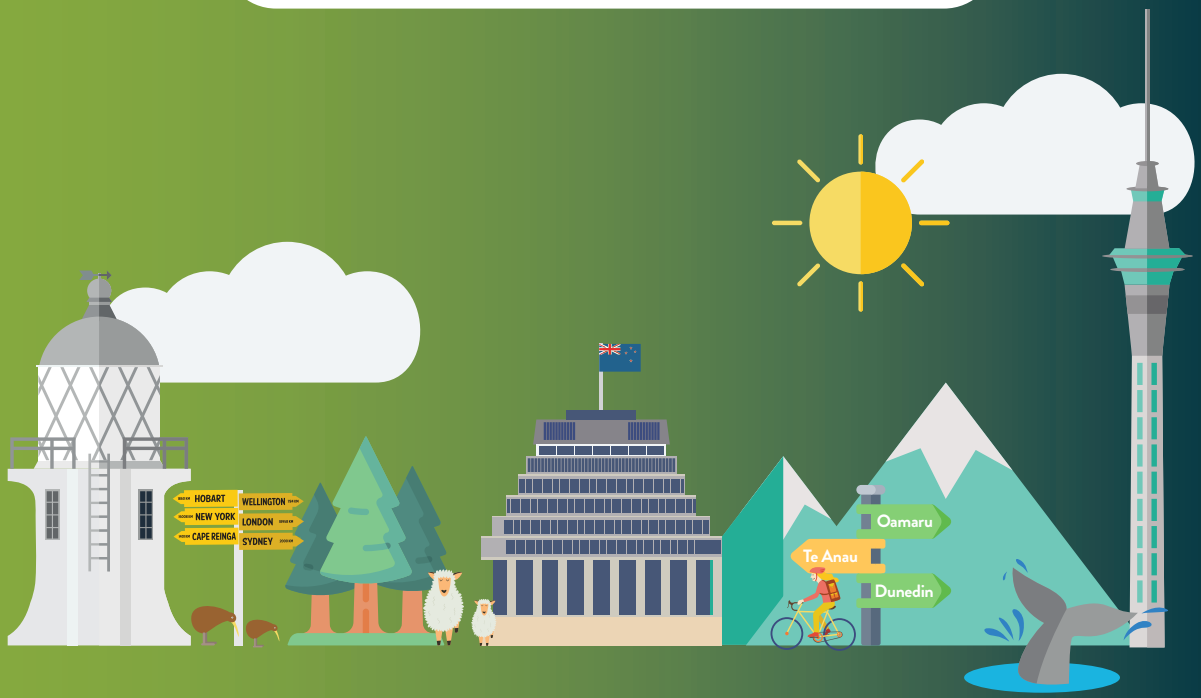
Ready Steady Go!

Travelwise

Student Workbook

Name .....

Class .....



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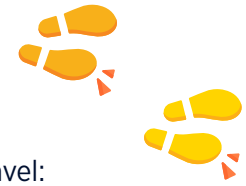
READY, STEADY, GO!

Activity 1.1 – What do you know about active travel?



Complete the following quiz:

1 Active travel is a journey that involves physical activity. List **three** types of active travel:

1. ..... 2. ..... 3. .....

2 Public transport counts as active travel because you have to walk, cycle or scooter to the pick-up and drop-off points. Name **three** types of public transport:

1. ..... 2. ..... 3. .....

3 **Fill in the missing word to complete these important safety rules or advice:**

- Always wait for the bus to **l**..... the bus stop before crossing the road. Stop, Look, Listen, be alert.
- Always wear your **h**..... when cycling or scootering and make sure it is correctly fitted.
- Stay alert when crossing railway tracks. Trains move very fast. You can't hear them until it's too late. Only cross at the barriers or level crossing when the lights and bells have **s**..... Look both ways, trains can come from **e**..... direction.
- Car parks can be busy and dangerous. Stop, Look and Listen for moving **c**..... and watch for reversing lights. **W**..... your bike or scooter in car parks.
- At the bus stop, stay as far back from the **r**..... as possible.
- Stay alert. Stop, **L**....., Listen before crossing a driveway. Watch for **r**..... lights.
- Stop, Look, Listen before crossing a road. At a pedestrian crossing, wait until cars come to a complete **s**..... and then make eye contact with the **d**..... so they know you are about to cross.

4 **Circle four of the statements below that describe how active travel benefits our mental health:**

A. 10 to 20 bikes can park in one car space

B. Being active can improve concentration and learning

C. Earth's temperature has risen 1°C over 200 years

D. You sleep better at night with regular exercise

E. Transport produces a quarter of global carbon dioxide (CO_2) emissions

F. Exercise is a stress buster!

G. Your knee is the largest and most complex body joint

H. Active people feel good and are happier

5 **Circle four of the statements below that describe how active travel benefits our physical health:**

A. Being active makes your heart healthier

B. Your heart is the size of your clenched fist

C. Muscles grow stronger with exercise

D. We each have more than 600 muscles in our body

E. A third of all car trips in NZ are less than 2km

F. Physical activity builds healthy bones

G. Most cars burn fossil fuels which are all non-renewable

H. Regular exercise helps your joints stay healthy

6 **Circle four of the statements below that describe how active travel benefits our environment:**

A. Exercise is a stress buster!

B. Active travel uses less fossil fuel

C. People who are fit have stronger immunity

D. Active travel reduces road congestion

E. The heart beats about 100,000 times per day

F. Walking, cycling and scootering don't use any fossil fuels

G. Petrol and diesel cars contribute to global warming

H. Active travel produces less air pollution



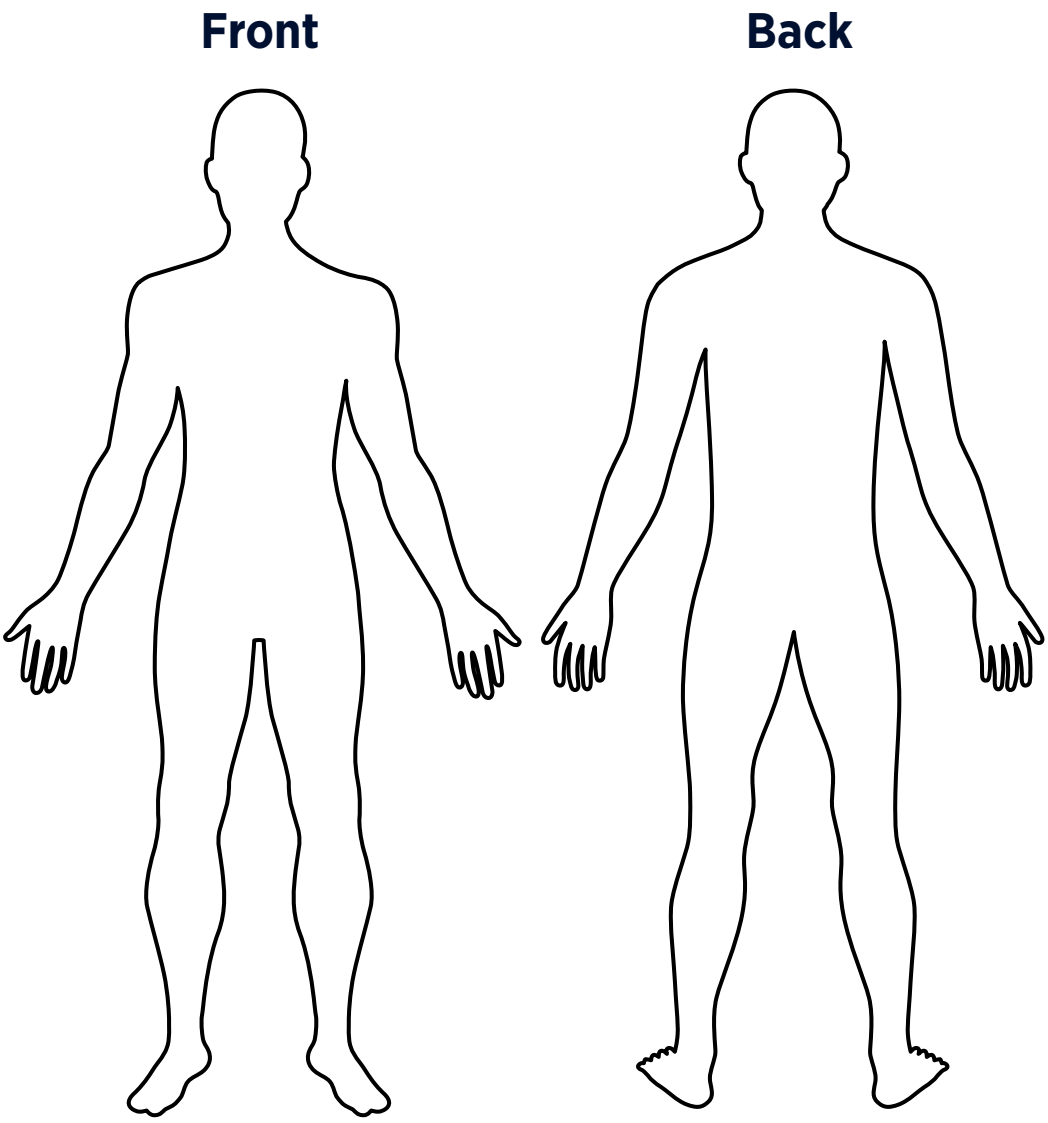

7 When we exercise, we can feel our pulse getting stronger and faster. It tells us how fast our heart is pumping. This is called our heart rate. When we measure our heart rate, we measure the BPM.

