



Bike to School Week 2021

27 September – 1 October

How does cycling fight climate change?

Objectives

Learn about climate change and where the UK's emissions come from.

Explore how emissions can be reduced, with an emphasis on transport.

Activity outline

Use the '[Cycling to fight climate change](#)' PowerPoint to facilitate discussion around climate change and emissions. Use the teacher prompt if required.

Pupils fill out the cycling to fight climate change worksheet with learnings from the group discussion. This worksheet includes writing their own climate pledge.

Extension

Pupils make a short video or a poster explaining how cycling fights climate change.

Inspired by:

Sustrans School Officer.



Time needed:

20 minutes
(1 hour with extension)



Resources needed:

[Cycling to fight climate change PowerPoint](#)

Large whiteboard/
smartboard/flip chart paper

Cycling to fight climate
change pupil worksheet



Solo/group activity:

Both



Curriculum links

Geography (Eng)

The world around us (NI)

Social studies – People,
Place & Environment (Scot)

Humanities (Wales)





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Conversation starter: teacher prompt for the cycling to fight climate change PowerPoint

Weather and climate

Pupils discuss the difference between the two terms.

Climate change

Pupils work in pairs to come up with a definition of the term 'climate change'.

Where do our emissions come from?

Pupils create a mind map of different emission sources.

Pupils discuss where the UK's emission come from.

Tip – bunker fuel is any fuel used on board a ship.

Pupils discuss where transport emissions come from.

How can we reduce emissions?

Go back to the emission sources mind map – pupils discuss what could be done as individuals and as a group to reduce emissions.

Pupils discuss what would make the most impact.

Pupils discuss what the society/government need to do.

This machine fights climate change

Pupils discuss how switching mode of transport could reduce emissions.

My Carbon Pledge

Pupils to come up with a carbon pledge – something they can do as an individual/class/school to reduce their carbon footprint. Eg walk instead of drive, eat less meat.



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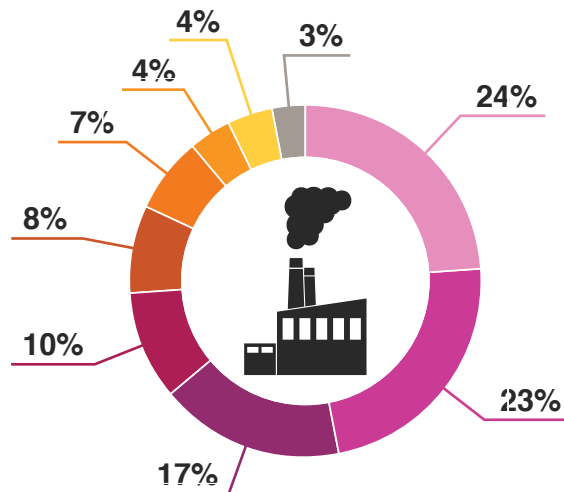
Cycling to fight climate change

What is climate change?

Where do UK emissions come from?

Match up the sector and the percentage.

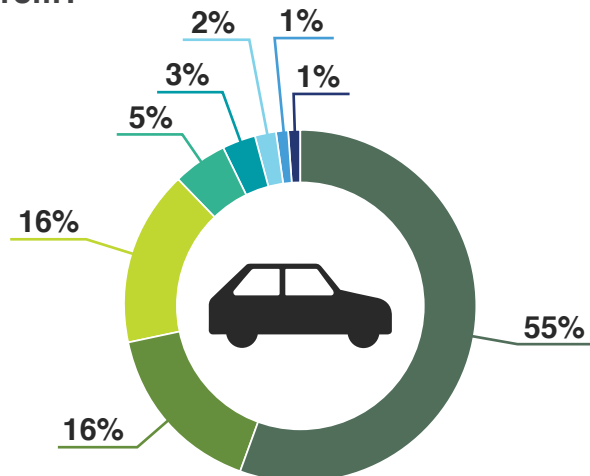
- Agriculture
- Buildings
- Bunker Fuels
- Electricity & Heat
- Fuel combustion
- Industry
- Manufacturing
- Transport
- Waste



Where do our transport emissions come from?

Match up the mode and the percentage.

