



Travelwise Unit Plan

Prior Knowledge:	Level:	Values:	Key Competencies:	Integration Suggestions:
<p>Before starting the unit ascertain students understanding of the following concepts: What do the following words mean?</p> <ul style="list-style-type: none"> • Transport • Active • Sustainable 	<p>Level 1 Level 2 Level 3 Level 4</p> <p>Teachers to highlight relevant level</p>	<p>Excellence Innovation Diversity Equity Community and participation Ecological sustainability Integrity Respect</p>	<p>Thinking Managing Self Participating and contributing Relating to others</p>	<p>English The Arts Health & PE Learning Languages Mathematics and Statistics Science Social Sciences Technology</p>
Key Concept Understanding:	Driving Questions:	Subsidiary Questions: These are the questions that students will be able to respond to.		
<ul style="list-style-type: none"> • There are many ways to travel to school other than in a car. • Every form of transport has a positive and negative impact. • When we choose an active/sustainable form of transport it benefits people, places and the environment. • The way we travel in the future will change as communities develop. 	<p>Can we find an active and sustainable way to get to and from school?</p>	<ol style="list-style-type: none"> 1. Describe which forms of transport are more active/sustainable. 2. Explain the reasons why we need to use active/sustainable transport. 3. Discuss the impact of using non-sustainable forms of transport on our personal life /family, school, community and country. 4. Reflect on the transport choices we have made and explain how we can continue our progress. 		

Achievement Objectives

Select the achievement objectives that best match the abilities of your students.

Speaking, Writing & Presenting

Students will:

Purposes and audiences

- Recognise that texts are shaped for different purposes and audiences. (Level 1)
- Show some understanding of how to shape texts for different purposes and audiences. (Level 2)
- Show a developing understanding of how to shape texts for different purposes and audiences. (Level 3)
- Show an increasing understanding of how to shape texts for different purposes and audiences. (Level 4)

Ideas

- Form and express ideas on a range of topics. (Level 1)
- Select, form and express ideas on a range of topics. (Level 2)
- Select, form, and communicate ideas on a range of topics. (Level 3)
- Select, develop, and communicate ideas on a range of topics. (Level 4)

Language Features

- Use language features showing some recognition of their effects. (Level 1)
- Use language features appropriately, showing some understanding of their effects. (Level 2)
- Use language features appropriately,

Learning Intentions:

English

WALT: (Level 1)

- List all the ways we can get to school
- Write a set of directions
- Identify the positive and negative (good and bad) things about each type of transport
- Create a display using the key words, ideas and images based on the theme
- Write a set of directions showing how we get to school
- Brainstorm a set of rules to stay safe in vehicles
- Write about how we get to and from school each day
- Read non-fiction books on the topic of transport
- Write a poem with a Travelwise theme
Insert the name of the poem model e.g. Sense

WALT: (Level 2)

- Write a set of directions that someone else can follow
- Plot our route on a map
- Write a set of instructions for someone who has never travelled on public transport before
- Write a set of rules/guidelines for travelling safely to and from school on a chosen mode of transport
- Write a letter to the Principal using persuasive language to outline an issue of concern
- Create a postcard that has the following elements:
 - address
 - brief message
 - illustration
- Use different mediums to recount our travel experiences
- Explain in writing how something works or happens
- Create an advertisement that has the following features:
 - a clear Travelwise message

Learning Experiences:

Learning Experiences

Select the learning experiences that best match the abilities of your student and that support your learning intentions. You may choose to structure these learning experiences within an inquiry cycle as a means of achieving effective thinking and action outcomes. Developing students' action competence is a key outcome of road safety education.

Procedural Writing

1. List – How many ways can you get to school? (Level 1)

Class to brainstorm and discuss all the different ways you can get to and from school.

Introduce key words such as walk, bike, scooter, bus, train, car etc...

Introduce and discuss the key concepts such as transport, active and sustainable.

Ask the class to identify the advantages (good things), disadvantages (bad things) for each type of transport. Compare and contrast these. Students can choose a type of transport they like and draw a picture to illustrate it.

Create a display using the list, the key words, concepts, pictures, images, advantages and disadvantages.

2. Directions (Level 1,2,3,4)

Students can write a set of directions showing how they travelled to and from school using their chosen mode of transport (e.g. walking, cycling, scooting, catching the bus or train).

They can then plot the route they travelled on a local map. The whole class may wish to plot their routes on a larger map and label with photos, comments and observations.

showing a developing understanding of their effects. (Level 3)

- Use a range of language features appropriately, showing an increasing understanding of their effects. (Level 4)

Structure

- Organise texts using simple structures. (Level 1)
- Organise texts, using a range of structures. (Level 2)
- Organise texts, using a range of appropriate structures. (Level 3)
- Organise texts using a range of appropriate structures. (Level 4)

Processes and strategies

- Integrate sources of information, processes, and strategies with developing confidence to identify, form and express ideas. (Level 3)
- Integrate sources of information, processes, and strategies confidently to identify, form and express ideas. (Level 4)

English – Listening, Reading & Viewing

Purposes and audience

- Recognise that texts are shaped for different purposes and audiences. (Level 1)
- Show some understanding of how texts are shaped for different purposes and audiences. (Level 2)
- Show a developing understanding of how texts are shaped for different audiences and purposes. (Level 3)
- Show an increasing understanding of how texts are shaped for different purposes and audiences. (Level 4)