What does BPM stand for? .....

8 Our heart pumps blood around our body. What does the blood carry to the muscles to help them work well?

.....

9 The main muscles used when walking and cycling are our gluteals, hamstrings, quadriceps, and calf muscles. Label these muscles on this diagram.



10 What are fossil fuels? Circle the best answer:

A. Trees, firewood, paper

B. Ice, snow, rain

C. Oil, coal, natural gas

D. Rock, gravel, sand

11 What produces a quarter of global carbon dioxide (CO_2) emissions? Circle the best answer:

A. Forests

B. Transport

C. Rivers

D. Farming

12 Most cars currently use refined fossil fuels to power them, releasing carbon dioxide (CO_2) and other harmful gases into the air. What are the names of these refined fossil fuels? Circle the best answer:

A. Water and oxygen

B. Carbon dioxide

C. Petrol and diesel

D. Electricity

Activity 1.2 – Categorise the facts and benefits of active travel

Read the statements below, then on the picture:

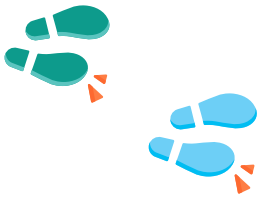
+ Highlight the health/wellbeing facts and benefits of active travel in yellow;
+ Highlight the environmental facts and benefits of active travel in green.

Health/wellbeing facts and benefits of active travel	Environmental facts and benefits of active travel
1. The heart is the hardest working muscle in your body.	1. One bus only takes up the same space of three cars on the road.
2. Your heart beats about 100,000 times per day.	2. 10 to 20 bikes can park in one car space.
3. Your heart is the size of your clenched fist.	3. About half a million Kiwi students drive or are driven to school each day.
4. We each have more than 600 muscles in our body.	4. Transport produces one quarter of global CO_2 emissions.
5. People who are fit have stronger immunity.	5. Car pollution contributes to global warming, which is the gradual increase of Earth's temperature.
6. Aerobic activity helps boost memory.	6. Most cars burn fossil fuels.
7. You sleep better at night with regular exercise.	7. An estimated 7 million people die worldwide from air pollution-related illnesses every year.
8. Exercise is a stress buster!	8. A third of all car trips in NZ are less than 2km – that's walking or cycling distance!
9. Muscles, bones, and joints grow stronger with exercise.	9. Active travel helps the environment.
10. Walking to school with a friend is fun – friendship is good for mental wellbeing.	10. Walking to school doesn't cost you or the environment a thing!
11. 20 minutes of exercise before school helps you concentrate and learn better... for the whole day!	11. Active travel helps the environment.
12. Physical activity produces feel-good chemicals called endorphins.	12. Fewer cars on the road means less traffic danger around schools.


THE HEART IS THE HARDEST WORKING MUSCLE IN YOUR BODY
GIVE WAY
Cool
Bam!
YOUR HEART BEATS 100,000 TIMES A DAY!
WALKING TO SCHOOL DOESN'T COST YOU OR THE ENVIRONMENT A THING!
KA PAI!
#FACTS
Car pollution contributes to global warming which is the gradual increase of Earth's temperature
Let's Go!
ONE BUS ONLY TAKES UP THE SPACE OF THREE CARS ON THE ROAD
WYA?
Ready Steady Go!
smh
READY TO RIDE!
Active travel is the best way to reduce road congestion
10 TO 20 BIKES CAN PARK IN ONE CAR SPACE!
STOP
Yeet
MUSCLES, BONES AND JOINTS GROW STRONGER WITH EXERCISE
MOST CARS BURN FOSSIL FUELS
CO2
Yo!
Transport produces one quarter of global carbon dioxide (CO2) emissions
Bruh!
APPROXIMATELY 7 MILLION PEOPLE WORLDWIDE DIE FROM AIR POLLUTION RELATED ILLNESSES every year
GET ACTIVE, GO GREEN, THINK SAFE
WALKING TO SCHOOL IS COOL
KA MAU TE WEHI! means awesome!
ACTIVE PEOPLE ARE HAPPIER PEOPLE
ONLY
xo
ONE WAY
WOAH!
20 MINUTES EXERCISE BEFORE SCHOOL HELPS YOU CONCENTRATE AND LEARN BETTER FOR THE WHOLE DAY!
YOUR HEART IS THE SIZE OF YOUR CLENCHED FIST
WALKING TO SCHOOL WITH A FRIEND IS FUN & FRIENDSHIP IS GOOD FOR MENTAL WELLBEING
BFF
PEOPLE WHO ARE FIT HAVE STRONGER IMMUNITY
SKR
ABOUT HALF A MILLION KIWI STUDENTS DRIVE OR ARE DRIVEN TO SCHOOL EACH DAY
We each have more than 600 muscles in our body!
SQUAD
A THIRD OF ALL CAR TRIPS IN NZ ARE LESS THAN 2KM! THAT'S WALKING OR CYCLING DISTANCE!
yeah
WALK ANY WAY
NOT GOING FAR? LEAVE THE CAR!
RIDE ON!
CLEAR THE AIR!
EXERCISE IS A STRESS BUSTER!
Ruuun!
FEWER CARS ON THE ROAD MEANS LESS TRAFFIC DANGER AROUND SCHOOLS
Exercise produces "feel good" chemicals called endorphins
Aerobic activity helps boost memory
YOU SLEEP BETTER AT NIGHT WITH REGULAR EXERCISE
ACTIVE TRAVEL HELPS THE ENVIRONMENT
KIA KAHA
Travelwise

Activity 2.1 – My travel goal and travel log

1 How far is it from your home to school? (You can use Google Maps www.google.com/maps or another method.)



The distance from my home to school is ..... km.

2 How many times do you aim to walk/cycle/scooter to and from school each week?

I aim to walk/cycle/scooter **TO** school ..... trips per week	I aim to walk/cycle/scooter **FROM** school ..... trips per week	Total number of trips per week .....

3 How far are you travelling each week?

The distance from my home to school is ..... km	Total number of trips to and from school per week is ..... trips	Total distance per week ..... km

4 How far are you travelling this term?

TOTAL distance per week ..... km	x	..... weeks*	=	**TOTAL** distance for the term ..... km

* This is the number of weeks left this term.

5 Goal setting

Each week I aim to walk/cycle/scooter a total of ..... km

This term I aim to walk/cycle/scooter a total of ..... km

Parent or caregiver permission

Show your parents and caregivers your goals and discuss the class challenge.

Ask your parents and caregivers to sign off your goals so that you can take part in the challenge.

They will need to check and sign your travel log at the end of each week.

Parent or caregiver signature .....

6 Class goal setting

Each week our class aims to achieve a total of ..... km of active travel.

This term our class aims to achieve a total of ..... km of active travel.

By the end of the term our class aims to reach the destination of

..... on the poster map of Aotearoa NZ.

My travel log




		Monday	Tuesday	Wednesday	Thursday	Friday	Weekly TOTAL km	Parent or caregiver initials
WEEK 1	km to school							
	km from school							
	TOTAL km							
WEEK 2	km to school							
	km from school							
	TOTAL km							
WEEK 3	km to school							
	km from school							
	TOTAL km							
WEEK 4	km to school							
	km from school							
	TOTAL km							
WEEK 5	km to school							
	km from school							
	TOTAL km							
WEEK 6	km to school							
	km from school							
	TOTAL km							
WEEK 7	km to school							
	km from school							
	TOTAL km							
WEEK 8	km to school							
	km from school							
	TOTAL km							
WEEK 9	km to school							
	km from school							
	TOTAL km							

+ This term I walked/cycled/scootered ..... km
+ This term our class achieved ..... km of active travel
+ We reached .....

