



### Learning Outcomes

- **MAE-RWN-02** reads numerals and represents whole numbers to at least 20 objects
- **STe-3LW-ST** Explores the characteristics, needs and uses of living things



### Resources and Preparation

#### Resources

##### Video (V)

- Video 1 - [How do plants grow?](#)

##### Worksheets (WS) and Powerpoints (PTT)

- [Powerpoint 4 - How do fruits and vegetables grow?](#)
- Teacher Information Document (TID)

##### Materials

- Student's Crunch & Sip fruit and veg
- Classroom Poster
- Blank paper or interactive whiteboard
- Blank A4 page (1 per student)
- (Colouring) pencils

##### Preparation

###### Prior to lesson:

- This lesson could be done during or immediately before Crunch & Sip

# The science behind growing fruit and vegies

Students explore how fruits and vegetables grow. They discuss the fruits and vegetables they have brought in for Crunch & Sip and, as a group, pick the most popular one to be used for the classroom poster. They investigate their poster fruit/vegetable in more detail.

### Introduction (5 mins)

Brainstorm with the students: what are fruits and vegetables and where do they come from? How do they grow and what do they need?

Record onto blank display posters or interactive whiteboard.

### Activity (30 mins)

1. Ask the students to get their Crunch & Sip fruit or veg. Students can share with the class what they have brought and where they got it.
2. Together with the students, count the fruits and vegetables and determine which is most, and least, popular. How many fruits and how many vegetables are there? Tally the different sums on the board.
3. Students place their fruit or vegetable on a blank piece of paper and trace with a pencil (and colour if there is time). After eating the fruit or vegetable, they can go around the class and see if they can find any other tracings similar to theirs.
4. Explain the classroom poster to the students and with the class, decide which fruit or vegetable will be used for the poster.
5. Investigate the identified fruit/veg from the poster together with the class
6. Complete week 1 on the classroom poster. For more background on growing fruit and vegetables, the class can watch Video 1 or use PPT4.

### Conclusion (5 mins)

Ask the students if they have had an experience with growing their own fruits or vegetables. Do they have any tips for how to grow the best fruit/vegetable? And/or ask the class how they would go about starting their own veggie patch, what they would grow and how they would grow the fruit/vegetable.

### Assessment

- For:** Students identified where their fruit and vegetables come from
- As:** Students list what a plant needs to grow
- Of:** Students apply their knowledge to other types of plants

### Differentiation

**Extend:** Take the students to the school garden and explore the fruits and vegetables growing there. If no school garden, students could examine photographs of a garden. Students can extend the maths: see TID.

**Simplify:** To simplify, watch the video and discuss with the students.

### School/Home Link

- Students can use what they learned to explore fruits and vegetables in their own environment, together with their parents/caretakers.

**Duration | 40 minutes**



### Learning Outcomes

- **MAE-2DS-01** sorts, describes, names and makes two-dimensional shapes, including triangles, circles, squares and rectangles
- **ENE-UARL-01** understands and responds to literature read to them
- **MAE-RWN-01** demonstrates an understanding of how whole numbers indicate quantity
- **Ste-1WS-S** observes, questions and collects data to communicate ideas



### Resources and Preparation

#### Resources

##### Video (V)

- Video 2 - [How did that get in my lunchbox?](#)

##### Worksheets (WS) and Powerpoints (PTT)

- Worksheet 1 - Energy from Fruit & Veg
- Teacher Information Document (TID)

##### Materials

- 1 printed WS1 per student
- Classroom Poster
- Scissors
- Glue
- Drawing materials
- Workbooks
- (Optional) "[How did that get in my lunchbox](#)" book

##### Preparation

###### Prior to lesson:

- Print 1 WS1 per student

## The farm to fork process

Students learn about the journey of fruits and vegetables, as they travel from 'farm to fork'. They discuss the process of harvest, transport and storage of different fruits and vegetables. They do a sorting task, where they put the 'farm to fork' steps of carrots into the right order.

### Introduction (5 mins)

Ask the class if they remember where and how their fruits and vegetables grow and review the previous lesson together. Now ask the students if they ever thought about how their fruit or vegetables get from where they grow, to the grocery shop and then into their lunchbox. Brainstorm together.

### Activity (30 mins)

1. Read the book "How did that get in my lunchbox?", or watch V2 together with the class. Discuss the book and explain anything they didn't understand.
2. Mention your 'classroom poster fruit/veg' and brainstorm with the students about how they think it makes it from 'farm to fork'.
3. Using the Teacher Information Document, discuss and fill out Week 2 on the poster together with the students.
4. Using WS1, students cut out the pictures, colour them in and stick them into their workbooks in the correct order. Students can count how many carrots in total are on the pictures.

### Conclusion (10 mins)

Lead a class discussion with the students how and where they store their different fruits and vegetables at home. Why do we keep some food in the fridge? Why do foods go bad?

### Assessment

- For:** Students recall where/how fruit & veg grows and where they get their fruit and veg from
- As:** Students understood the fruit & veg 'farm to fork process' through the information read/watched and discussions in the group
- Of:** Students put the images of the 'farm to fork' process in the correct order and successfully tally up the carrots

### Differentiation

- Extend:** Explore the concepts of 'food safety' further with the students.
- Simplify:** Have the students work in groups in step 5, or show the correct order of the steps and ask students to copy.

### School/Home Link

Students can ask their parents/carers where the fruit and vegetables in the house came from, check how far and how it travelled to their 'fork'.