- Aviation (domestic)
- Buses/coaches
- Cars/taxis
- HGVs
- LGVs
- Rail
- Shipping (domestic)
- Other





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What can we do to reduce our emissions?

What are the most important things you could do as an individual to reduce emissions?

My Carbon Pledge

I commit to...



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Which fabrics should cycling clothing be made from?

Objective

Researching and designing cycle clothing to wear to school during different times of the year.

Activity outline

Use the [Cycling clothing PowerPoint](#) to facilitate discussion around the different types of clothing materials. Pupils discuss different fabrics and their properties.

Pupils fill in the cycling clothing worksheet with learnings from the PowerPoint and group discussion.

Extension

Pupils use their cycling clothing worksheet to create a poster or leaflet that shows a range of design ideas for a cycling uniform. Pupils discuss the features and fabrics of each type of cycling clothing and vote on the best uniform.

Tip – pupils can design a school uniform that is cycling friendly, or a cycling kit that can be worn on the way to school.

Inspired by:

Sustrans School Officer.

Useful clothing resources

[BBC Bitesize Material categories and properties](#)

[Road CC clothing review](#)

[British Cycling Clothing Guide](#)



Time needed:

15 minutes
(1 hour with extension)



Resources needed:

[Cycling clothing PowerPoint](#)

Large whiteboard/
smartboard/flip chart paper
Cycling clothing worksheet



Solo/group activity:

Both



Curriculum links

Design & Technology (Eng)
STEM (NI)
Technologies –
Food & Textiles (Scot)
Science & Technology
(Wales)





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Cycling clothing

List the properties you want your cycling clothing to have:

(E.g. waterproof, breathable, stretchy.....)

Use this table to compare fabrics:

Eg Lycra, cotton, nylon, wool etc

Fabric	Advantage	Disadvantage

What fabric is best for summer?

What fabric is best for winter?

List any special features you want your cycling clothing to have:

Including features to improve visibility or cope with weather conditions



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Get to know your bike

Objective

Learn and correctly identify the different parts to a bicycle.

Activity outline

Give each group or pupil a pack of bike part labels and a piece of blue tack.

Pupils discuss the different bicycle parts and where they think they are located.

Pupils take turns to stick a label onto the print out bicycle or demonstration bike.

Extension

As a group discuss and identify which bicycle parts might need more maintenance and why.

Can the class identify certain bike parts which should be checked before using?

Inspired by:

Bike Maintenance lesson run by Sustrans School Officers.



Time needed:

10 minutes



Resources needed:

Bike part labels

Blue tack

A3 print out of a bicycle or a bike that can be used for demonstration



Solo/group activity:

Either



Curriculum links

Science (Eng)

STEM (NI)

Technologies (Scot)

Science and Technology (Wales)