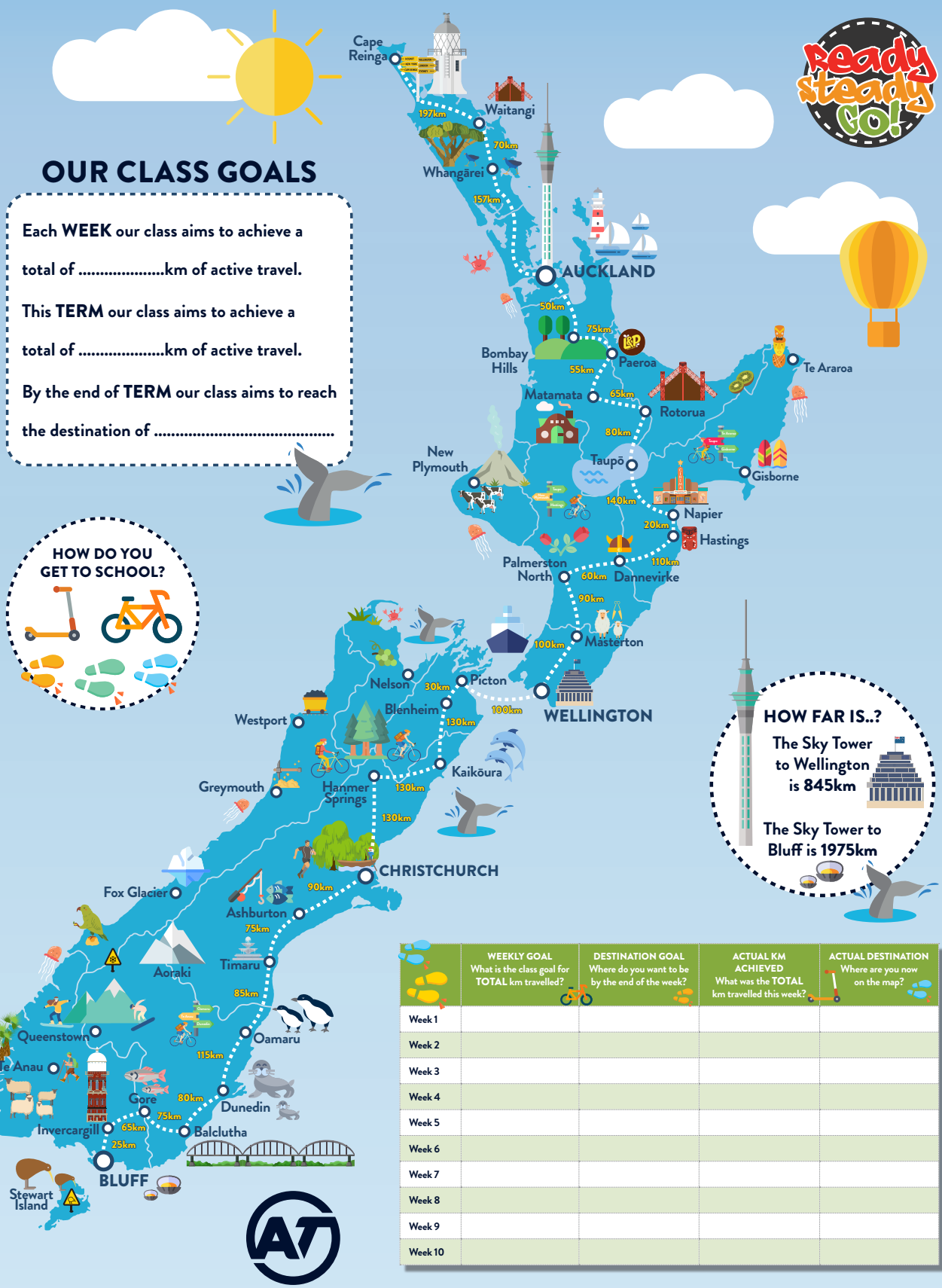
HOW FAR CAN YOU GO?

OUR CLASS GOALS

Each **WEEK** our class aims to achieve a total of .....km of active travel.

This **TERM** our class aims to achieve a total of .....km of active travel.

By the end of **TERM** our class aims to reach the destination of .....



HOW DO YOU GET TO SCHOOL?

HOW FAR IS..?

The Sky Tower to Wellington is 845km

The Sky Tower to Bluff is 1975km

	WEEKLY GOAL What is the class goal for TOTAL km travelled?	DESTINATION GOAL Where do you want to be by the end of the week?	ACTUAL KM ACHIEVED What was the TOTAL km travelled this week?	ACTUAL DESTINATION Where are you now on the map?
Week 1				
Week 2				
Week 3				
Week 4				
Week 5				
Week 6				
Week 7				
Week 8				
Week 9				
Week 10				

Activity Sheet

Activity 3.1 – Identify the risks

Travelwise

Activity 3.2 – Managing risks to stay safe

1 The safety messages for these risky behaviours have been mixed up. Find the correct safety message for each one from the right-hand column. The first one has been done for you.

Risky behaviour (red flag)	Safety message (blue flag)
A cyclist is riding their bike without a helmet.	Always wait for the bus to leave before crossing the road. Stop, Look, Listen and stay alert.
A boy is distracted with his football whilst crossing a sneaky driveway.	Stop, Look, Listen before crossing a road. At a pedestrian crossing wait until cars come to a complete stop and then make eye contact with the driver so they know you are about to cross.
A cyclist is passing on the left side of a truck, where the driver can't see them.	Always get into a car or vehicle from the footpath side.
A student walks out in front of the bus to cross the road.	Stay alert when crossing railway tracks. Trains move very fast. You can't hear them until it's too late. Only cross at the barriers or level crossing when the lights and bells have stopped. Look both ways; trains can come from either direction.
A boy is scootering across a school car park.	Be bright and be seen. Wear bright coloured clothes or a high-vis vest when cycling so that drivers can see you.
A student is getting into a car from the road side of the car.	Only cross when you see that the green man is lit and always check that the traffic has stopped before you cross.
A girl runs onto a pedestrian crossing without waiting for cars to stop.	Always have a good line of sight when crossing the road and don't cross near corners. Most pedestrian injuries happen when people cross the road.
A boy is crossing train tracks with earphones on and looking at his phone.	At the bus stop, wait as far back from the road as possible and stay alert.
Students in a crowded group at a bus stop, overhanging the road.	Always wear a helmet when cycling or scootering and make sure it is correctly fitted.
A cyclist is riding his bike on a road in dark clothing.	Never cycle on the left side of a large vehicle like a truck or bus. This is the driver's blind spot and they can't see you.
A girl is crossing the road near a corner to join her mother who is waving to her.	Walk your bike or scooter in car parks. Car parks can be busy and dangerous. Stop, Look, Listen for moving cars and watch for reversing lights.
Students walking on a signalised crossing when the red man is lit.	Stop, Look, Listen before crossing a driveway. Stay alert.

2 Answer the following questions:



1. When walking your bike or scooter through a car park, what do you need to look out for?

   .....

2. When you cross a road at a signalised crossing, you must only ever cross when you see that the **g** ..... man is lit.

3. When crossing a railway track you must stay alert. Only cross at the barrier or level crossing when the lights and bells have **s**..... Look both **w**..... ; trains can come from either direction.

4. What should you do before you cross the road at a pedestrian crossing?

   .....

5. What correctly fitted item should you always wear to protect your brain when you are scootering or cycling?

   .....

6. When you get off a bus, what should you always do before crossing the road?

   .....

   .....



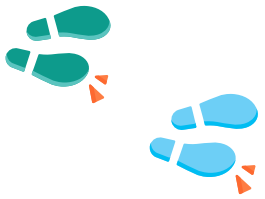

3 **Think about your own journey to and from school. What are the hazards and potential risks you face?**

Are there sneaky driveways on your journey? Do you cross any roads? What other risks do you have to manage to get to and from school safely?

In the boxes below, write any hazards and potential risks and the safety messages you need to follow to stay safe.

What hazards and potential risks are there on my journey to and from school?	How can I stay safe?

Notes



Activity 4.1 – Your heart

1 **Read the following:**

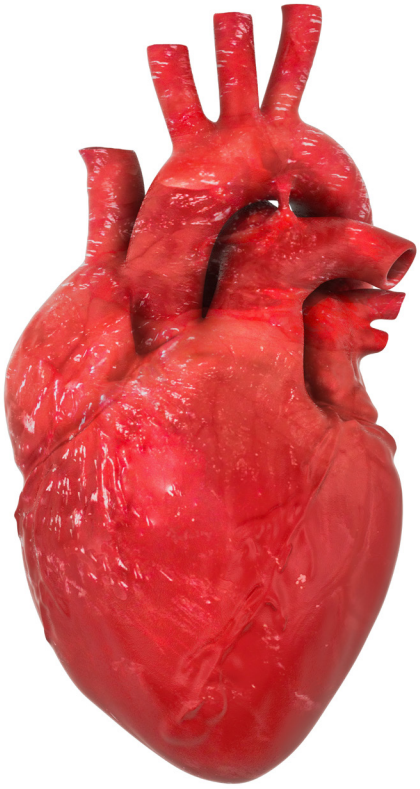
Your heart plays an important part in being healthy. Your heart is a muscle and like other muscles in the body, if you want it to be strong, you need to exercise it. When you exercise, you use many muscles which all need oxygen to work well.