### Duration | 45 minutes





### Learning Outcomes

- **PDe-6** Explores contextual factors that influence an individual's health, safety, wellbeing and participation in physical activity
- **PDe-1** Identifies who they are and how people grow and change
- **STe-3LW-ST** Explores the characteristics, needs and uses of living things



### Resources and Preparation

#### Resources

##### Video (V)

- Video 3 - [Show younger children why eating their fruit and veg is good](#)
- Video 4 - [Fruits & Vegetables Song For Children](#)

##### Worksheets (WS) and Powerpoints (PTT)

- Worksheet 2 - What happens in the body?
- [PPT1 - What happens in the body?](#)
- Teacher Information Document (TID)

##### Materials

- Smartboard
- Classroom Poster
- Drawing materials

##### Preparation

##### Prior to lesson:

- Print 1 WS2 per student

## What happens in the body?

Students learn about the basics of what happens in your body when you eat fruits and vegetables. The journey of fruit or vegetables through the body is explored and the concept of energy from food, and what you do with it, is touched upon.

### Introduction (10 mins)

Use PPT1 to walk the students through the topic of 'digestion' and discuss the questions on the slides (i.e Why do we need to eat fruits and vegetables? How does our food move through our bodies? What body parts do we use for 'digestion'? What do our bodies get from the food we eat?) On the last slide, discuss the concept of 'energy from food' with the students and together brainstorm what their bodies do with the energy. Option to watch V3 for more in-depth information on some specific nutrients.

### Activity (30 mins)

1. Explain the activity on WS2 to the students and ask them to complete it and paste into their workbooks (if appropriate).
2. Once WS2 is finished, complete week 3 on the poster together with the whole class.

### Conclusion (5 mins)

As a class, ask who can explain again how fruit and vegetables move through their body and what their body uses them for. Ask them to consider what would happen if they wouldn't eat any fruit or vegetables.

### Assessment

**For:** Students are involved in discussion/brainstorm about digestion and energy

**As:** Students draw about what they have learned

**Of:** Students understand the concepts of digestion and energy

### Differentiation

**Extend:** Explain the concept of vitamins further with the students. What are they and what do they do? See the TID for more information. For more extension, play the boardgame from S1 lesson 3.

**Simplify:** Help the students to scribe their favourite fruit/vegetable and what they do with their energy. And/or watch [this song \(V4\)](#) about fruit and vegetables.

### School/Home Link

Students can identify all the fruits and vegetables they ate on a particular day, and then what they did with the energy from those on that day.

### Duration | 45 minutes





### Learning Outcomes

- **PDe-6** Explores contextual factors that influence an individual's health, safety, wellbeing and participation in physical activity
- **PDe-7** Identifies actions that promote health, safety, wellbeing and physically active spaces
- **ENe-9B** Demonstrates developing skills and knowledge in grammar, punctuation and vocabulary when responding to and composing texts
- **ENe-11D** responds to and composes simple texts about familiar aspects of the world and their own experiences



### Resources and Preparation

#### Resources

##### Video (V)

- Video 5 - [The colour changing celery experiment](#)

##### Worksheets (WS) and Powerpoints (PTT)

- Worksheet 3 - Cabbage experiment
- Teacher Information Document (TID)

##### Materials

- Classroom poster
- 1 cup/jar per student
- 1 cabbage leaf per student
- 4 colours of food colouring (the darker the better) (Tip: Use vegetable based colouring so it doesn't stain hands and clothes)
- Paper towels
- 1x WS3 per student
- Pencils/colouring pencils
- For step 9, you will need: other fruits and vegetables, skewers/food glue, knives, cutting board, bowls, forks

##### Preparation

###### Prior to lesson:

- Bring cabbage leaves, plastic/glass cups and food colouring
- Print 1 WS3 per student
- Prepare cups with water and food colouring

## Fruit & vegie experiments

Students will do an exciting experiment with cabbage. The students can become little food scientists themselves and get creative with colours, fruits and vegetables.

### Introduction (5 mins)

Explain to the students that you will be doing a real-life vegetable science experiment. Explain what an experiment is and that it will take several days.

Divide the students into groups of 4 and explain the first steps of the experiment to them.

### Activity (50 mins, across 3 days)

1. The students put their cabbage leaf into their cup.
2. Guided by the teacher, the students complete the science experiment measurements and reports for DAY 1 on WS3.
3. As a class, ask the students if they can guess what will happen and why.
4. Put the experiments away in the classroom and wait 1 day.
5. Complete DAY 2 on WS3.
6. Put the experiments away in the classroom and wait another day.
7. Finish WS3 and have the students cut out their drawing from each day and paste into their workbooks. Ask if they can see the difference from DAY 1 to DAY 3.
8. Complete Week 4 on the poster.
9. On the last day, the cabbage can be used to make a rainbow salad or funny cabbage faces can be created by decorating it with other fruits and vegetables such as blueberries and carrots.

### Conclusion (15 mins)

Ask the students if anyone can summarise their experiment. Discuss with the students why they think the cabbage changed colour. Would the same happen with another vegetable? How about flowers? Explain that plants need water and circulate it around to their leaves. Watch V5 for more information.

### Assessment

- For:** Students understand how to do their experiment
- As:** Student successfully complete their experiment
- Of:** Students collected data, made predictions and conclusions about their experiment

### Differentiation

- Extend:** Try out other vegetables (e.g. celery) and even (white) flowers to see if they also change colour.
- Simplify:** Do the experiment as a whole class and complete WS3 in groups or also with the whole class.

### School/Home Link

Coloured cabbage leaves could be used in salads/sandwiches in the canteen.