- clear font, format and colour
- event details (where, when, what etc.)
- Create a brochure that has the following elements:
 - a description of each type of transport
 - an illustration that supports text
- Read a news article and identify the who, what, when, where, why/how
- Read non-fiction books on the topic of transport
- Write a poem with a Travelwise theme
Insert the name of the poem model e.g. Acrostic

WALT: (Level 3)

- Write a detailed set of directions that someone else can follow
- Plot our route on a map and add a scale and key
- Write a detailed set of instructions for someone who has never used public transport.
(Insert the mode of transport chosen e.g. bus)
- Write a letter to the Principal using persuasive language to outline an issue of concern and a potential solution
- Create a postcard that has the following elements:
 - address
 - brief message
 - illustration
 - descriptive language (to describe physical features; land marks, road safety etc...)
- Use different mediums to recount our travel experiences
- Explain in writing how something works or happens and provide labels and a diagram to support it
- Design an advertisement that has the following features:
 - a clear Travelwise message
 - persuasive language (emotive words)
 - clear font, format and colour
 - event details (where, when, what etc.)
- Create a brochure that has the following elements:
 - a description of each type of transport used
 - illustration that supports text
 - a diagram of the local area

3. Instructions (Level 2,3,4)

Students can write a set of instructions for how to catch a bus, train or ferry. Students can use their school as a starting point.

They may want to consider including the following elements:

- location of bus station/stop, train station or ferry terminal
- time table
- cost (ticket)
- duration of trip
- potential hazards to avoid

4. Rules/Guidelines (Level 1,2,3,4)

Get students to brainstorm and record a set of rules/guidelines for one of the following topics:

- Riding on a bus/train
- Walking to school
- Riding a bike/skateboard/scooter to school

(Refer to the Ministry of Education: School Transport Fact Sheets 7,8,9 for information on buses).

Extension: Create a class or school Road Safety Policy.

4. Letter to the Principal (Level 3,4)

Whole class - shared writing, group, individual

Class to brainstorm road safety issues and traffic problems that may affect their school (e.g. cars speeding, air pollution, people parking on yellow lines).

Get students to identify possible actions the school could take to solve some of these issues. Students can write a letter to the principal stating what their issue is, providing some background information and putting forward their ideas to resolve it.

Extension: Write a Letter to the Editor of a local newspaper.

5. Postcard (Level 2,3)

This is a creative activity.

Ask the students to choose another area in their region, do some research on the place and work out how they could travel there sustainably.

Ideas

- Recognise and identify ideas within and across texts. (Level 1)
- Show some understanding of ideas within, across, and beyond texts. (Level 2)
- Show a developing understanding of ideas within, across, and beyond texts. (Level 3)
- Show an increasing understanding of ideas within, across, and beyond texts. (Level 4)

Language features

- Recognise and understand how language features are used for effect within and across texts. (Level 1)
- Show some understanding of how language features are used for effect within and across texts. (Level 2)
- Show a developing understanding of how language features are used for effect within and across texts. (Level 3)
- Show an increasing understanding of how language features are used for effect within and across texts. (Level 4)

Structure

- Recognise and begin to understand text structures. (Level 1)
- Show some understanding of text structures. (Level 2)
- Show a developing understanding of text structures (Level 3)
- Show an increasing understanding of text structures. (Level 4)

- Write a news article about one event that occurred
- Write and perform a rap
- Read a news article and identify the who, what, when, where, why/how
- Use reciprocal reading strategies to analyse a news article
- Read non-fiction books on the topic of transport
- Write a poem with a Travelwise theme
Insert the name of the poem model e.g. Haiku

WALT: (Level 4)

- Write a detailed set of directions that someone else can follow
- Plot our route on a map and add a scale, key and some photos
- Write a detailed set of instructions for someone who has never used public transport.
(Insert the mode of transport chosen e.g. bus)
- Write a set of rules/guidelines for travelling safely to and from school on your chosen mode of transport
- Create our own Road Safety Policy
- Write a letter to the Principal using persuasive language to outline an issue of concern and a potential solution
- Write a Letter to the Editor of a Local newspaper canvassing community support for a transport problem
- Use different mediums to recount our travel experiences
- Explain in writing how something works or happens and provide labels, maps and diagrams to support it
- Design an advertisement that has the following features:
 - a clear Travelwise message
 - persuasive language (emotive words)
 - clear font, format and colour
 - event details (where, when, what etc.)
- Create a brochure that has the following elements:
 - a description of each type of transport used
 - an illustration that supports text
 - a diagram of the local area
 - some symbols identifying pedestrian/kea crossings, cycle paths etc...

Pose the question:

Imagine you are visiting this place. I want you to write a postcard to your family explaining how you got to this destination and describe some landmarks you saw on the way.

The postcard should have: a colourful and detailed picture on the front, an address, a brief and informative message and be original.

Recount Travel Journal/Diary/Blog (Level 1)

Ask each student to write about their trip to school that day.
(Level 2,3,4)

Get each student to record how they got to and from school and the experiences they had in the process. Mediums might include: a written, video, photographic diary, journal or class blog.

Travelwise Poster/Advertisement (Level 2,3,4)

Students can design a poster advertising Travelwise. When creating it they should consider features such as: details of the event (date, time, activities, and location), message (purpose), layout (colour, images, font, and symbols), and audience (who is it aimed at) and gimmicks.