When you breathe in oxygen, it is your blood that carries the oxygen around your body. Your heart has the job of pumping this oxygenated blood around your body and then bringing it back to the lungs to become oxygenated again.

Your heart is in the centre of your chest, slightly to the left, and it is about the same size as your clenched fist. The heart beats about 100,000 times a day and about three billion times during an average lifetime.

Taking your pulse is a way of measuring how fast your heart is beating and pumping – this is called your heart rate and it is measured in beats per minute (BPM). You can feel your pulse on your wrist or on your neck where your blood vessels are close to the skin.

When you exercise, your heart rate increases, and you can feel your pulse getting faster and stronger. Increasing your heart rate by exercising strengthens your heart muscle. The faster your heart rate returns to your normal resting heart rate after exercise, the fitter you are.



Did you know?

Taking your pulse is a way of measuring how fast your heart is beating.

2 **Learn to take your pulse. Your teacher will time you for six seconds as you measure your heart rate:**

1. At rest whilst sitting down - your resting heart rate **2.** After walking briskly for two minutes

3. After running for two minutes and **4.** After cooling down for two minutes.

Record and plot your heart rate as BPM (beats per minute) in the correct column on the heart rate tracker.

Heart rate tracker

	At rest	Walking briskly	Running	Cooling down
200				
190				
180				
170				
160				
150				
140				
130				
120				
110				
100				
90				
80				
70				
60				
50				
40				
30				
20				
10				
0				
My pulse Number of beats in 6 seconds	Box 1	Box 2	Box 3	Box 4
My BPM Number of beats in 6 seconds x10				

3 **Looking at your heart rate tracker, answer the following questions.**

1. What was your heart rate (BPM) at its highest? .....

2. What activity were you doing? .....

3. Why do you think it was at its highest then?.....

4. When was your heart rate at its lowest?.....

5. What was your heart rate (BPM) at this time?.....

6. Why do you think it was at its lowest then?.....

7. Don't forget that the heart is a muscle. If you want strong muscles, what do you need to do to make them stronger? .....

8. Did your heart rate return to your normal resting heart rate during the cooling down period?

.....

9. Complete this sentence: The **f**..... your heart rate returns to your normal **r**..... heart rate after exercise, the fitter you are.

Extra activity

Can you make a working model of a heart? Watch this video and give it a go!

Go to the **Ready Steady Go! homepage** for a video of how to make a working heart model.




Activity 4.2 – Your muscles

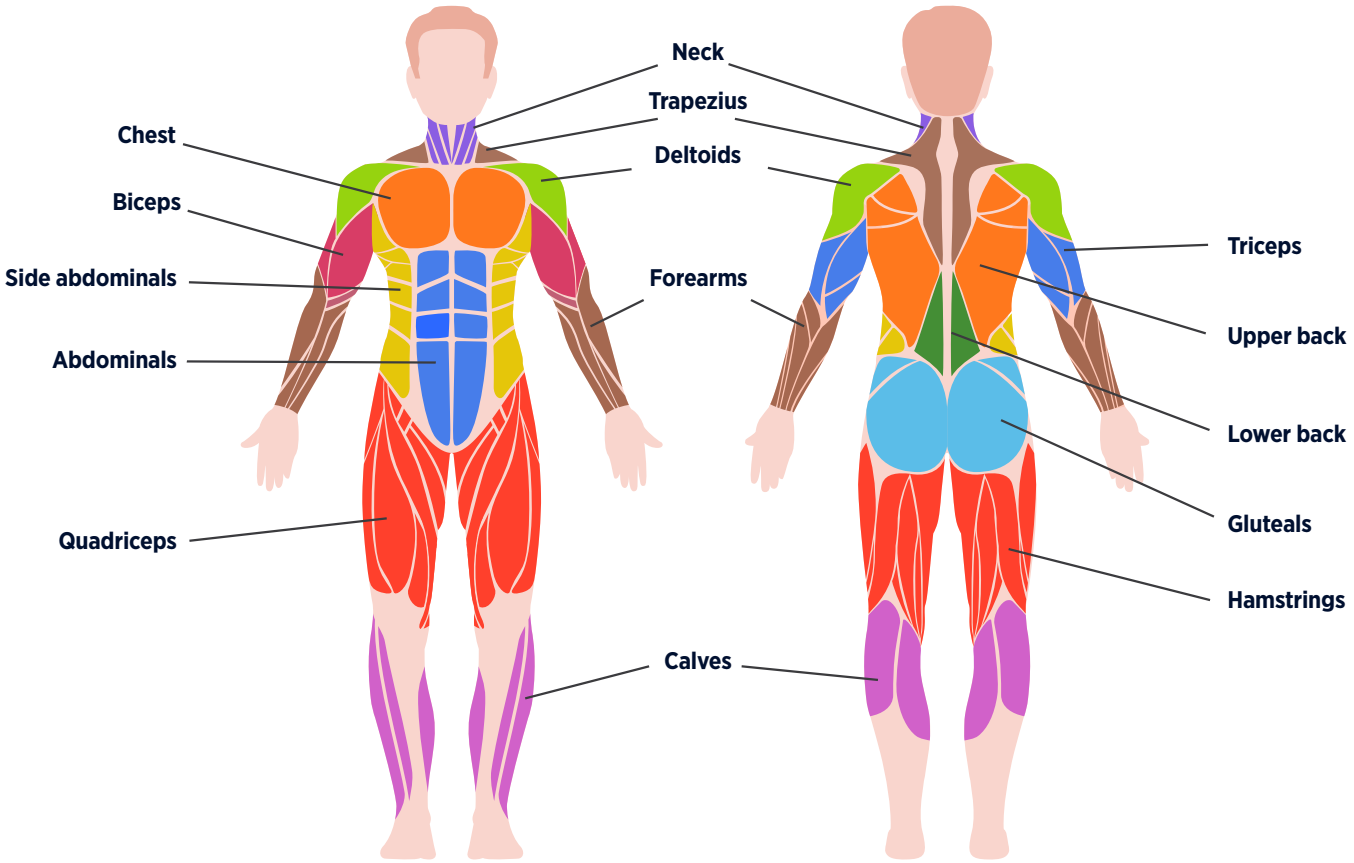
1 **Read the following:**

To be fit and healthy, you need to be physically active. When you use your muscles, they become stronger. Strong muscles are important because they help your body move better, they support your joints and help prevent injuries. Walking and cycling are healthy, low-impact (easy on your joints) exercises that can be enjoyed at any age. The main muscle groups that get a good workout when you walk, or cycle are the muscles in your legs and bottom. Your upper body also has to work without you even realising it. The abdominal muscles (that cover your stomach) act as 'stabilisers' for the body and work constantly while walking and cycling to keep your body balanced. The muscles in your arms are also working as you swing your arms or lean on your handlebars.

Did you know?

Sitting for too long each day increases your risk of health problems such as heart disease and diabetes. So, get moving! Get off the sofa and get out of the car. Walk or cycle to school if you can.

These are the main muscle groups of the human body:

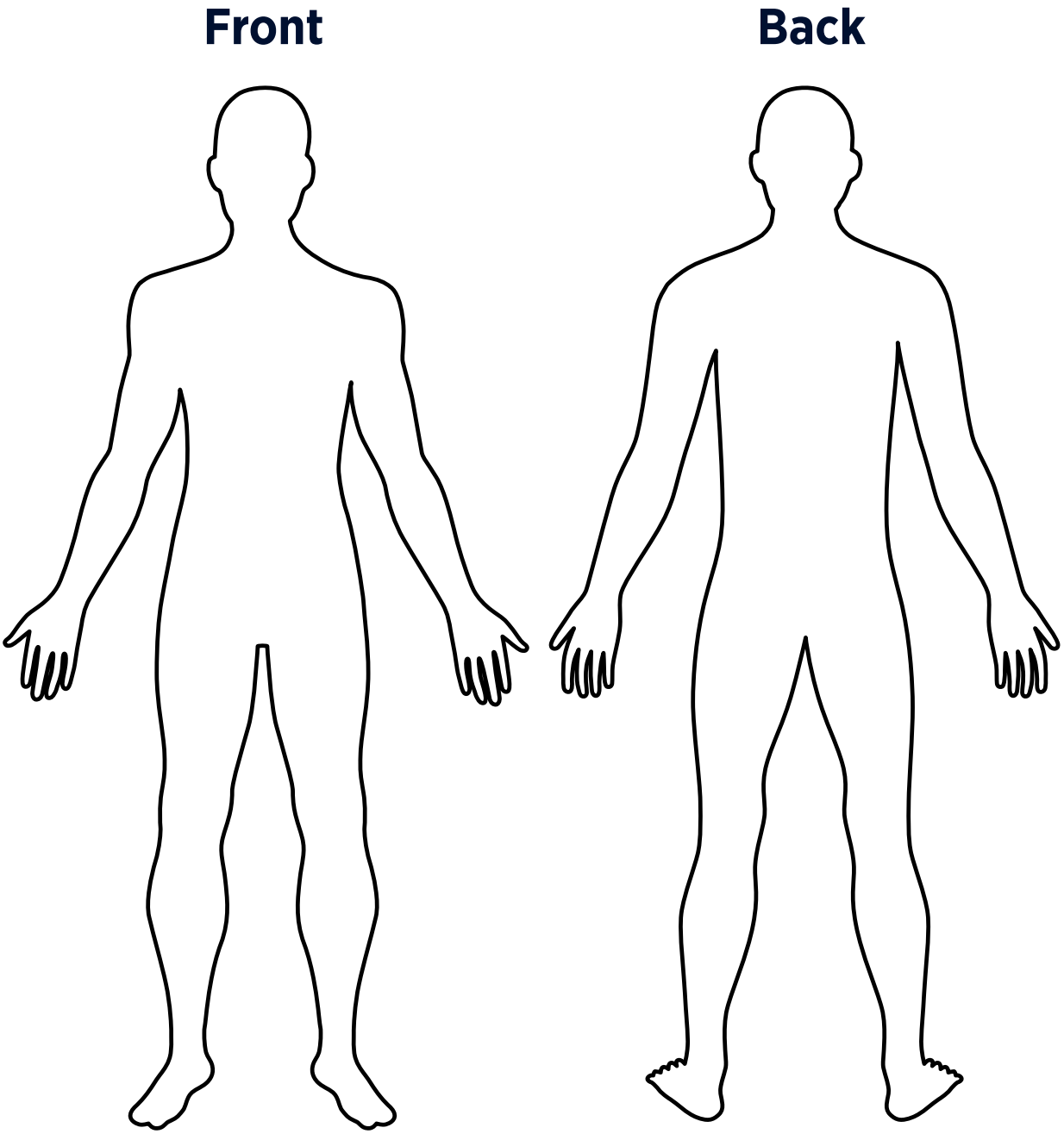


2 **On the diagram below, draw and colour in the four muscle groups that are used when walking and cycling.**

Choose a different colour for each muscle group, and then colour in the key so that it matches.

Key:

Gluteals	Hamstrings	Quadriceps	Calf muscles



Activity 5.1 – Exercise makes us happy

1 Read the following:

Our brain releases endorphins, sometimes known as 'feel-good' chemicals, during physical exercise which improve our energy levels, mood and help us to sleep better. When we feel energised, happy and have had plenty of sleep our self-confidence increases and our resilience improves when faced with challenges.

Super snoozing

Regular exercise is important for high-quality night-time **sleep**. Exercise also helps keep your **circadian rhythm** regular. This is our body clock - an internal process that recognises night and day and determines when you feel tired and awake. When your circadian rhythm is regular, you'll sleep soundly. Good sleep is extremely important for our mental **wellbeing**, making us feel more **confident**, positive, and **resilient**.

Awesome friendships

Exercise can help you develop friendships, which are crucial for mental wellbeing. Having good connections with people increases our sense of **belonging** and improves **self-confidence**. Physical exercise is far more fun with friends – whether it is sports, walking or cycling to school with your buddies or any active game outdoors. Belonging to a sports team is not only good for your physical health, but also your mental wellbeing. Teamwork helps us connect with each other and develop lasting friendships. Walking, **cycling** or **scootering** to school is a great **opportunity** to **connect** with **friends**. It's a fun way to start your school day and gets your brain ready for learning.

Brain boost for learning

Exercise boosts our **brainpower**. It helps build our intelligence and strengthens our memory. Scientists have proven that aerobic exercise (exercise that increases the **heart rate**) helps to create new **brain** cells and improves overall brain performance. They also found that exercise strengthens the brain's **hippocampus** which is responsible for **memory** and learning. Exercise also improves your motor skills such as hand-eye coordination, problem-solving skills, and concentration. Studies show that children who play active games outside with their friends perform better when they sit tests and school assignments.

Stress busting

Exercise can put the '***smile*** *on your dial*' and the '***pep*** *in your step*!' When your heart rate increases, it stimulates the production of feel-good chemicals called **endorphins**, which not only improve a bad **mood**, but also help you to think **clearly** to solve **problems** that you previously found challenging. This is why exercise is a great **stress** buster. It is healthy for both the mind and body to go for a run or a bike ride or play outdoors with friends.

2 Complete the summary by filling in the missing words:

The four main benefits of exercise for mental wellbeing include high-quality night-time **s**....., a boost in **b**..... which helps our learning, an opportunity to connect with people and make **f**..... and it is a great **s**..... buster.

Exercise helps our internal 'clock' stay regular ensuring that we sleep soundly at night and feel energised during the day. This process is called the **c**..... **r**..... Sleep is extremely important for our mental **w**..... because it makes us feel more **c**....., positive and more **r**.....

Making connections with people and having good friendships increases our sense of **b**..... and it improves our **s**.....- **c**..... Walking, **c**..... or **s**..... to school is a great **o**..... to **c**..... with friends.

Scientists have proven that (aerobic) exercise which increases the **h**..... **r**..... helps make new **b**..... cells and improves brain performance.

Exercise also helps strengthen the **h**..... which is the part of the brain that is responsible for **m**..... and learning.

Exercise stimulates the production of feel-good chemicals called **e**..... These chemicals improve our **m**..... and help us to think **c**..... to solve **p**.....

Exercise is good for our wellbeing and it helps put the **'s..... on your dial'** and the **'p..... in your step'.**

3 **Using a BLUE pen, circle the words that best describe your current feelings and emotions** BEFORE **you do some exercise and a RED pen to describe how you feel** AFTER **exercise.**

accepting
manawanui

active
mākā

amazed
whakamīharo atu ana

angry
pukuriri

awful
māuiui rawa atu

blissful
matakuikui

bold
māia

bored
hongehongeā

brave
mātātoa

calm
mauri tau

cautious
tūpato

cheerful
tūrangahakoa

chilly
makariri

comfortable
hāneanea

confident
ngākau titikaha

contented
māoriori

cool
makariri

delightful
āhumehume

depressed
pāpōuri

distracted
manawarau

distressed
raupeka

dreadful
whakarihariha

easy-going
ngāwari

energetic
hihiko

elated
ihiihi

excited
hiamo

focussed
arotahi ana

free
wātea

glad
kurekure

gloomy
matapōuri

glum
pourure

grumpy
pukukino

happy
hari

indifferent
hūkore

intelligent
ihumanea

interested
pīrangi ana ki te whai

irritated
hōhā

jolly
uruhau

joyful
manahau

lazy
māngere

lively
ngangahau

mad
riri

merry
harakoa

miserable
tūreikura

moody
haumaruru

nervous
āmaimai

optimistic
ngākau rorotu

pessimistic
hākerekere

proud
karatete

relaxed
parohe

sad
pōuri

shy
whakamā

sleepy
hiamoe

stressed
pōkaikaha

tearful
waiwai ana ngā kamo

terrible
wehi ana

tense
maniore

tired
ngenge

upbeat
whitawhita

warm
mahana

weak
hauaitu/ māioio

wonderful
tau kē

Did you feel differently after exercise? Explain your answer.

.....

.....

.....

Activity 5.2 – Design a badge or sticker

Design a badge or sticker with a catchy slogan. Think of a slogan that persuades people to exercise for mental wellbeing. Think about the benefits of exercise for mental wellbeing:

- Happier moods
- Stress buster
- Friendships
- Better learning
- Improved memory
- Better problem-solving skills
- High-quality sleep

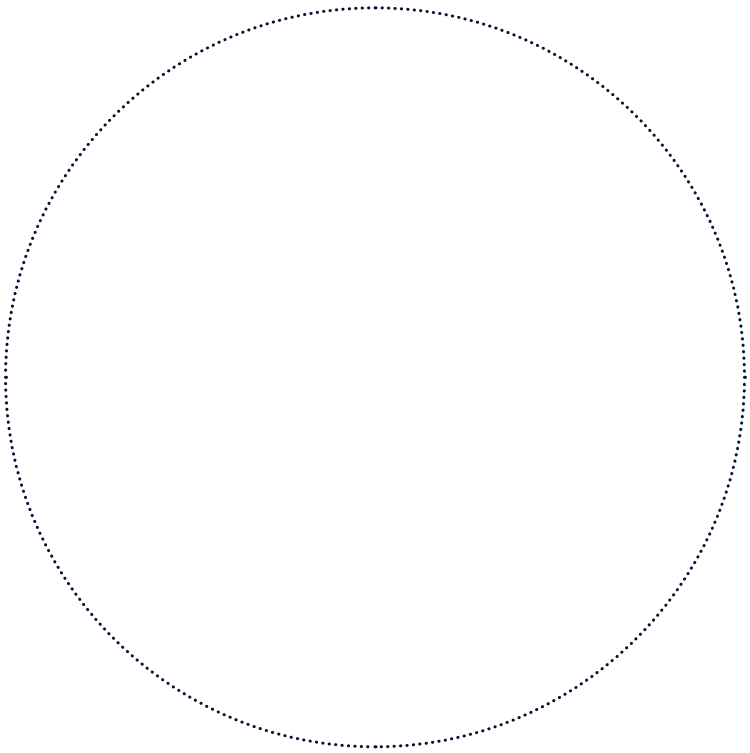
Example slogans:

Fitter, Healthier, Happier.