### Duration | 70 minutes



## CLASSROOM ACTIVITIES

### STAGE ONE LESSON ONE



#### Learning Outcomes

- **ST1-4LW-S** describes observable features of living things and their environments
- **MA1-CSQ-01** Uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning



#### Resources and Preparation

##### Resources

##### Video (V)

- Video 6 - [How does a seed become a plant?](#)

##### Worksheets (WS) and Powerpoints (PTT)

- [PowerPoint 4 - How do fruits and vegetables grow?](#)
- Worksheet 4 - Counting fruits and vegies
- Teacher Information Document (TID)

##### Materials

- Student's Crunch & Sip fruit and veg
- Classroom poster
- Blank paper or interactive whiteboard
- (Colouring) pencils

##### Preparation

##### Prior to lesson:

- This lesson could be done during or immediately before Crunch & Sip
- Print 1x WS4 per student

## The science behind growing fruit & vegies

Students explore how fruits and vegetables grow and what they need to grow. They do calculations with their fruits and vegetables brought in for Crunch & Sip and pick the most popular one to be used for the classroom poster. They investigate their poster fruit/vegetable in more detail.

#### Introduction (5 mins)

Discuss with the students: What are fruits and vegetables and where do they come from? How/where do they grow and what do they need to grow? Brainstorm onto blank display posters or the interactive whiteboard.

#### Activity (40 mins)

1. Ask the students to get their Crunch & Sip fruit or veg.
2. Together with the whole class, use page 1 of WS4 to do some calculations with your student's Crunch & Sip fruits and vegetables.
3. Watch V6 or use PPT4 to learn about fruits and vegetables going from seed to plants and what they need to grow. Or find a video about your chosen fruit/vegetable for the classroom poster (see TID for suggestions).
4. Individually, students can complete page 2 of WS4. After, explain the classroom poster to the students and choose which fruit or vegetable will feature on the classroom poster.
5. Investigate the chosen fruit/vegetable for the poster together with the class. Have one student complete Week 1 on the classroom poster. Students keep track of their plants over the next weeks.

#### Conclusion (5 mins)

Students can share with the class what their favourite fruit or vegetable is, and using their drawing on WS4, explain how it grows and what it needs to grow.

#### Assessment

- For:** Students understand how fruits and vegetables grow.
- As:** Students use what they have learned and apply to their own favourite fruit or vegetable.
- Of:** Students correctly solve the fruit and vegetable math problems.

#### Differentiation

- Extend:** Students can brainstorm about how to control and speed up the growth of the plant (i.e. greenhouses, automatic watering systems, fertilising, etc).
- Simplify:** Skip page 2 of WS4, or do as a whole class.

#### School/Home Link

Students can use what they learned to explore fruits and vegetables in their own environment, together with their parents/carers

Duration | 50 minutes



## CLASSROOM ACTIVITIES

### STAGE ONE LESSON TWO



#### Learning Outcomes

- **EN1-RECOM-01** comprehends independently read texts that require sustained reading by activating background and word knowledge, connecting and understanding sentences and whole text, and monitoring for meaning
- **ST1-5LW-T** identifies how plants and animals are used for food and fibre products
- **MA1-CSQ-01** uses number bonds and the relationship between addition and subtraction to solve problems involving



#### Resources and Preparation

##### Resources

##### Video (V)

- Video 2 - [How did that get in my lunchbox?](#)

##### Worksheets (WS) and Powerpoints (PTT)

- Worksheet 5 - From farm to fork
- Teacher Information Document (TID)
- [PowerPoint 2 - From farm to fork](#)

##### Materials

- 1 printed WS5 per student
- Classroom poster
- Scissors
- Glue
- Drawing materials
- Workbooks
- (Optional) ["How did that get in my lunchbox" book](#)

##### Preparation

##### Prior to lesson:

- Print 1x WS5 per student

## The farm to fork process

Students learn about the journey of fruits and vegetables, as they travel from 'farm to fork'. They discuss the process of harvest, transport and storage of different fruits and vegetables. They learn about concepts such as supply chain and food safety.

#### Introduction (5 mins)

Ask the class if they remember where and how their fruits and vegetables grow and review the previous lesson together. Now ask the students if they ever thought about how their fruit or vegetables get from where they grow, to the grocery shop and then into their lunchbox. Brainstorm together.

#### Activity (40 mins)

1. Read the book "How did that get in my lunchbox", or watch the video (V2) together with the class.
2. Discuss the book and explain anything the students did not understand.
3. Using PPT2, the teacher can explain some concepts related to the farm to fork process (including food safety and storage options).
4. Explain that the process for carrots is all mixed up on their WS5 and they can cut out, complete, order and paste the pictures into their workbook (and colour in if there is time).

#### Conclusion (10 mins)

Mention the fruit/veg chosen for the poster and brainstorm with the students about how they think it makes it from 'farm to fork'. Ask them to apply what they have learned by discussing or looking up information about the poster fruit/vegetable and completing Week 2 on the classroom poster.

#### Assessment

- For:** Students understood the fruit & veg 'farm to fork process' .
- As:** Students put 'farm to fork' flowchart in the correct order and successfully tally up the carrots.
- Of:** Students successfully complete the flowchart in their workbook.

#### Differentiation

- Extend:** Students can explore further discussions about the supply chain and its impact on the environment. Consider questions such as: why is a shorter supply chain better for the environment?
- Simplify:** There can be less focus on teaching about the supply chain and more on how to store their food properly and why it is important to do so.

#### School/Home Link

Students can ask their parents/carers where the fruit and vegetables in the house came from, check how far and how it 'travelled to their fork'.