Travelwise Brochure (Level 2,3,4)

Students can design their own Travelwise Brochure showing different ways to get to school (walking, scooting, skateboarding, cycling etc...), include a map with good routes and the health benefits.

Explanations (Level 2,3,4)

1. Get the class to choose a road safety topic.
2. Make a list of all the things they already know about the topic.
3. Write down the things they will need to find out and the places to do their research.

- Write a news article about one event that occurred
- Add more detail to our news article by using features such as:
 - a photograph
 - a direct quote/vox pop
 - a breakout quote
 - an eyewitness account
 - a diagram/map/statistics box
- Write and perform a rap
- Video and upload our rap to a form of social media (e.g. YouTube)
- Use reciprocal reading strategies to analyse a news article
- Read non-fiction books on the topic of transport

4. Make notes on the subject.
5. Organise the information into sub headings.
6. Write an explanation, add labels, diagrams, graphs and tables.

Ideas for explanations might include:

- How Traffic Lights Work
- What happens when a car pollutes the air

News Article (individual/group) (Level 3,4)

Students can write a news article detailing one school event that ran.

A news article:

- has a title, by-line, introduction, main body and conclusion
- is based on facts (factual)
- may include eye witness accounts, quotes, vox pops, statistic boxes, maps, diagrams, comments and opinions
- may have pictures to support the story

The news article could be placed in the school newsletter or on the school website, Knowledge Net or Wiki Page

Travelwise Rap (Level 3,4)

A rap is when a person chants or rhymes lyrics in time to a musical beat. It has 3 main components: content, flow and delivery.

Students can write and perform a rap to showcase all the things they have, done, learnt, seen or experienced. See YouTube examples below:

Travelwise Rap by Nikau Syndicate – www.youtube.com/watch?v=gTXOz=AZ8_fl

Riverhills School Travelwise Rap – www.youtube.com/watch?v=7qnRfEnRY_o

The rap can be performed live, recorded, and videoed and uploaded to a secure website.

Travelwise Poetry (Level 1, 2, 3)

Students can write a range of poems. Models that lend themselves well to the topic are: Free Verse. Acrostic, Shape, Sense and Haiku Poems

Reading Tumblers:

Centres that teachers may want to include for Travelwise include:

- Read around the room – have a variety of Transport, Road Safety, Health or Sustainability posters, pamphlets or diagrams placed around the classroom (age/interest appropriate)
- Class library with topic based books
- Discovery Table with books and items based on the theme (e.g. Exercise = shorts, t-shirt, running shoes, cycle helmet, pedometer, high visibility vest, bike, skateboard, scooter, wrist bands, stop watch, knee pads, elbow pads, mouth guard, sunglasses, bus pass, WSB ticket)

Extension: Put bike, skateboard, and scooter parts instead which will build intrigue, exploration and discussion.

Current Events: Ask the students to bring news articles on different types of transport to school. Encourage them to look at both local and national newspapers.

News Book – Shared Reading (Level 1-4)

- Class to read and analyse news article focusing on the inquiry questions: Who? What? When? Where? Why? How?

News Book (Level 3-4)

Group Reciprocal Reading

- Give each group a different news article
- Get them to predict what the story is about (using the visual clues)
- Read the article and highlight key words
- Assess whether their predictions were correct and clarify unknown vocabulary
- Ask questions
- Summarise main ideas

Social Sciences

Social Sciences

Students will gain knowledge, skills and experience to:

Level 1

- Understand that people have different roles and responsibilities as part of their participation in groups.

Level 2

- Understand how people make choices to meet their needs and wants.
- Understand how places influence people and people influence places

Level 3

- Understand how people make decisions about access to and use of resources.

Level 4

- Understand how formal and informal groups make decisions that impact on communities.
- Understand how people participate individually and collectively in response to community challenges.

WALT : (Level 1)

- Identify what groups drive in the community. Why?
- Compare and contrast people who drive for a job (professionally) and those who drive for family or personal reasons

WALT: (Level 2)

- Identify the advantages and disadvantages of using a mode of transport
- Evaluate which mode of transport is most active and/or sustainable
- Pose problems involving transport and create possible solutions to address the issues
- Assess issues and rank according to personal experience and discuss the impact of each issue
- Compare and contrast two modes of transport in relation to set criteria. (i.e. health benefits, amount of resources used, environmental impact)

WALT: (Level 3)

- Compare and contrast different modes of transport
- Explain why people choose to use different kinds of transport
- Discuss the environmental impact of the transport choices we make
- Assess issues and rank according to different perspectives (e.g. family, school, businesses, government) and discuss the impact of each issue

WALT: (Level 4)

- Plan and implement positive transport choices within the class, school and/or community

To do the above the following WALTs will also need to be covered before a plan is made.

Social Sciences / English

The activities shown below examine the reasons why Travelwise was developed and peoples roles and responsibilities as members of a school and community. They can be used as isolated activities to build understanding or as part of an Inquiry Learning Approach. Either way they are springboard to further inquiry.

Y- Chart (Level 1)

The Y-Chart requires students to brainstorm ideas around three dimensions – *What it looks like, sounds like and feels like.* This activity encourages students to apply their senses and observations to the world around them.