Don't just sit – it's time to get fit!

Get active, go green, think safe!

Use the template below to design your badge or sticker:



Extra activity

Create a crossword puzzle using the words you chose to complete the summary in **task 2**. Provide clues that are clear. Give it to a friend or take it home for your family to solve!

Tip: Use quad paper that you find in a maths exercise book.

Activity 6.1 – Transport and the environment

Read the information below and answer the questions.

What is air pollution?
Air pollution occurs when harmful gases, smoke, dust and odours get into the air, making it dirty and unhealthy to breathe.

1. Name four types of air pollution

1. ..... 2. .....

3. ..... 4. .....

Where does air pollution come from?
Some air pollution comes from natural sources such as volcanic eruptions, dust storms and wildfires. However, most of the world's air pollution is caused by human activities that involve burning fossil fuels such as coal, oil and natural gas. These are mainly used to fuel transport, factories and power stations (places where electricity is made). When we burn fossil fuels, carbon dioxide (CO_2) and other harmful gases are released into the air.

2. Name three natural sources of air pollution

1. ..... 2. ..... 3. .....

3. Coal, oil and natural gas are commonly called .....

4. What is released by burning fossil fuels? .....

Transport and air pollution

Transport (mainly road and air) produces a quarter of global carbon dioxide emissions and is the biggest single air polluter. Most forms of transport, including cars, burn petrol or diesel, made from fossil fuels, to power their engines and make them move. When burned in an engine, petrol and diesel create air pollution. A range of toxic carbons and other poisonous gases are released from the vehicle's exhaust pipe into the air around it. These exhaust emissions are harmful to humans and to the environment. In some cities around the world where there is a lot of traffic, the air pollution is so bad that it is difficult to see through it and it is even difficult to breathe!

5 What powers most car engines and is made from a fossil fuel?

.....

6 Cars that use petrol and diesel release toxic carbons and other harmful gases. Which part of the car releases these gases?

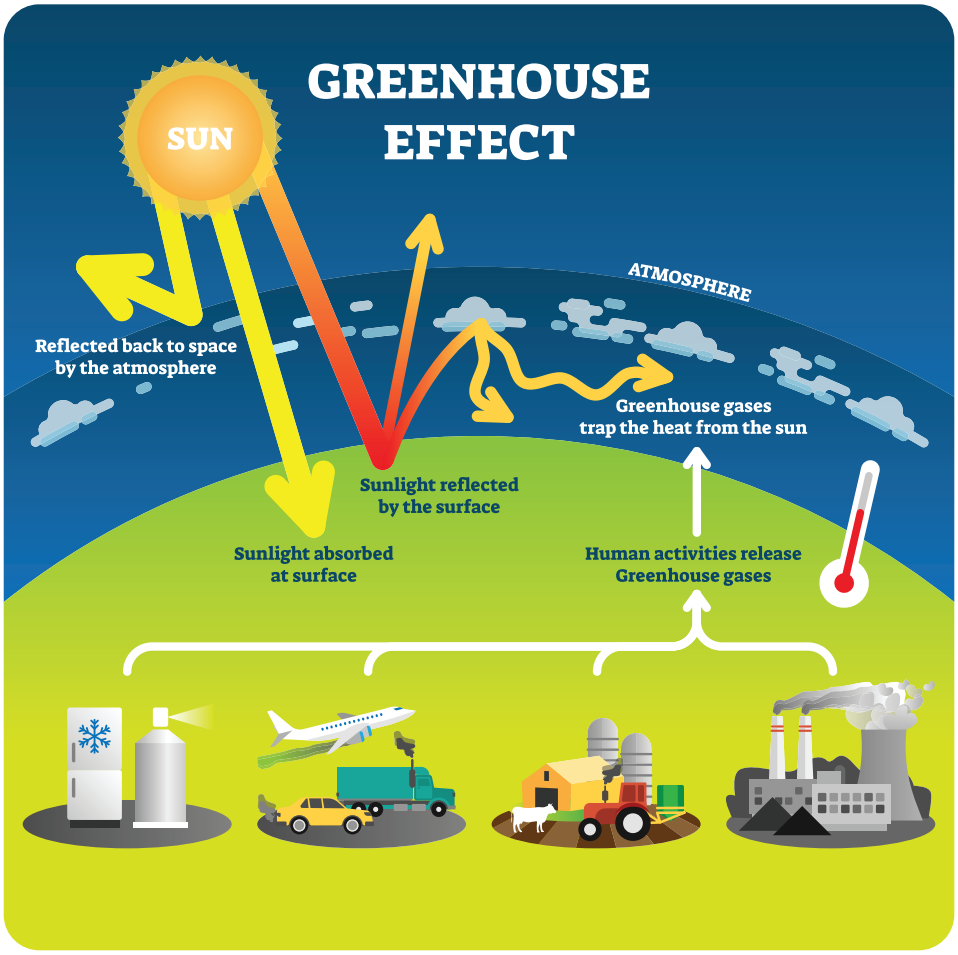
.....

How does pollution from transport affect global warming?

Some gases in the air make our planet warmer. This happens because of the greenhouse effect. A few types of gas, called greenhouse gases, cause this effect by trapping heat from the sun close to the Earth. Carbon dioxide (also known by its chemical symbol CO_2) is the most important greenhouse gas.

They are called greenhouse gases because like in an actual greenhouse, the glass lets in sunlight, warming up the inside. The glass then stops most of the heat escaping, keeping the inside warm so plants can grow better. The same thing happens to Earth where the greenhouse gases act like glass in a greenhouse. They trap the heat in the Earth's atmosphere so it can't escape, making it a planet where people, plants and animals can live comfortably. Without this effect, Earth would be covered in ice and be a chilly -18°C!

The problem is that burning too many fossil fuels is causing greenhouse gas levels to rise too quickly. Exhaust emissions from vehicles are releasing too much carbon dioxide and other greenhouse gases into the atmosphere, trapping the heat and causing a rise in global temperature. This global warming affects the environment in many ways. It causes extreme weather such as heat waves and tropical storms. It also creates rising sea levels by melting glaciers and polar ice. Some places around the world will get more rain and floods, while other places will have less rain and droughts. This will affect animal and plant life, farming and our food chain.



7 What acts like glass in a greenhouse and helps keep the planet warm?

.....

8 Burning fossil fuels is causing the amount of greenhouse gases to increase too rapidly causing a rise in global temperature.

This is called .....

9 Global warming is causing higher temperatures around the planet. List four other problems that result from global warming.

1. ..... 2. .....

3. ..... 4. .....

What can we do to reduce air pollution and slow down global warming?

We don't have any control over the pollution caused by natural sources, but we DO have control over the human activities that create most of the world's air pollution. There is a lot we can do.

We can talk to our friends and whānau about the problems caused by burning fossil fuels for transport and how the active travel choices we all make can help the planet. Walking, cycling, scootering, or choosing public transport such as buses, trains, trams and ferries, or carpooling when it is too far to walk or cycle, are the best choices to make.

Be kind to our planet and plant a tree! Did you know that trees absorb about 25% of the carbon dioxide produced in the world by the burning of fossil fuels?

Also, switching off lights and electrical appliances when not in use also uses less fossil fuels.

Little by little, step by step we will start to see the difference and Planet Earth will go on being a happy, healthy place to live in.

10 Trees are important for our environment because they absorb which greenhouse gas?

.....

11 List four things you could do to reduce air pollution and slow down global warming.

1. ..... 2. .....

3. ..... 4. .....

Activity 6.2 – Make a clean, green community

1. This is an illustration of a community with challenges. Look carefully at the scene below. Discuss with your classmates how this scene could be changed to become a thriving, healthy and happy environment to live in. What choices need to be made by the people living in this community, and what behaviours do they need to change?
2. Recreate this scene by creating a collage or a drawing which shows what this urban community could look like if the people in this community changed their behaviours and made good choices in terms of caring for the environment they live in. Think about transport choices, safe walking and cycling paths, public transport opportunities, management of litter and waste, factories, wildlife, and parks.