#### Duration | 55 minutes



## CLASSROOM ACTIVITIES

### STAGE ONE LESSON THREE



#### Learning Outcomes

- **PD1-6** Understands contextual factors that influence themselves and others' health, safety, wellbeing and participation in physical activity
- **MA1-GM-02** measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres
- **ST1-5LW-T** identifies how plants and animals are used for food and fibre products



#### Resources and Preparation

##### Resources

##### Video (V)

- Video 7 - [Show younger children why eating their fruit and veg is good](#)

##### Worksheets (WS) and Powerpoints (PTT)

- Worksheet 6 - Digestion board game
- Worksheet 7 - What happens in the body?
- [PowerPoint 1 - What happens in the body?](#)
- Teacher Information Document (TID)

##### Materials

- Classroom poster
- Dice (1 per group)
- Rulers (1 per group)
- Pencils
- Paper
- Drawing materials

##### Preparation

##### Prior to lesson

- Print out WS6 (1 per group) and tape

## What happens in the body?

Through playing a board game, students learn about the basics of what happens in your body when you eat your fruits and vegetables. Students learn about how/why the body takes vitamins, fibre and energy from fruits and vegetables.

#### Introduction (15 mins)

Show students PPT1 about digestion. Discuss with the students (i.e Why do we need to eat fruits and vegetables? How does our food move through our bodies? What body parts do we use for 'digestion'? What do our bodies get from the food we eat?). Option to watch V7 for more in-depth information on some specific nutrients.

#### Activity (30 mins)

1. Divide the class into groups of 4-5.
2. On WS7, all students complete the graphic. At the same time, assign one student to complete Week 3 on the classroom poster.
3. Each group will then play the 'Fruit & Veg Digestion' game (WS6). They can draw their favourite fruit or vegetable to use as their pawn for the board game. They read the instructions of the space they land on after rolling the dice.

#### Conclusion (10 mins)

Back as a whole class, ask who can explain again how fruit and vegetables move through their body and what their body uses them for. Ask students to consider what would happen if they didn't eat any fruit or vegetables and have a discussion about their thoughts and opinions.

#### Assessment

- For:** Students are involved in discussion/brainstorm about digestion and energy.
- As:** Students successfully play the digestion board game.
- Of:** Students understand the concepts of digestion and energy.

#### Differentiation

- Extend:** Aside from energy, the concept of vitamins and minerals can be further discussed and explored with the students.
- Simplify:** Play the game with the whole class.

#### School/Home Link

Students can identify all the fruits and vegetables they ate in one day, and then how they used the energy from those on that day.

#### Duration | 55 minutes



## CLASSROOM ACTIVITIES

# STAGE ONE LESSON FOUR



### Learning Outcomes

- **MA1-DATA-01** gathers and organises data, displays data in lists, tables and picture graphs
- **ST1-1WS-S** observes, questions and collects data to communicate and compare ideas



### Resources and Preparation

#### Resources

##### Video (V)

- Video 8 - [The colour changing celery experiment](#)

##### Worksheets (WS) and Powerpoints (PTT)

- Worksheet 8.1 - Celery stems, cabbage leaves and flowers
- Worksheet 8.2 - Storage experiment
- Worksheet 8.3 - Growing seeds
- [Powerpoint 3 - Experiment](#)
- Teacher Information Document (TID)

##### Materials

- See TID for specific material lists per experiment
- Classroom poster

#### Preparation

##### Prior to lesson

- See TID for specific preparation instructions per experiment

## Fruit & vegie experiments

Students will pick, plan, research and implement an exciting experiment with fruit and/or vegetables. Through the experiment, students either learn about capillary action, the effect of packaging or how to grow seeds the quickest. Students can present their findings to the class, school or even the community.

### Introduction (10 mins)

Explain to the students that you will be doing a science experiment with fruit/vegetables. You can use PPT3 to explain to the students what an experiment is, and watch V8 to learn about one of the experiments in this lesson. The experiment in WS8.1 could first be done first with the whole class, to model an experiment for the students.

### Activity (60-120 mins, spread over several days)

1. As a class, choose an experiment to do in class (see TID and WS8.1-8.3)
2. Divide the class into groups of 3-4. Each group will test a different condition in the experiment
3. Together with the class, walk through the steps in the worksheet and guide them in doing their research and answering the questions.
4. Students continue to collect data and make notes over several days. Depending on the experiment chosen, the length of time will vary (see TID).
5. When finished, students will answer the questions about their findings and, if possible, complete the graph.
6. Discuss with the students what they think of doing 'research' and fill out the classroom poster for one of the experiments.
7. On the last day, the cabbage can be used to make a rainbow salad or funny cabbage faces can be created by decorating it with other fruits and vegetables such as blueberries and carrots.

### Conclusion (5 mins)

Ask the students if anyone can summarise their experiment for the rest of the class. What data did they collect and what were their findings? Was it what they expected? Can they explain WHY they found what they did? Other students can ask each group questions about their experiment.

### Assessment

- For:** Students understand how to do their experiment  
**As:** Student successfully complete their experiment  
**Of:** Students collected data, made predictions and conclusions about their experiment

### Differentiation

- Extend:** Students can create posters or PowerPoint slides about their experiment and present to the class/school/community (perfect to combine this with an organised School Science Fair).  
**Simplify:** Follow lesson 4 for ES1.

### School/Home Link

Coloured cabbage leaves and celery stems could be used in salads/sandwiches in the canteen. Flowers could be used as decoration in class.

**Duration | 75-135 minutes**



## CLASSROOM ACTIVITIES

### STAGE 2 LESSON ONE



#### Learning Outcomes

- **ST2-4WT** compares features and characteristics of living and non-living things
- **MA2-AR-01** selects and uses mental and written strategies for addition and subtraction involving 2- and 3-digit numbers



#### Resources and Preparation

##### Resources

##### Video (V)

- Video 9 – [How do plants grow for kids](#)

##### Worksheets (WS) and Powerpoints (PTT)

- [PowerPoint 4 - How do fruits and vegetables grow?](#)
- Worksheet 9 - Counting with your Crunch & Sip
- Teacher Information Document (TID)

##### Materials

- Student's Crunch & Sip fruit and veg
- Classroom poster
- Blank paper or interactive whiteboard
- (Colouring) pencils

##### Preparation

##### Prior to lesson:

- This lesson could be done during or immediately before Crunch & Sip
- Print 1x WS9 per student

# The science behind growing fruit & vegies

Students explore how fruits and vegetables grow and what they need. They do calculations with their fruits and vegetables brought in for Crunch & Sip and pick the most popular one to be used for the poster. They investigate their poster fruit/vegetable in more detail.