Use the template to:

- Choose a form of transport (e.g. walking or catching a bus) and apply the 3 dimensions.
- Think about what it's like to be a passenger in a car driven by ...mum/dad/uncle/aunty/grandparents/care-givers.

Extension: Examine the roles of different people who drive in the community i.e. Bus Drivers, Train Drivers, Ferry Captains, Walking School Bus Drivers, Ambulance Drivers, Police, Fire-fighters

- What is the similarity or difference between these drivers and family members who drive?

(PMI) Plus Minus Interesting Chart (Level 2,3,4)

This chart helps students explore an issue of interest, identify the advantages/disadvantages and compare, contrast and evaluate an issue.

It is a useful decision making tool when comparing the benefits/costs of using different modes of transport.

- Cars v Walking
- Car v using a bus/train
- Walking v cycling
- Vehicles v environment
- Petrol Cars v electric cars

- Identify the current modes of transport to and from school and assess the impact of their current choices on our family, school and community
- Research alternative modes of transport available (with thought to how it impacts on health, time, cost and the environment)
- Compare and contrast the alternatives identified, rank them according to an agreed criteria and choose an option to explore further that would benefit your class, school and/or community

The Fishbone Activity (Level 2,3,4)

This activity provides a way of thinking about a problem. The head of the fish is the *Problem* posed, the scales on one side are the *Cause* and the other side is the *Effect*. The tail holds *Potential Solutions*.

Examples of problems posed may include:

Too many cars on the road cause traffic congestion and people are late for work and school.
More people are becoming unfit and overweight because they drive everywhere.

Cars pollute the air and humans breathe.
Parents are afraid to let their children walk or cycle to school.

Extension: Replace the Cause and Effect labels with deBono's Thinking Hats

Diamond Ranking: (Level 2, 3,4)

Pose a question: (examples shown below)

- Will the transport we use now have a long term effect on the environment?
- What types of transport will exist in 50 years from now and how will it change the way we travel?
- Will transport change the way communities look in the future?

In groups get students to brainstorm as many answers to the question as they can think of.

Write each answer on a piece of paper and rank it in a diamond pattern (see template) from *Most Important* to *Least Important*. Share your answers with the class and discuss the reasoning behind your choices.

Venn Diagram (Level 3,4)

Students use a Venn diagram to compare two things, people, places, events or issues. By recording aspects of similarity in the overlapping circle and aspects of difference in separate sections of the circles they can compare them.

Get students to create their own Venn Diagram using two forms of transport (e.g. car and bus, bike and skateboard, bus and train, car and walking)

Health and Physical Education

Health and Physical Education Strands:

Regular physical activity:

- Participate in creative and regular physical activities and identify enjoyable experiences. (Level 1)
- Experience creative, regular, and enjoyable physical activities and describe the benefits to well-being. (Level 2)
- Maintain regular participation in enjoyable physical activities in a range of environments and describe how these assist in the promotion of well-being. (Level 3)
- Demonstrate an increasing sense of responsibility for incorporating regular and enjoyable physical activity into their personal lifestyle to enhance well-being. (Level 4)

Community resources

- Identify and discuss obvious hazards in their home, school, and local environment and adopt simple safety practices. (Level 1)
- Identify and use local community resources and explain how these contribute to a healthy community (Level 2)
- Participate in communal events and describe how such events enhance the well-being of the community (Level 3)
- Investigate and/or access a range of community resources that support well-being and evaluate the contribution made by each to the well-being of community members (Level 4)

WALT: (Level 1-4) Modify according to level.

- Understand the link between the choices we make and our well-being
- Make statements about our choices and the way we impact the environment
- Explain how a job can positively or negatively affect a person's well-being (physically and mentally)

Why walk?

Ask students to investigate the benefits of walking instead of travelling by car. When brainstorming ideas, consider the following categories:

Hauora – Well-being

- Taha Tinana (Physical well-being)
- Taha Hinengaro (Mental & Emotional well-being - self-confidence)
- Taha Whanau (Social well-being - self-esteem)
- Taha Wairua (Spiritual well-being - personal beliefs).

Level 1 – Class to brainstorm. Teacher to help students investigate more in depth.

Level 2 – Group to brainstorm using the four headings of Hauora. Students to write inquiry based questions as a group to find out more in depth information with teacher support.

Level 3 - Group to brainstorm using the four headings of Hauora. Each group to choose a category to research more in depth.

Level 4 – Students to share their ideas with a peer and then report back to the class. Students to record each other's ideas and choose an area to research more in depth.

E.g. What happens to people who do not look after their health?

- Students to look at how lack of physical activity, good food and nutrition can affect a person's overall wellbeing.

Level (1,2,3) What does healthy and happy look like?

Get students to draw a picture of what they think a healthy person looks like. They could draw this person getting to places in a healthy way. They could draw a well balanced meal they might eat. From there they can brainstorm healthy lifestyle activities this person enjoys e.g. being smoke free, exercising, meeting friends, going to church, playing on a sports team and volunteering in the community.