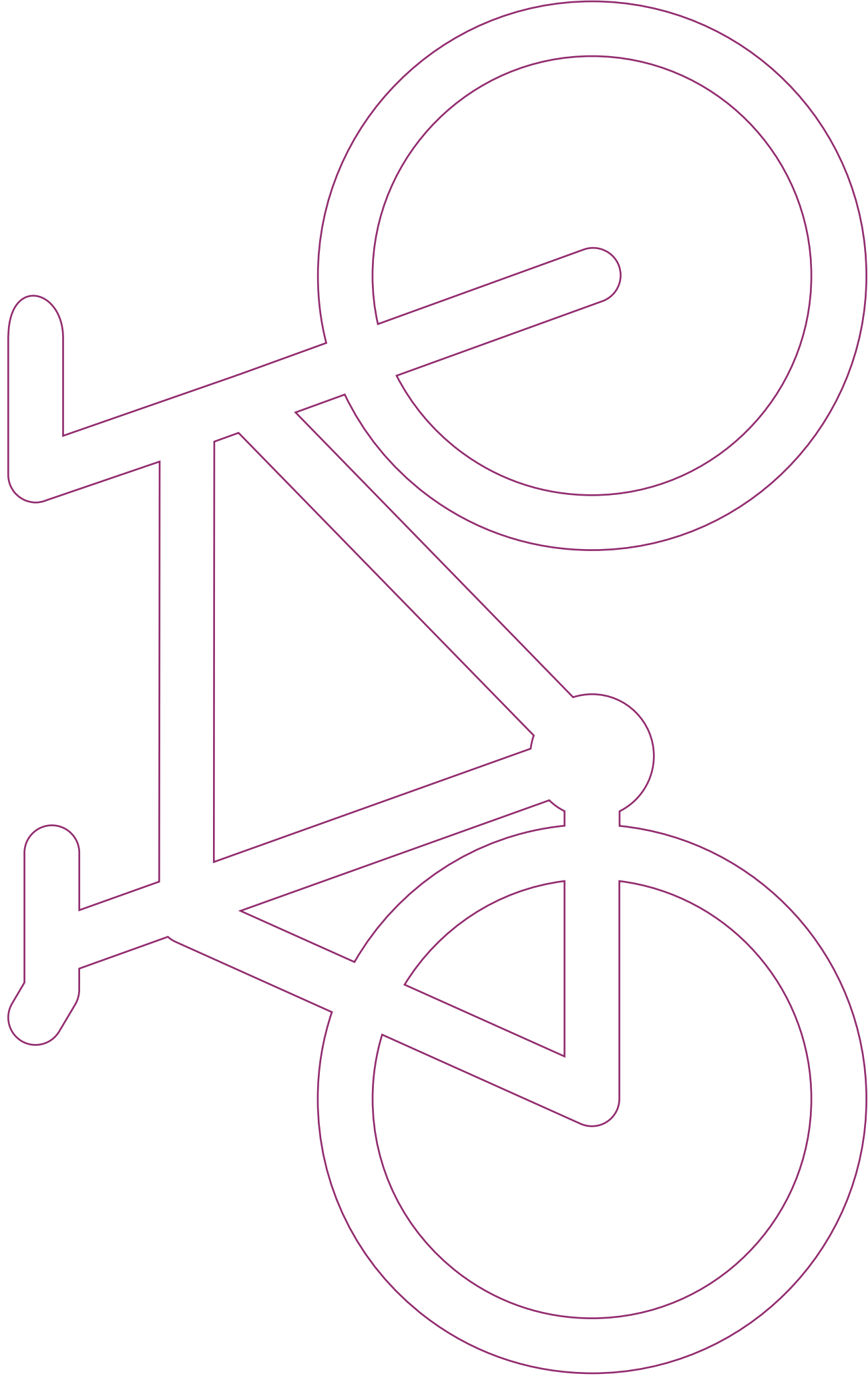


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Bike part labels

Seat Clamp	Chain Stay	Head Tube	Fork Crown	Handlebars
Suspension Forks	Front Hub	Chain Set (chainrings and crank)	Rear Derailleur	Seat Stay Bridge
Drop-out / Rear End	Bottom Bracket Shell	Fork Blade	Headset	Tyre
Pedal	Chainrings	Rear Sprockets or Cassette	Seat Stay	Seat Tube
Down Tube	Drop-out / Fork End	Stem	Rim	Front Changer
Chain	Seat Post	Gear Hanger	Top Tube	Fork Column
Gear Levers	Saddle	Spokes	Crank	Brake





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Route planning my cycle journey

Objective

Learning how to use different mapping tools to plan routes for cycling.

Use the knowledge gained to plan a route in the local area (extension).

Activity outline

Introduce pupils to the two different route planning tools; Google Maps and Komoot.

Use the [Route planning my cycle journey PowerPoint](#) to discover the key features available in Google maps and Komoot.

Pupils either individually or in a group explore the different features of the route planning tools.

Tip – if pupils do not have access to an ipad or laptop the class can look at the route planning tools together on the smartboard.

Pupils fill out the route planning my cycle journey worksheet and discuss the pros and cons of the different route planning tools.

Extension

Pupils plan their own route using Google Maps and Komoot. Pupils record their findings on the route planning my cycle journey worksheet extension.

Inspired by:

Sustrans School Officer.



