestive system runs from the mouth to the _____ . (1 mark)

A) Gut
B) Appendix
C) Anus
D) Sinus

7. There are two types of food. What are they? (2 marks)

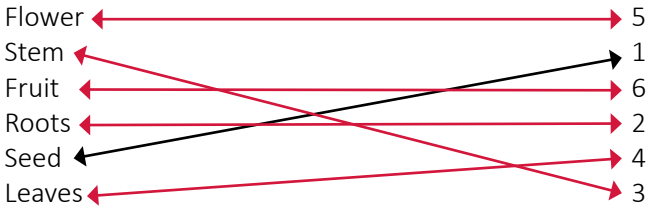
8. Families are similar but different. Why? (1 mark)

VEGETABLE ASSESSMENT (25 MARKS)

1. Name the five colour groups of vegetables? (5 marks)

   Red, Orange/Yellow, Green, Blue/Purple, White/Brown

2. Use a line to put the vegetable parts into the correct order of growth. (5 marks)



3. Suggest two ways to increase vegetables in your diet. (2 marks)

   Adding vegetables to meals, adding vegetables to recipes

4. Finish the missing letters to reveal the nutrients found in vegetables. (4 marks)

   M I N E R A L S

   V I T A M I N S

   F I B R E

   W A T E R

5. Name five reasons why vegetables are good for us? (5 marks)

   - Energy to run and play.
   - Brain power to think and concentrate.
   - Growing power to be get bigger and strong.
   - Mending power to repair our bodies when we are injured or sick.
   - Protection to keep us from getting sick.

6. The digestive system runs from the mouth to the _____ . (1 mark)

   A) Gut
   B) Appendix
   C) Anus
   D) Sinus

7. There are two types of food. What are they? (2 marks)

   Everyday foods and sometimes foods

8. Families are similar but different. Why? (1 mark)

   Please use professional judgement here