Level 4

Ask students to discuss the sorts of problems that an unhealthy lifestyle can create. Get them to create a table

Rights, responsibilities, and laws/ People and the Environment

- Take individual and collective action to contribute to environments that can be enjoyed by all (Level 1)
- Contribute to and use simple guidelines and practices that promote physically and socially healthy classrooms, schools, and local environments (Level 2)
- Research and describe current health and safety guidelines and practices in their school and take action to enhance their effectiveness (Level 3)
- Plan and implement a programme to enhance an identified social or physical aspect of their classroom or school environment (Level 3)
- Specify individual responsibilities and take collective action for the care and safety of other people in their school and in the wider community (Level 4)

with three columns (Cause, Effect and Solution) and list their ideas for for the first two. Now ask them to imagine they have been asked to provide advice on lifestyle changes that could improve the health and wellbeing of people who suffer from some of these problems.

Example: Smoking

Cause – Smoking

Effect – Shortness of breath, asthma, lung cancer, premature aging

Solution – Advice would be to stop smoking with the aid of a proven social service such as Quitline.

The Big Picture (Levels 1-4, mini inquiry)

In what ways does using active/ sustainable transport impact on the environment?

Ask students to think about how the following things impact the environment:

- pollution (e.g. petrol fumes, rubbish)
- trees being cut down and land cleared to make roads
- the amount of energy and resources used to make car parts

If we continue to put more and more cars on the road, what do you think Auckland will look in 50 years time?

Jobs and Health (Level 1-4)

- Students to brainstorm a list of jobs. Which jobs require people to be active? Which jobs are inactive?
- Sort into categories (e.g. Level 1 Completely Inactive e.g. a job where people sit down for most of the day through to Level 5 - Completely Active e.g. a professional athlete).
- Choose 5 different jobs from across the lev allowances for this in the way you live your life? els and assess them according to criteria such as : physical activity, nutrition, stress levels, social satisfaction, community involvement, sense of achievement etc...

Please note that answers will be from a student's perspective and consequently varied.

- **Pose questions:** Does a job affect a person's lifestyle? If so, what does this mean for people who work in these jobs? E.g. If your job involved sitting down a lot, would you need to make allowances for this is the way you live your life?

Mathematics and Statistics

Mathematics & Statistics Measurement

- Give and follow instructions for movement, that involves distances, directions, and half or quarter turns.(Level 1)
- Create and use appropriate units and devices to measure length. (Level 2)
- Use linear scales and whole numbers of metric units, for length, area, volume, capacity, weight, angle, emperature and time. (Level 3)
- Convert between metric units, using whole numbers and commonly used decimals. (Level 4)

WALT: (Level 1-4)

- Estimate and count our steps to a chosen destination
- Convert metres into kilometres

How Many Steps?

Level 1 – Ask students to estimate and record how many steps they will need to take to reach different places in the classroom.

See template below for example of table.

Steps	Estimate	Actual
From desk to door	35	51

Please note that every child has a different foot size and consequently will take a different number of steps. This is a great springboard for further discussion on measuring and measurement.

Level 2 (Extension of Level 1) – Do the same activity but on a larger scale moving from the classroom to areas around the school.

Level 3 & 4 Start with the Level 2 activity.

Ask students to figure out how many steps there are in a metre and convert this number to a kilometre.

Get students to go on to Google maps and click on the *Get Directions* icon. Ask them to put in their home address in *Box A* and the school address in *Box B*. They will then need to click on the blue *Get Directions* box and the suggested routes will come up. They need to choose a route and it will show them the distance. Record the number and use it to convert into steps.

Note: Students who live far away may want to choose a landmark that is closer like a local dairy or church.

Extension: They say it's healthy to do 10,000 steps a day. How many times would a student need to walk between school and home to achieve this?

AO: Statistical investigation (Level 1)-

- Conduct investigations using the statistical enquiry cycle:
 - posing and answering questions
 - gathering, sorting and counting, and displaying category data;
 - discussing the results

WALT: (Level 1)

- Sort objects into categories for display
- Make a display of the data collected (pictograph)
- Make statements about data displays

How We Come To School:

Equipment:

You will need pictures of cars, buses, bikes, boys/girls, people walking, taxis, trains and ferries (if any student comes by these modes of transport). You will also need large pieces of paper and glue to stick the pictographs on.

- Get students to first brainstorm all the ways they could come to school.
- Then at the beginning of the week start by talking about how each child got to school. Then ask the children to select the picture that matches how they came to school.
- Children are then to group all the items that are the same together.
- Make a class pictograph.
- Ask children to make statements about what they can see and write these down around the graph (encourage them to talk about most and least, and the number in each category).

How We Would Like to Come to School:

- Remind students of all the ways they came up with to come to school the day before.
- Say *Today we are going to make a graph of how we would like to come to school.*
- Get students to choose how they would like to come to school. Once everyone has chosen, count the total number for each. Teacher to record on board.
- Get students into groups of 3-5 and ask them to collect the right number of pictures of cars/buses/bikes etc. The students will then be asked to make their own pictograph using the one made previously as a reference of how it should look. Teacher to support groups.
- Once students have finished making their pictographs, the teacher is to record their statements about their graphs.

AO: Statistical investigation (Level 1)

- Conduct investigations using the statistical enquiry cycle:
 - posing and answering questions;
 - gathering, sorting and counting, and displaying category data;
 - discussing the results.

WALT: (Level 1)

- Make a statement about a data display
- Decide if a statement about a data display is true or false
- Match a statement to the appropriate graph

Transport

Use the graph provided and make statements about forms of transport (which vehicle can take the most passengers, least etc).