Time needed:

30 minutes
(1 hour with extension)



Resources needed:

[Route planning my cycle journey PowerPoint](#) and smartboard

Route planning my cycle journey worksheet

IPads/laptops with access to the internet
(in groups or pairs)



Solo/group activity:

Dependant on resources



Curriculum links

Geography (Eng)

The world around us (NI)

Social studies, People, Place & Environment (Scot)

Humanities (Wales)



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Route planning my cycle journey

Google maps

Three features of google maps are: _____

The five Google map layers are: _____

The feature I'd use to plan avoiding air pollution is: _____

The feature I think is most useful is: _____

Komoot

Three features of Komoot are: _____

The layers in Komoot are: _____

The feature I think is most useful is: _____

Route planning my cycle journey (extension)

Using Google Maps and Komoot, plan a cycling route in your local area, making use of the features each tool offers.

The route is going from _____ to _____ .

My chosen route is _____ km with _____ metres of ascent, and will take _____ minutes.

Why did you choose this route? _____

Google maps

How many alternative routes did Google Maps find? _____

How did you decide which one to choose? _____

Did you make any alterations to your route? If so, why? _____

Are there any busy roads along your route (using the traffic feature)? Could you avoid them?

Komoot

Did Komoot recommend a different route? What was different about it?

Did you make any alterations to your route? If so, why? _____

Do you go along any cycle paths? Which ones? _____

Is any of your route unsuitable for certain bikes? For example, is there an off-road section you would need a mountain bike for?

Which tool do you like more? Why? _____



Bike to School Week 2021

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How normal is my journey to school?

Objective

Use data to compare and contrast pupil's journey to school with other young people's journeys.

Activity outline

Pupils use the 'How normal is my journey to school?' worksheet to explore the data around journeys to school and how their mode of transport and journey length compares to the UK average.

As a group pupils discuss the questions on the 'How normal is my journey to school?' worksheet.

Pupils discuss what could be done to increase the number of people who cycle to school.

Inspired by:

Sustrans School Officer.

Tip – if you want to do this activity as a whole class use the **'How normal is my journey to school?' PowerPoint**



Time needed:

20 minutes
(1 hour with extensions)



Resources needed:

Interactive whiteboard or Projector

'How normal is my journey to school?' PowerPoint

'How normal is my journey to school?' pupil worksheet



Solo/group activity:

Both



Curriculum links

Maths (Eng / Scot)

Maths and numeracy – Handling data (NI)

Mathematics and Numeracy (Wales)





Bike to School Week 2021

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How normal is my journey to school? Extension activities

Extension 1 – Ethnicity and journey to school

Explore the ethnic breakdown of time taken to travel to school data. On average different ethnic groups have significantly different travel times to school.

Pupils discuss ideas of disparities in car ownership and where people live. [Government stats](#) show that 19% of people in the UK have no access to a car.

Use [Datashine](#) to explore census data. Investigate where ethnic groups live.

Extension 2 – How far do you travel?

Pupils use [traveltime app](#) to see how far they could get from school in a 10 minute walk and then a 10 minute cycle.

Extension 3 – 15 minute neighbourhoods

[Show this video](#) about 15 minute neighbourhoods.

Discuss if your local area could be a 15 minute neighbourhood?





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How normal is my journey to school? Worksheet

Time spent traveling to school can be the most boring and frustrating part of your day. On the other hand, it can also be a chance to be outside, catch up with your friends and see more of where you live. The way people travel to school varies all over the country from public buses dominating in London to private cars in more remote rural areas.

You are one of 10 million school children in the UK (9 million in England, 500,000 in Wales, 700,000 in Scotland, 300,000 in Northern Ireland) making a journey from home to school and back each day.

How do you think your school journey compares to everyone else's?

How do you travel?

What's the most common form of travel to school across the UK?

Using the numbers below, estimate which percentage fits with each mode of travel.

1%

2%

4%

11%

37%

43%

Bicycle _____

Local bus _____

Train _____

Car / Van _____

Private bus _____

Walk _____



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How normal is my journey to school? Worksheet

Discussion:

Why do you think most people travel like this to school?

What's stopping people from cycling to school?

What do you think the percentages are for your class or school?

How long does it take?

The UK average journey to school takes 19 minutes.

Use Google maps to calculate your journey to school and fill in the table below.

My journey time	Friend 1	Friend 2	Friend 3	Friend 4	Friend 5	Friend 6	Average

Calculate the average for you and 6 friends.

How does your average compare to the national average?

What's the mean / median / mode? What's the range?

What does this tell you about the data?

Is there anything different about you and your friends' journey compared to the national average?