#### Introduction (5 mins)

Discuss with students: What are fruits and vegetables and where do they come from? How/where do they grow and what do they need? Brainstorm onto blank display posters or interactive whiteboard.

#### Activity (35 mins)

1. Ask the students to get their Crunch & Sip fruit or vegetables.
2. Together with the whole class, use WS9 to do some calculations with your student's Crunch & Sip fruits and vegetables (question 1-5).
3. Individually, the students complete the fruit and veg calculations on the worksheet (questions 7&8).
4. Explain what the classroom poster will be used for and choose which fruit/vegetable the class will use for the poster.
5. Watch V9 and/or use PPT4 to learn about how plants grow. Alternatively, find a video about your selected fruit/vegetable for the poster (see TID for some videos about common fruits and vegetables).
6. Complete Week 1 on the classroom poster.
7. The class can complete WS9 (questions 9-12).

#### Conclusion (15 mins)

Start a further discussion or brainstorm using the questions in the last slide of PPT4. For example, discuss why plants are so important to humans. Why are some locations more suited for the growth of certain fruit and vegetables than others? For example; can bananas grow anywhere? Why not? Can students think of any way that would allow bananas to grow in a colder climate? How about methods to grow bananas faster, keep them safe from pests, or produce higher quantities?

#### Assessment

- For:** Students understand how fruits and vegetables grow.
- As:** Students use what they have learned and apply to their own favourite fruit or vegetable.
- Of:** Students correctly solve the fruit and vegetable math problems.

#### Differentiation

- Extend:** Dive deeper into the science of fruits and vegetables: e.g. 'what is the difference between fruits and vegetables', what is photosynthesis' or 'what nutrients do plants need to grow?' (see TID).  
Or use lesson 1 for Stage 3 to discuss technologies used in agriculture.
- Simplify:** Visit the school garden together and watch growing plants in action (if no school garden, watch clips of growing plants on YouTube)

#### School/Home Link

Students can use what they learned to explore fruits and vegetables in their own environment, together with their parents/carers.

**Duration | 55 minutes**



**Learning Outcomes**

- **ST2-3DP-T** - defines problems, describes and follows algorithms to develop solutions
- **MA2-AR-01** selects and uses mental and written strategies for addition and subtraction involving 2- and 3-digit numbers
- **MA2-MR-02** completes number sentences involving multiplication and division by finding missing values
- **MA2-GM-01** uses grid maps and directional language to locate positions and follow routes/values



**Resources and Preparation**

**Resources**

**Worksheets (WS) and Powerpoints (PTT)**

- Worksheet 10 - Banana supply chain
- Teacher Information Document (TID)
- [PowerPoint 2 - From farm to fork](#)

**Materials**

- Computers/laptops/tablets with an internet connection
- Classroom Poster
- [Flowchart documents](#)

**Preparation**

**Prior to lesson:**

- Check if the flowchart program works
- Print 1x WS10 per student

# The farm to fork process

Students learn about the journey of fruits and vegetables, as they travel from 'farm to fork'. They discuss the process of harvest, transport and storage of different fruits and vegetables. They learn what a supply chain looks like and they create their own banana supply chain flowchart.

**Introduction (5 mins)**

Students talk about growing their own foods at home (link back to them learning about local foods in Lesson 1). Ask students if they know anyone who grows their own fruits and/or vegetables. Elaborate by asking what they grow and how they grow it.

**Activity (45 mins)**

1. In pairs, students discuss what the 'farm to fork' process might be for the fruit/vegetable chosen for the classroom poster. Do they think all the harvested produce makes it to 'their fork' (i.e. the shops/canteen/restaurants)? Which ones make it and which ones don't? What happens to those that don't? They can research online and complete Week 2 on the classroom poster.
2. Use PPT2 ( slides 10-11) to explain to the students what a flowchart is, and what it is used for. Explain how they will make their own flowchart for bananas.
3. Using an [online flowchart builder](#) and WS10, students create a flowchart for the supply chain of bananas. If needed, a pre-made file can be used to make it easier, You can find all

**Conclusion (15 mins)**

Every flowchart might look different at the end, but they will still all be correct. Students can show their flowchart to the class and explain how to read it. Use slide 12 of PPT2 to start a class discussion.

**Assessment**

- For:** Students understood new concepts such as 'flowchart' and 'food safety'.
- As:** Students use an example and information sheet to correctly make or finish a banana flowchart.
- Of:** Students successfully complete the flowchart.

**Differentiation**

- Extend:** Students can have further discussions about the supply chain and its impact on the environment. Consider questions such as: why is a shorter supply chain better for the environment?
- Simplify:** To make the work more challenging, go over PPT2 slides 13-15 and require students to use the different shapes in their flow chart.

**School/Home Link**

Students can ask their parents/carers where the fruit and vegetables in the house came from, check how far and how it 'travelled to their fork'.