AO: Statistical investigation (Level 2)

- Conduct investigations using the statistical enquiry cycle:
 - posing and answering questions;
 - gathering, sorting, and displaying category data

WALT: (Level 2)

- Write questions for investigation
- Collect information
- Sort information into categories
- Display information to answer questions or find out things
- Answer questions by sorting, organising and arranging information
- Make sensible statements about the information and be able to back up their statements with appropriate displays

Cars Outside the School Gate

(This could be done over 2-5 lessons)

- The teacher will need to explain how a tally chart works.
- Ask some questions like: What is your favourite food, drink, colour, sport, TV programme etc...
- Ask the children to vote and record their vote next to their choice. Show the children how tally marks work and ask them to convert the numbers into tally marks.
- Now ask the students to go around the room and ask each other 'What colour cars do you like best?' Ask them to give their classmates 5 options to choose from and record the answers as tally marks.
- The next day, remind students how tally marks work and go out to the road. Make sure students stay on the footpath and keep away from driveways. Some students will record the number of vehicles going by for half an hour in the morning and half an hour in the afternoon, the other students will record how many occupants are in each vehicle (some students may need to work in pairs).
- The results will be made into a bar chart. Demonstrate how to draw a bar graph using the data collected. Teachers need to ensure that they highlight important features such as; title, X and Y axes, scale and labels on the axes, and accurately plotted bars. Students could draw their own versions as a practice exercise.

AO: Statistical investigation (Level 2)

- Conduct investigations using the statistical enquiry cycle:
 - posing and answering questions;
 - gathering, sorting, and displaying category and whole-number data;
 - communicating findings based on the data.

WALT: (Level 2)

- Sort information into categories
- Display information to answer questions or find out things
- Answer questions by sorting, organising and arranging information
- Make sensible statements about the information and be able to back up their statements with appropriate displays.

- The results will then be discussed. How many less cars would there be on the road if there were 2 people per car, 3 people, 4? Do the students think that some people are going to the same place? Is there any way they could car pool to school to make less traffic on the road.

Extension: Students could then go out at a different time or on a different day to see if the results vary. Do they vary? Why/ Why not?

How Many People Have Wheels?

Get students to ask their classmates if they own a scooter or bike and record as a tally chart:

	Scooter	Bike	None
Number of people			

They can put a tally mark in scooter and bike if they have both. They can then repeat the chart with who came to school using a scooter, bike, walking or other.

	Scooter	Bike	Walk	Other
Number of people				

Students can then see if everyone who actually owns a scooter is using it to come to school. If they are not, why not? (Too far away, not safe, not allowed).

Students are then to brainstorm to see if the next week they can improve the number of students actively coming to school (walk, bike, scooter). Those students who can't actively come should be encouraged to park further away and walk, or carpool.

The following week the same chart will be repeated on an agreed day:

	Scooter	Bike	Walk	Other
Number of people				

The two pieces of information will be made into a bar chart comparing the results. Teacher to demonstrate. It could be fun to make it in Excel (or another office suite).

Did the students manage to make any changes? If so, are these changes sustainable? The students are to record their ideas.

WALT (Level 2):

- Write questions for investigation
- Collect information
- Sort information into categories
- Display information to answer questions or find out things
- Answer questions by sorting, organising and arranging information
- Make sensible statements about the information and be able to back up their statements with appropriate displays.

Data Squares (from [nzmaths.co.nz](http://www.nzmaths.co.nz))

http://www.nzmaths.co.nz/resource/data-squares-level-3?parent_node=

Do Data Squares lesson from nzmaths. Do Session One, Two and Three.

For Session Four change it to the following to incorporate a Travelwise theme:

Session Four

Students are to work in pairs to design and compile their own data square set. Each pair of students needs to design three questions to ask 24 other students in the class. The first question will be "Are you a boy or a girl?" with three new questions added.

Discuss and brainstorm suitable Travelwise questions.

Sample questions:

- How many kilometres is your house from the school?
- How many centimetres taller are you than someone who needs a booster seat? (If shorter record as negative. You need to be 148cm before you no longer need a booster seat).

Specific instructions will be needed with questions like this, so it's clear where to start and finish measuring.

- How fast can you run 100m?
- What is your favourite . . . ?

A list of possible favourites to select from is best with questions like this.

- What time do you leave your house to get to school?

When organising the data from questions like this, categories may be needed, e.g. before 8 pm, 8 to 9 pm, 9 to 10 pm, and later than 10 pm.

Before starting to collect data each pair of students needs to write three statements about what they expect to find out about the class.

Each pair of students needs to collect information and make 24 data squares from students in the class.

At this point, teachers may wish to discuss the likely difference in results between randomly selecting 24 students from the

AO: Statistical investigation (Level 2)

- Conduct investigations using the statistical enquiry cycle:
 - posing and answering questions;
 - gathering, sorting, and displaying category and whole-number data;
 - communicating findings based on the data

class and hand picking 24 friends. A quick example is a good way to illustrate this point at this level of the curriculum. The point to get across is that hand picking students to answer a question can give a misleading impression of the class, if it is assumed that it is representative of the whole class. For example, the teacher selects five rugby-loving boys in the class and asks them to name their favourite sport. All the boys are likely to say rugby, with the resulting statement make, "Everyone answered rugby, so the favourite sport in the class is rugby" or "Everyone in this class loves rugby".

Once the data squares are completed, students are to sort and arrange them to look for things of interest. Each pair of students can prepare a brief report of the things they have discovered.