Activity 7.1 – Plan a change campaign

1 **Write the following words in the correct spaces to complete the definition of active travel below:**

BUS CYCLING TRAIN FERRY JOURNEY PUBLIC

Active travel is a **j**..... which involves physical activity, such as walking, **c**..... and scootering. It also includes using **p**..... transport as this usually involves physical activity to get to and from the **b**..... stop, **t**..... station or **f**..... terminal.

2 **Read the information below** – Sustainable transport ideas and tips. Then choose one idea and use it to plan a campaign that could be used to communicate this idea to your school and/or community.

Sustainable transport ideas and tips

Sustainable transport can save you money, improve your health and help the environment. Globally, transport produces about a quarter of carbon dioxide emissions and creates air pollution. The following ideas and tips can help reduce the environmental impact caused by transport:

+ Walk for short trips
+ Cycle or scooter instead of driving
+ Use public transport
+ Consider carpooling
+ Think ahead – bundle a number of small trips into one trip to save fuel

Plan a change campaign

3 **Fill in these boxes to create your campaign plan.**

What is your key message?

Who is your target audience? Students, drivers or both?

Create a slogan for your message e.g. *'It's cool to bike to school'* or *'Carpool to reduce fuel.'*

What method will you use to communicate your message? What format will you use? Will you create a video, perform a short skit, song/rap for assembly or write a persuasive advertisement for the school newsletter, website, or notice board? Will you use any visual symbols?

Plan a change campaign

Fill in these boxes to create your campaign plan.

How do you get your message heard by your community? What method or channel will you use? For example, you could invite people in your community to an assembly, put your advertisements in local newspapers, make placards and take your message to the streets of your local area.

What resources do you need to create your campaign? What equipment do you need? Who do you need to help you deliver this campaign? Maybe your principal or school community support officer?

How will you know if your campaign was successful? How will you know if your audience understood your message?

4 **Write your slogan from your campaign plan on a large piece of paper.**

Use bold and colourful lettering. Display your poster in a public area of your school.

Did you know?

In 2017 Auckland Transport held the Guinness World Record for the largest human image of a bike – 1,799 people. Students and teachers from Glen Eden Intermediate, Konini Primary, Oratia Primary and Kaurilands Primary schools joined together to make the bike. This is an example of a successful campaign that created publicity and got people talking!

Go to the **Ready Steady Go! homepage** for the video and news story of the event.

Extra activities

1. Using your plan to guide you, create the campaign and launch it at your school or in your community.
2. Research your carbon footprint.

What is a carbon footprint?

A carbon footprint is an estimate of the impact of your lifestyle on the environment. It is the total amount of greenhouse gases (mainly CO_2) released into the atmosphere during your daily activities, such as the transport you use, how you power your home, the food you eat, and what you buy. When you add up the emissions that all these activities produce you have an idea of the impact you have on the planet – small changes can have a big impact in reducing your carbon footprint.

Go to the **Ready Steady Go! homepage** for links to a carbon footprint calculator and the changes that you can make to reduce your carbon footprint.

Learn how to fit a bike helmet correctly (2-4-1 rule)

Did you know?

The law requires all cyclists to wear a bicycle helmet when riding a bicycle.

Two fingers above your eyebrows to the bottom of your helmet.

Adjust the straps so the sliding clips sit right underneath the ear lobe, and the straps form a 'Y' shape.

The chin strap should not be able to be pulled up and over your chin.

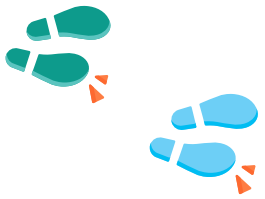
1. Unclip the buckle.
2. Ensure the helmet is the right way around.
3. Place the helmet on your head so that it sits flat with a two-finger width gap between the eyebrows and the helmet rim.
4. If the helmet has an adjustable cage at the back, tighten it so that the helmet is snug.
5. Adjust the side straps, checking that there is no fraying or twists. On each side there is a clip which should sit right beneath the earlobe, forming a 'Y' shape on each side.
6. Tighten up the chin strap and clip the buckle. You should be able to fit one finger between your chin and strap (2-4-1).

The ABCD Quick check

Check your bike every time you go for a ride, but especially if you haven't ridden it for a while.
It's simple – every time you ride you just have to remember your **ABCD Quick check**.

A. Air	Check that you have air in your tyres.
B. Brakes	Check each brake by wheeling the bike forward and squeezing the brakes one at a time.
C. Controls	Check the chain, pedals and handlebars. The chain should be black or silver, not rusty. The pedals should spin freely. The headset should be tight so that the handlebars do not move independently of the wheel.
D. Drop	Drop the bike gently from a height of about 10cm and listen for any unusual rattles or creaks.
Quick	Check that the quick release levers are all closed securely.

Notes



Activity 9.1 – Make a booklet and share your knowledge

1 **Make a booklet.**

Share your knowledge about the benefits of safe, active travel by creating a booklet that you will read to juniors.

- Read through the messages provided on road safety and the health/wellbeing and environmental benefits of active travel. Choose the number of messages and pages you would like to include in your booklet. You can have one or more messages per page; it is up to you!
- Go to the Ready, Steady, Go! homepage for a video of how to make three different booklets.
- Cut out each of the messages you choose and glue them onto the pages of your booklet.
- Illustrate each page. Remember to use lots of colour and detail. You will need to design a cover with a title and don't forget to write the author's name!

Road safety messages for active travel

Always wear your helmet when cycling or scootering and make sure it is correctly fitted.	**If there is one, always use the pedestrian crossing (zebra, kea or signalised) to get safely across the road.**	**When you are waiting at the bus stop, wait as far back from the road as possible and stay alert.**
Stop, Look, Listen before crossing a driveway. Stay alert. Look and listen for cars driving out of a driveway.	**Be bright, be seen, wear bright-coloured clothes or a high-vis (high visibility) vest when cycling or scootering so that traffic can see you.**	**Car parks can be busy and dangerous. Stop, Look, Listen for moving cars and look out for white reversing lights. Walk, don't ride, your bike or scooter in car parks.**

See the next page for the other statements.
Cut these out and use to make your booklet.

Environmental facts and benefits of active travel

About half a million Kiwi students drive or are driven to school each day. That's a lot of cars on the road!

Walking, cycling or scootering to school helps to make the roads safer and less busy.

Cars create air pollution which is not good for our health or the health of the planet.

Fewer cars on the road means less traffic danger around schools.

Choose to cycle short distances rather than take a car. Cycling doesn't create air pollution and you don't have to look for car parks. Did you know that 10 to 20 bikes can park in just one car space?

Walking to school doesn't cost you or the environment a thing!

Health/wellbeing facts and benefits of active travel

Did you know that the heart is the hardest working muscle in your body and is the size of your clenched fist?

Did you know that you have more than 600 muscles in your body?

Muscles, bones and joints grow stronger with exercise.

Walking to school with a friend is fun – friendship is good for keeping you healthy and happy.

Walking, cycling or scootering to school helps you concentrate and learn better... for the whole day!

You sleep better at night with regular exercise.

2 Read 10 tips for reading to young children below. Practice reading your booklet aloud to your classmates. You're now ready to read your booklet to junior students.

1. **Preview the book:** Read the book at least once beforehand to make sure that there are no surprises that might trip you up as you read.
2. **Prepare a comfy and roomy read-aloud area:** It's important that your area is large enough for everyone to see and sit comfortably.
3. **Introduce the book:** Look at the book cover together and ask children to guess what they think the book might be about. Name the author and illustrator to reinforce the concept that people write books and draw images to illustrate the story.
4. **Notice how you hold the book:** Children need to see the illustrations, so be sure that the book is wide open and held to your side so that you can read the story and share it at the same time.
5. **Give it all you've got!** Dramatic and fun sound effects, hand motions, facial expressions, and changes in tone bring the story to life for the audience.
6. **Involve your listeners:** If it suits the content of the book, give children a line to repeat, a hand motion, or a sound effect that they can add at the appropriate time.
7. **Help children see the story:** Point out details in illustrations and characters to help children become keen observers and discuss what they notice.
8. **Invite children to use their senses:** Help children imagine sounds, smells, tastes, physical sensations, emotions and sights. Every so often, stop and ask children to pretend to use their senses to explore a part of the story: "What do you think you could hear on a busy road? What do you think you would feel when you cycled fast down a hill?"
9. **Develop ways to respond to questions:** Children love to ask questions while you are reading. Some questions are important and need to be answered right away to understand the story. Other questions will be answered in the story itself. Stopping too often will break up the flow of the story.
10. **Make time for discussion:** Children love to talk about a book that you've just read. Ask the children questions to start a discussion.