**Duration | 65 minutes**



## CLASSROOM ACTIVITIES

### STAGE 2 LESSON THREE



#### Learning Outcomes

- **EN2-HANDW-02** uses digital technologies to create texts
- **EN2-RECOM-01** reads and comprehends texts for wide purposes using knowledge of text structures and language, and by monitoring comprehension
- **PD2-6** Describes how contextual factors are interrelated and how they influence health, safety, wellbeing and participation in physical activity



#### Resources and Preparation

##### Resources

##### Video (V)

- Video 10 - [How the digestive system works](#)
- Video 11 - [Journey inside your body to see how digestion works](#)

##### Worksheets (WS) and Powerpoints (PTT)

- Worksheet 11 - Brochure topics
- [PowerPoint 1 - What happens in the body?](#)
- Teacher Information Document (TID)

##### Materials

- Classroom poster
- Laptops/computers with internet
- Access to Canva, Powerpoint or Google slides

##### Preparation

##### Prior to lesson

- Print out 1 page (topic) per student from WS11

## What happens in the body?

This lesson will explore the journey of fruit and vegetables from ingestion to absorption. Students will learn how these foods are broken down and digested, and how vitamins are then absorbed and used by the body to stay healthy. Students create a (digital) brochure about a related topic.

#### Introduction (10 mins)

Explain to the students that, after exploring the journey of fruit and vegetables from seed to plant, and then from farm to fork, they will now explore the journey it takes when we eat it and what our body does with it. Brainstorm with the students about what they already know about this. Can they identify any body parts involved in the digestive system? And do they know what the body takes from fruit and vegetables? (i.e. vitamins and energy).

#### Activity (80 mins, spread over multiple days if needed)

1. For more information on the digestive system, the class can watch a fun video about it (V10). Or for a more in-depth informative video, you can watch V11. Complete Week 3 on the classroom poster. Use PPT1 if needed.
2. Divide the students into groups to work on a 1-page brochure. If needed, explain to the students what a brochure is and show how to make one. See an example in the TID.
3. Assign each group one of the 5 topics from WS11 and provide the matching information page to the groups.
4. On the topic page from WS11, the students will find information about their topic and leading questions they will need to find information on. They can use PowerPoint, Canva, Google Slides or even Word and find images on the internet. Alternatively, the brochure can be made on paper/ as a poster.

#### Conclusion (15 mins)

The brochures can be hung up on the classroom wall and each group of students can tell the class which topic they researched and what their main points were. The other students can ask the group questions about the topic.

#### Assessment

- For:** Students understand the concepts of digestion, energy and vitamins.
- As:** Students make a visually appealing brochure with correct information.
- Of:** Students were able to relay information about their topic in a brochure.

#### Differentiation

- Extend:** Students can make an online quiz about their topic and quiz other students or even the wider school community. They could also play the fun game from lesson 3 for Stage 1.
- Simplify:** Use PPT1 for a low-level look at digestion, and/or play the fun game in lesson 3 from Stage 1.

#### School/Home Link

Hang the brochures near the canteen, or include the brochures in a 'science fair' and invite the school community.

#### Duration | 105 minutes



## CLASSROOM ACTIVITIES

### STAGE 2 LESSON FOUR



#### Learning Outcomes

- **ST2-1WS-S** questions, plans and conducts scientific investigations, collects and summarises data and communicates using scientific representations
- **MA2-DATA-01** collects discrete data and constructs graphs using a given scale
- **ST2-2DP-T** selects and uses materials, tools and equipment to develop solutions for a need or opportunity



#### Resources and Preparation

##### Resources

##### Video (V)

- Video 12 - [Scientific Method for Kids](#) (start at 0:48)
- Video 13 - [The scientific method](#)
- Video 14 - [What are the steps of the scientific method?](#)

##### Worksheets (WS) and Powerpoints (PTT)

- Worksheet 12 - Fruit & Veg experiments
- [PowerPoint 3 - Experiments](#)
- Teacher Information Document (TID)

##### Materials

- See TID for specific material lists per experiment
- Classroom poster

##### Preparation

###### Prior to lesson

- See TID for specific preparation instructions per experiment

## Fruit & vegie experiments

Students will learn about the scientific method through doing their own experiment. They can learn about capillary action, ripening/rotting processes, or the effect of packaging. Students can present their findings to the class, school or even the community.

#### Introduction (10 mins)

Explain to the students that you will be doing a science experiment with fruits/vegetables. Ask the students if anyone can identify what a science experiment is. Follow up with questions such as: 'are there any specific rules when doing an experiment'? To learn about the scientific method, go over PPT2 and/or the class can watch V12. (Watch V13 for a more in-depth explanation.) Need an example to show the students? Watch V14.

#### Activity (60+ mins, across multiple days)

1. Divide the class into groups of 3-4. Choose one, or multiple experiments from the Week 4 TID section for the students to work on.
2. Students can use the experiment description in the TID, or can use their computers to research and design the experiment themselves. They will use WS12 to guide them through their research steps.
3. Over the time required for the experiment, students continue collecting data and making notes on WS12. After the last measurement, they write their findings and conclusions.
4. When finished, the groups of students share their findings to the class. Fill out Week 4 on the classroom poster using the notes and findings from one of the experiments.
5. As an option, students can create posters or PowerPoint/Google slides about their experiment and present to the class/school/community (perfect to combine this with an organised School Science Fair).

#### Conclusion (15 mins)

Ask the students if anyone can summarise their experiment for the rest of the class. What data did they collect and what were their findings? Was it what they expected? Can they explain WHY they found what they did? Other students can ask questions about the experiments.

#### Assessment

- For:** Students understand how to do their experiment and can independently design an experiment.
- As:** Student successfully complete their experiment.
- Of:** Students collected data, made predictions and formed conclusions about their experiment.

#### Differentiation

- Extend:** Students can independently create posters, presentations or news reports about their experiment and findings.
- Simplify:** Do only one experiment with the whole class.

#### School/Home Link

Invite the whole school community to a science fair, where the students can present their experiment.