Session 5: remains the same

http://www.nzmaths.co.nz/resource/data-squares-level-3?parent_node=

WALT (Level 3):

- Collect information
- Sort information into categories
- Answer questions by sorting, organising and arranging information
- Make sensible statements about the information with supporting evidence

Data Squares (from nzmaths.co.nz)

http://www.nzmaths.co.nz/resource/data-squares-level-3?parent_node=

Do Data Squares lesson from nzmaths. Do Session One, Two and Three.

For Session Four change it to the following to incorporate a Travelwise theme:

Session Four

Students are to work in pairs to design and compile their own data square set. Each pair of students needs to design three questions to ask 24 other students in the class. The first question will be "Are you a boy or a girl?" with three new questions added.

Discuss and brainstorm suitable Travelwise questions

Sample questions:

AO: Statistical investigation (Level 3)

- Conduct investigations using the statistical enquiry cycle:
 - gathering, sorting, and displaying multivariate category and whole number data and simple time-series data to answer questions;
 - identifying patterns and trends in context, within and between data sets;
 - communicating findings, using data displays.

- How many kilometres is your house from the school?
- How many centimetres taller are you than someone who needs a booster seat? (If shorter record as negative). (Need to be 148cm before you no longer need a booster seat.)

Specific instructions will be needed with questions like this, so it's clear where to start and finish measuring.

- How fast can you run 100m?
- What is your favourite . . . ?

A list of possible favourites to select from is best with questions like this.

- What time do you leave your house to get to school?
When organising the data from questions like this, categories may be needed, e.g. before 8 pm, 8 to 9 pm, 9 to 10 pm, and later than 10 pm.

Before starting to collect data each pair of students needs to write three statements about what they expect to find out about the class.

Each pair of students needs to collect information and make 24 data squares from students in the class.

At this point, teachers may wish to discuss the likely difference in results between randomly selecting 24 students from the class and hand picking 24 friends. A quick example is a good way to illustrate this point at this level of the curriculum. The point to get across is that hand picking students to answer a question can give a misleading impression of the class; if it is assumed that it is representative of the whole class. For example, the teacher selects five rugby-loving boys in the class and asks them to name their favourite sport. All the boys are likely to say rugby, with the resulting statement make, "Everyone answered rugby, so the favourite sport in the class is rugby" or "Everyone in this class loves rugby".

Once the data squares are completed, students are to sort and arrange them to look for things of interest. Each pair of students can prepare a brief report of the things they have discovered.

Session 5: remains the same

http://www.nzmaths.co.nz/resource/data-squares-level-3?parent_node=

WALT (Level 3):

- display data in bar graphs, stem and leaf graphs
- discuss features of data display using middle, spread, and outliers

Child Restraints (adapted from nzmaths)

Choose a Yr 1-2 class to work with.

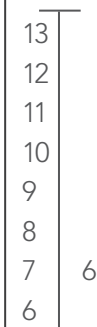
Session 1

Students will learn how to measure each other using metre rulers. They will convert between metres (e.g. 1.4m = centimetre 140cm). Teachers may need to help them to problem solve how to measure accurately over 1m.

Session 2

Once students can efficiently and accurately measure, they will visit a class that are Year 1 and/or 2. They will each measure a student from that class and record their heights as cm and metres.

Session 3



Have a student tell you their buddy's height in cm. Place it on the graph without explaining how you positioned it. Ask another student to tell you the height of their buddy and put it on the graph. Again don't give an explanation.

Then ask the students:

Can anyone explain why I've put those numbers at that place on the graph?

Discuss the 'tens' digit as the stem and the 'ones' digit as the leaves.

Now get the students to add their buddy's heights on the graph. If the students have not put the ones digits in order then this needs to be discussed and then changed.

AO: Statistical investigation (Level 3)

- Conduct investigations using the statistical enquiry cycle:
 - gathering, sorting, and displaying multivariate category and whole number data and simple time-series data to answer questions;
 - identifying patterns and trends in context, within and between data sets;
 - communicating findings, using data displays

AO: Statistical investigation (Level 4)

- Plan and conduct investigations using the statistical enquiry cycle:
 - determining appropriate variables and data collection methods;
 - gathering, sorting, and displaying multivariate category, measurement, and time-series data to detect patterns, variations, relationships, and trends;
 - comparing distributions visually;
 - communicating findings, using appropriate displays.

WALT (Level 4):

- Plan an investigation;
- Use spread sheets to display and analyse data
- Discuss features of data display
- Compare features of data distributions

Look at the stem-and-leaf graph and discuss.

- Which is the most common height?
- Could you tell without counting the number of digits on each leaf? (This is where the similarities between stem-and-leaf and bar charts can be made.)
- Which height is near the middle? (Stem-and-leaf graphs are great for answering this question as you can count in from either "end" of the data).
- Which heights are grouped together in clusters?
- What is the spread of heights? Is there a big gap between the shortest and tallest student?
- Which heights are lying outside the cluster?

Then ask the students – How many Y1 and/or 2s should be in a child restraint/booster seat? (Have to be 148cm or taller before they do not need one).

Go back to the buddy class and find out how many students are properly restrained in the class. This could be followed up with some pamphlets going home about child restraints if necessary.