Activity 10.1 – What do you know about active travel?

Complete the following quiz:

1. Active travel is a journey that involves physical activity. List **three** types of active travel:

   1. ..... 2. ..... 3. .....

2. Public transport counts as active travel because you have to walk or cycle to the pick-up and drop-off points. Name **three** types of public transport:

   1. ..... 2. ..... 3. .....

3. **Fill in the missing word to complete these important safety rules or advice:**

- Always wait for the bus to **l**..... the bus stop before crossing the road. Stop, Look, Listen, be alert.
- Always wear your **h**..... when cycling or scootering and make sure it is correctly fitted.
- Stay alert when crossing railway tracks. Trains move very fast. You can't hear them until it's too late. Only cross at the barriers or level crossing when the lights and bells have **s**..... Look both ways, trains can come from **e**..... direction.
- Car parks can be busy and dangerous. Stop, Look and Listen for moving **c**..... and watch for reversing lights. **W**..... your bike or scooter in car parks.
- At the bus stop, stay as far back from the **r**..... as possible.
- Stay alert. Stop, **L**....., Listen before crossing a driveway. Watch for **r**..... lights.
- Stop, Look, Listen before crossing a road. At a pedestrian crossing, wait until cars to come a complete **s**..... and then make eye contact with the **d**..... so they know you are about to cross.

4 **Circle four of the statements below that describe how active travel benefits our mental health:**

A. 10 to 20 bikes can park in one car space

B. Being active can improve concentration and learning

C. Earth's temperature has risen 1°C over 200 years

D. You sleep better at night with regular exercise

E. Transport produces a quarter of global carbon dioxide (CO_2) emissions

F. Exercise is a stress buster!

G. Your knee is the largest and most complex body joint

H. Active people feel good and are happier

5 **Circle four of the statements below that describe how active travel benefits our physical health:**

A. Being active makes your heart healthier

B. Your heart is the size of your clenched fist

C. Muscles grow stronger with exercise

D. We each have more than 600 muscles in our body

E. A third of all car trips in NZ are less than 2km

F. Physical activity builds healthy bones

G. Most cars burn fossil fuels which are all non-renewable

H. Regular exercise helps your joints stay healthy

6 **Circle four of the statements below that describe how active travel benefits our environment:**

A. Exercise is a stress buster!

B. Active travel uses less fossil fuel

C. People who are fit have stronger immunity

D. Active travel reduces road congestion

E. The heart beats about 100,000 times per day

F. Walking, cycling and scootering don't use any fossil fuels

G. Petrol and diesel cars contribute to global warming

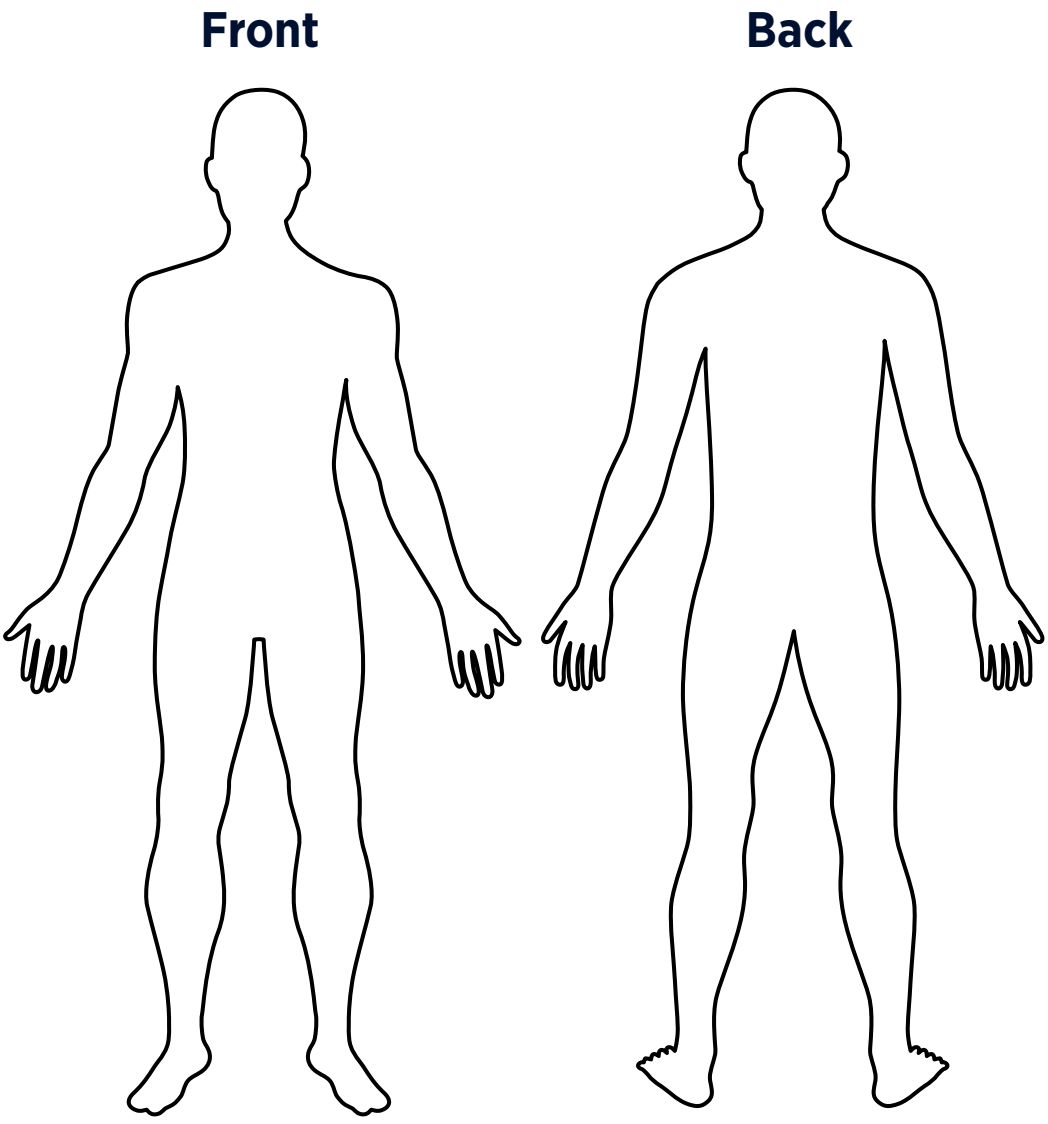
H. Active travel produces less air pollution

7 When we exercise, we can feel our pulse getting stronger and faster. It tells us how fast our heart is pumping. This is called our heart rate. When we measure our heart rate, we measure the BPM.

What does BPM stand for? .....

8 Our heart pumps blood around our body. What does the blood carry to the muscles to help them work well? .....

9 The main muscles used when walking and cycling are our gluteals, hamstrings, quadriceps, and calf muscles. Label these muscles on this diagram.



10 What are fossil fuels? Circle the best answer:

A. Trees, firewood, paper

B. Ice, snow, rain

C. Oil, coal, natural gas

D. Rock, gravel, sand

11 What produces a quarter of global carbon dioxide (CO_2) emissions? Circle the best answer:

A. Forests

B. Transport

C. Rivers

D. Farming

12 Most cars currently use refined fossil fuels to power them, releasing carbon dioxide (CO_2) and other harmful gases into the air. What are the names of these refined fossil fuels? Circle the best answer:

A. Water and oxygen

B. Carbon dioxide

C. Petrol and diesel

D. Electricity

Activity 10.2 – Self-evaluation

Complete this reflection and self-evaluation:

1 Rate your enjoyment of the following activities by circling a face for each activity.

	😄 I really enjoyed it	😊 It was OK	😐 I didn't enjoy it
Giant jigsaw puzzle	😄	😊	😐
Ready Steady Go! challenge	😄	😊	😐
Outdoor games	😄	😊	😐
Wheels Day	😄	😊	😐
Sharing booklets with juniors	😄	😊	😐

2 How well did I do?

I worked well in a team	👍	👊	👎
I listened carefully to instructions	👍	👊	👎
I focused on my work when I worked on my own	👍	👊	👎
I was patient and encouraging with junior students	👍	👊	👎
I feel more confident walking/cycling/scootering to school	👍	👊	👎

3 What activity in the Ready Steady Go! programme did you MOST enjoy?

.....

Why?.....

.....

4 What activity in the Ready Steady Go! programme did you LEAST enjoy?

.....

Why?.....

.....

5 Write three benefits of active travel that are most important to you.

1. ..... 2. ..... 3. .....

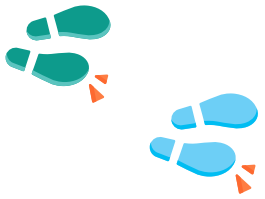
6 List two active travel goals that you would like to achieve in the future.

1. .....

2. .....




Notes



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