#### Duration | 85+ minutes

## CLASSROOM ACTIVITIES

### STAGE 3 LESSON one



#### Learning Outcomes

- **MA3-AR-01** selects and applies appropriate strategies to solve addition and subtraction problems
- **ST3-4LW-S** Describes observable features of living things and their environments
- **ST3-5LW-T** explains how food and fibre are produced sustainably in managed environments for health and nutrition
- **EN3-RECOM-01** fluently reads and comprehends texts for wide purposes, analysing text structures and language, and by monitoring comprehension



#### Resources and Preparation

##### Resources

##### Video (V)

- Video 9 – [How do plants grow for kids](#)
- Video 15 – [15 Modern Farming technologies](#) (start at 1:58)

##### Worksheets (WS) and PowerPoints (PTT)

- Worksheet 13 - Fruit & Veg technologies
- Teacher Information Document (TID)

##### Materials

- Laptops/computers/tablets with internet
- Classroom poster

##### Preparation

##### Prior to lesson:

- Print 1 page per student from WS13

## The science behind growing fruit & vegies

Students learn about the basics of growing fruits and vegetables. They investigate modern solutions to common agricultural problems such as pests, space, quantities, climate change, biodiversity loss and water shortage. They compare current solutions, to solutions of the future.

#### Introduction (10 mins)

Watch V9 with the students to learn about how plants grow. Discuss some (new) concepts (e.g. photosynthesis) with the students and ask them to think about what growing fruit and vegetables looks like on a large scale. What kind of problems do they think they would run into?

#### Activity (45 mins)

1. Explain the classroom poster to the students, choose which fruit/vegetable the class will use for the Classroom Poster and complete Week 1.
2. Divide the students in groups and give each student in the group a common agricultural problem from WS13.
3. Together, they will go through the questions on the WS13 page, discuss among each other and research the answers about current and future solutions.
4. Watch V15 with the class, to explore some solutions of the future.

#### Conclusion (10 mins)

Ask each group to share with the class to explain the agricultural problem they explored, what is currently done about it and what could possibly be the 'solution of the future'.

#### Assessment

- For:** Students identify and think critically about agricultural problems and possible solutions
- As:** Students explore possible solutions by themselves
- Of:** Students correctly summarise the problem and solutions on the worksheet

#### Differentiation

- Extend:** Before looking up the solutions of the future, have the students design their own solution.
- Simplify:** Explore the problems and solutions as a whole class

#### School/Home Link

At home students can explore their fruits and vegetables and explore with their parents/carers what kind of technologies were used to grow it.

#### Duration | 65 minutes



## CLASSROOM ACTIVITIES

### STAGE 3 LESSON TWO



#### Learning Outcomes

- **ST2-3DP-T** - defines problems, describes and follows algorithms to develop solutions
- **MA2-AR-01** selects and uses mental and written strategies for addition and subtraction involving 2- and 3-digit numbers
- **MA2-MR-02** completes number sentences involving multiplication and division by finding missing values
- **MA2-GM-01** uses grid maps and directional language to locate positions and follow routes



#### Resources and Preparation

##### Resources

##### Worksheets (WS) and PowerPoints (PTT)

- Worksheet 14 - Banana supply chain
- Teacher Information Document (TID)
- PowerPoint 2 - From farm to fork

##### Materials

- Computers/laptops/tablets with an internet connection
- Classroom poster
- [Flowchart documents](#)

##### Preparation

###### Prior to lesson

- Print 1x WS14 per student

## The farm to fork process

Students learn about the journey of fruits and vegetables as they travel from 'farm to fork'. They investigate the process of harvesting, transporting and storage of different fruits and vegetables. They learn about supply chains and they create their own banana supply chain flowchart.

#### Introduction (10 mins)

Review the previous lesson and query the students about how they think their fruits and vegetables made it from 'the farm to their fork'. Use PPT2 (slides 1-9) to introduce students to the concepts of 'supply chains' and 'food safety'.

#### Activity (45 mins)

1. In pairs, students discuss what the 'farm to fork' process might be for the fruit/vegetable chosen for the poster. Do they think all the harvested produce makes it to 'their fork' (i.e. the shops/canteen/restaurants)? Which ones make it and which ones don't? What happens to those that don't? They can research online and complete week 2 on the classroom poster.
2. Use PPT2 (slides 10-11) to explain to the students what a flowchart is, and what it is used for. Explain how they will make their own flowchart for bananas. If looking for more challenging work, go over slides 13-15 as well and have students use the different shapes in their flow chart in step 3.
3. Using an [online flowchart builder](#) and WS14, students create a flowchart for the supply chain of bananas. If needed, a pre-made file can be used to make it easier. You can find all needed documents [here](#). Use the TID to show students how to work in the online flowchart builder.

#### Conclusion (10 mins)

Every flowchart might look different at the end, but they will (should) still all be correct. Students can show their flowchart to the class and explain how to read it. Use slide 12 of PPT2 to start a class discussion.

#### Assessment

- For:** Students understood new concepts such as 'supply chain' 'flowchart' and 'food safety'
- As:** Students use an example and information sheet to correctly make or finish a banana flowchart
- Of:** Students successfully complete the flowchart

#### Differentiation

- Extend:** Students can have further discussions about the supply chain and its impact on the environment. Consider questions such as: why would a shorter supply chain be better for the environment?
- Simplify:** If needed, an already pre-made file (see TID) can be used, where students need to complete the order and numbers.

#### School/Home Link

At home the students can check where the food in their house has come from check how far and how it 'travelled to their fork'.