Got to the following website to find the maths lesson:

<http://www.nzmaths.co.nz/resource/travel-school-i>

Assessment: below are examples of assessment rubrics.

English Recounts	Working towards Level 1	Level 1	Level 2	Level 3	Level 4
Purposes and audiences	I don't know what a recount is.	I can write about my experiences during Travelwise Week.	I can write about my experiences and share them with classmates.	I can use a new medium to recount my experiences and share it with my peers at school.	I can use a range of mediums to recount my experiences and upload it to a social media site for the wider public to view.
Ideas	I can't tell you what happened.	I can say who, what and where something happened.	I can give details about who, when, where, what, why and how.	I can organise my writing to show where, when, how and why events unfolded.	I can include significant events to add interest, impact and engage the audience and help them visualise the experience.
Language Features	I can't write a simple sentence about my experience.	I can use simple past tense - I went, I saw, I did. I can use alternative linking words – to, and, then. I can use capital letters and full stops with support.	I can use simple past tense correctly. I can use a range of punctuation independently and with support. I can use some action and linking words.	I can maintain consistent tense. I can use a variety of action verbs and linking words (e.g. I glimpsed, I travelled). I can use both first and third person.	I can maintain consistent tense. I can use a variety of action verbs and linking words. I can manipulate first and third person for effect.
Structure	I can't put events or experiences in order.	I can put some events in order.	I can write an introduction (orientation), body and conclusion/summary I can accurately describe events and sequence them in order of time.	I can write an introduction (orientation), body and conclusion/summary. I can add factual content. I can elaborate on events.	I can format my work to include an introduction (orientation), conclusion/summary/ reflection in a range of mediums.

Social Sciences	Working towards Level 1	Level 1	Level 2	Level 3	Level 4
	I cannot identify someone who drives	I can identify three different kinds of people who drive.	I can identify three different transport issues and provide potential solutions for these. I can compare and contrast two different kinds of transport and explain the advantages/disadvantages of each.	I can identify three different types of transport and assess how they impact on the environment I can discuss these modes of transport from different points of view.	I can create a transport plan to meet the needs of our class, school and/or community.
Health & PE	Working towards Level 1	Level 1	Level 2	Level 3	Level 4
Strand Regular Physical Activity	Does not participate in regular physical activity/ has a negative view of physical activity.	Participates in regular physical activity in a positive manner.	Participates in regular physical activity and can explain why it's good for them.	Participates in a range of regular physical activity and can explain why it's good for them.	Deliberately participates in a range of physical activity with forethought to how it impacts on their well-being.
Community Resources	Does not participate in events, nor see any benefit of doing so. Cannot identify a hazard and how to minimise risk around it.	Can identify a hazard and think of a way to stay safe around it.	Can name resources in the community that help people to stay healthy and describe how they do this.	Participates in events within the school and community and can explain how this links to the wellbeing.	Can name resources in the community that help people to stay healthy and describe how they do this in relation to the four elements of Hauora.
Rights, responsibilities, and laws/People and the Environment	Does not care about how their actions impact on the environment or others. Cannot describe how active/sustainable transport helps the community or environment.	Can describe how coming actively/sustainably to school is good for the environment and community.	Has changed their behaviour in some way so that they are coming to school more sustainably/actively AND/OR Has influenced someone else's behaviour, so that they are travelling somewhere more sustainably/actively.	Helped promote active/sustainable transport within the school or community.	Has been a role model for active/sustainable transport and has supported family members or younger students to be more active/sustainable. (e.g. walking a younger student to school, convincing parents to walk with them to the classroom etc.)

Mathematics & Statistics	Working towards Level 1	Level 1	Level 2	Level 3	Level 4
Measurement	I cannot group similar objects together.	I can make a pictograph (independently or with support). I can make statements about a pictograph.	I can make a pictograph and tally chart independently. I can make a bar graph (independently or with support).	I can read and create a stem and leaf graph. I can talk about the data (spread, mode, median etc.).	I can convert between centimetres and metres.
Statistical Investigation			I can make statements about a pictograph and bar graph.	I can create and interpret data squares.	I can use a spread sheet to make sense of data and create graphs. I can analyse and compare data and make statements about it.

Resources

Templates sourced from:

Global Education Website – <http://www.globaleducation.edu.au/resources-gallery/resource-gallery-templates.html>

Related links:

Ministry of Education – School Transport Fact Sheet (Fact sheet 7)

<http://www.minedu.govt.nz/~media/MinEdu/Files/EducationSectors/PrimarySecondary/SchoolOpsTransport/Factsheets/Factsheet7.pdf>

Ministry of Education – School Transport Fact Sheet (Fact sheet 8)

<http://www.minedu.govt.nz/~media/MinEdu/Files/EducationSectors/PrimarySecondary/SchoolOpsTransport/Factsheets/Factsheet8.pdf>

Ministry of Education – School Transport Fact Sheet (Fact sheet 9) <http://www.minedu.govt.nz/~media/MinEdu/Files/EducationSectors/PrimarySecondary/SchoolOpsTransport/Factsheets/Factsheet9.pdf>

Travelwise Raps

www.youtube.com/watch?v=gTXOz=AZ8_fl

www.youtube.com/watch?v=7qnRfEnRY_o

Mathematics

www.nzmaths.co.nz

Computer with a spread sheet program

Metre rulers

Transport Graph

Coloured pencils or crayons to draw with

Data squares