#### Duration | 65 minutes





### Learning Outcomes

- **EN2-HANDW-02** uses digital technologies to create texts
- **EN2-RECOM-01** reads and comprehends texts for wide purposes using knowledge of text structures and language, and by monitoring comprehension



### Resources and Preparation

#### Resources

##### Video (V)

- Video 10 - [How the digestive system works](#)
- Video 11 - [Journey inside your body to see how digestion works](#)

##### Worksheets (WS) and PowerPoints (PTT)

- Worksheet 11 - Brochure topics
- Powerpoint 1 - What happens in the body?
- Teacher Information Document (TID)

##### Materials

- Classroom Poster
- Laptops/computers with internet
- Access to Canva, Powerpoint or Google slides

##### Preparation

###### Prior to lesson

- Print out 1 page (topic) per student from WS11

## What happens in the body?

This lesson will explore the journey of fruit and vegetables from ingestion to absorption. Students will learn how these foods are broken down and digested, and how vitamins are then absorbed and used by the body to stay healthy. Students create a (digital) brochure about a related topic.

### Introduction (10 mins)

Explain to the students that, after exploring the journey of fruit/veg from seed to plant, and then from farm to fork, now they will explore the journey it takes when we eat it and what our body does with it. Brainstorm with the students about what they already know about this. Can they identify any body parts involved in the digestive system? And do they know what the body takes from the fruit/vegetables? (i.e. vitamins and energy).

### Activity (80 mins, spread over multiple days if needed)

1. For more information on the digestive system, the class can watch a fun video about it (V10). Or for a more in-depth informative video, you can watch V11. Complete Week 3 on the classroom poster. Use PPT1 if needed.
2. Explain to the students that they will now be divided into groups and make a 1-page brochure. If needed, explain to the students what a brochure is and show how to make one. See an example in the TID.
3. Assign each group one of the 5 topics from WS11 and provide the matching information page to the groups.
5. On the topic page from WS11, the students will find information about their topic and leading questions they will need to find information on. They can use PowerPoint, Canva, Google Slides or even Word and find images on the internet. Alternatively, the brochure can be made on paper/ as a poster.

### Conclusion (15 mins)

The brochures can be hung up on the classroom wall and each group of students can tell the class which topic they researched and what their main points were. The other students can ask the group questions about the topic.

### Assessment

- For:** Students understand the concepts of digestion, energy and vitamins
- As:** Students make a visually appealing brochure with correct information
- Of:** Students were able to relay information about their topic in a brochure

### Differentiation

- Extend:** Students can make an [online quiz](#) about their topic and quiz other students or even the wider school community
- Simplify:** Use PPT1 for a low-level look at digestion, and/or play the fun game from Stage 1 lesson 3.

### School/Home Link

Hang the brochures near the canteen, or include the brochures in a 'science fair' and invite the school community.

**Duration | 105 minutes**

## CLASSROOM ACTIVITIES

### STAGE 3 LESSON FOUR



#### Learning Outcomes

- **MA3-DATA-01** constructs graphs using many-to-one scales
- **ST3-1WS-S** plans and conducts scientific investigations to answer testable questions, and collects and summarises data to communicate conclusions
- **ST3-2DP-T** plans and uses materials, tools, and equipment to develop solutions for a need or opportunity
- **EN3-1A** communicates effectively for a variety of audiences and purposes using increasingly challenging topics, ideas,



#### Resources and Preparation

##### Resources

##### Video (V)

- Video 12 - [Scientific Method for Kids](#) (start at 0:48)
- Video 13 - [The scientific method](#)
- Video 14 - [What are the steps of the scientific method?](#)

##### Worksheets (WS) and PowerPoints (PTT)

- Worksheet 15 - Fruit & Veg experiments
- PowerPoint 3 - Experiments
- Teacher Information Document (TID)

##### Materials

- See TID for specific material lists per experiment
- Classroom poster

##### Preparation

##### Prior to lesson

- See TID for specific preparation instructions per experiment

## Fruit & Vegie experiments

Students will learn about the scientific method through doing their own experiment and learn about capillary action, ripening/rotting processes, or the effect of packaging. Students can present their findings to the class, school or even the community.

#### Introduction (15 mins)

Explain to the students that you will be doing a science experiment with fruit/vegetables. Ask the students if anyone can identify what a science experiment is. Follow up with questions such as: 'are there any specific rules when doing an experiment'? To learn about the scientific method, the class can watch V12. (Or watch V13 for a more in-depth explanation.) Need an example to show the students? Watch V14.

#### Activity (60+ mins, across multiple days)

1. Divide the class into groups of 3-4. Choose one, or multiple experiments from the Week 4 TID section for the students to work on.
2. Students can use the experiment description in the TID, or use their computers to research and design the experiment themselves. They will use WS15 to guide them through their research steps.
3. Over the time required for the experiment, students continue collecting data and making notes on WS15. After the last measurement, they write their findings and conclusions.
4. When finished, the groups of students share their findings to the class. Fill out Week 4 on the classroom poster using the notes and findings from one of the experiments.
5. As an option, students can create posters or PowerPoint/Google slides about their experiment and present to the class/school/community (perfect to combine this with an organised School Science Fair).

#### Conclusion (15 mins)

Ask the students to present their experiment findings/results to the class and answer the following questions: What data did they collect and what were their findings? Was it what they expected? Why/why not? Can they explain why they found what they did? And what does it mean? Can they think of any follow-up experiments?

#### Assessment

- For:** Students understand how to do their experiment and can independently design an experiment
- As:** Student successfully complete their experiment
- Of:** Students collected data, made predictions and formed conclusions about their experiment

#### Differentiation

- Extend:** Students can independently create posters or presentations about their experiment.
- Simplify:** Use the WS12 from Stage 2 lesson 4 to give the students more guidance, or have the whole class do one experiment together.

#### School/Home Link

Invite the whole school community to a science fair, where the students can present their experiment

Duration | 85+ minutes