



Geography



We are Air Quality Officers

ASSESSED PIECE OF WORK

Chesswood Y3 Geography — We are Air Quality Officers



Key Knowledge

What I Should Already Know

- Countries of the UK (Key Stage 1)
- 4 points of the compass (Ks2)
- Types of Settlements (Ks2)

What is an Air Quality Officer?

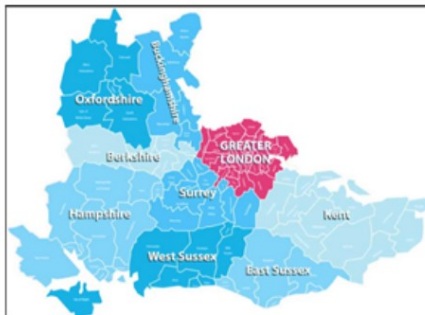
Someone who carries out air quality surveys, looks out for possible risks and seeks strategies for overcoming these, striving for high quality of air in our cities and towns.

The 9 regions of England. Worthing is located in the South East.

Regions are divided further into counties.

The counties of the South East of England are West Sussex, East Sussex, Kent, Surrey, Hampshire, Surrey, Berkshire, Oxfordshire, Buckinghamshire and Greater London (9)

Worthing is in West Sussex. Counties around West Sussex—east is East Sussex, west is Hampshire, north is Surrey and to the south is the English Channel.



Sustainability

Towns and cities will have problems with pollution because there are lots of people living in a small area.

Traffic is the main producer of air pollution in cities.

Solutions to air pollution in cities include: green public transport, charging stations for electric cars, bicycle lanes, congestion charges and low emission zones.



Key Vocabulary

Word	Definition
Site	The piece of land a settlement is built on.
National	Relating to a country
Regional	Relating to a region (part) of a country
Local	Relating to a particular area or your own neighbourhood
Regions	Large areas of the country
County	Smaller areas of the country with its own government offices
Capital City	Is where the local government of a country is. The leaders work in the capital city.
Pollution	Pollution is anything that makes the earth dirty and unhealthy. Land, air, and water are all affected by pollution
Air Quality	a measure of how clean or dirty the air in a particular area is.
Air pollution	Is when unwanted chemicals, gases and particles enter the air causing harm to animals and damaging the natural cycles of the Earth
Traffic	Vehicles (cars, buses, motorbikes etc moving along a road)
environment	The natural world, with the plants and animals living in it.
sustainability	Sustainability is the practice of using natural resources responsibly, so they can support both present and future generations
urban	Relating to a city or town (housing, factories, offices, roads and footpaths)
Green urban	An area in a town or city which covered with grass or other trees (park or woodland.)

Y3 Geography — We are Air Quality Officers

Key Skills



Fieldwork Skills

Pupils to consider the problem of air pollution on Chesswood Road by counting

the amount of traffic over a 10 minute period using a tally chart and creating a block graph or bar chart to present the data.

On the OS map showing Brighton Road (Splashpoint) and Chesswood Road, we can see that Brighton Road is a main road and Chesswood Road is a minor road. This means that Brighton Road is busier with more traffic than Chesswood Road.

Traffic Survey and Block Graph Activity

Name: _____ Date: _____	
Count	Sketch
Car	
Bus	
Motorbike	
Cyclist	
Pedestrian	
Other	
Tally	
Total	

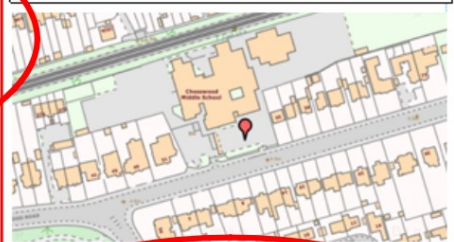
Questions:

1. Which car is the most?
2. Which car is the least?
3. How many of each type?
4. What is the total?

Fieldwork

Pollution Problems

- Location: From front playground/footpath



Map Skills



Worthing 1890s



Worthing 1950s



Worthing 2000s

Car Pollution Investigation
Pupils to collect data (how many pedestrians, cyclists, vans, cars, lorries, buses and motorbikes) for 10mins.

Worthing has increased in sized since the 1890s. Then most of the town was **south** of the railway line and was only starting to reach **West** Worthing. By the 1950s, the town had grown to the **north** and by the 2000s, Durrington is also providing housing for a larger population.

Key Ordnance Survey Symbols

- Single carriageway main road
- Secondary road
- Minor road over 4m wide
- Minor road under 4m wide

RECAP

what is **POLLUTION?**



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Pollution

Pollution is when gases, smoke and chemicals are introduced to, and damage, the environment.

In recent times, there has been growing concern about the health implications of **air pollution** on humans, animals and plants.

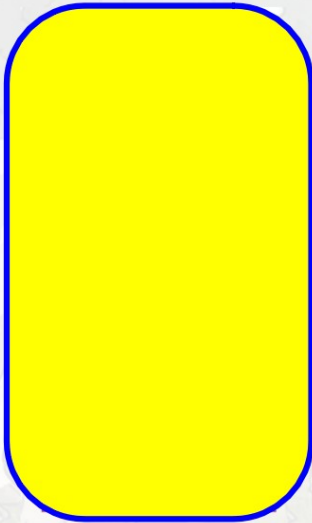


RECAP

What is Air Pollution

Air pollution is when unwanted chemicals, gases and particles enter the air and the atmosphere causing harm to animals and damaging the natural cycles of the Earth.

It is the term we use to describe any harmful gases in the air we breathe.



Can you remember what the 5 main types of air pollution are?

Answers

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Transport

Agricultural

Household

Industrial

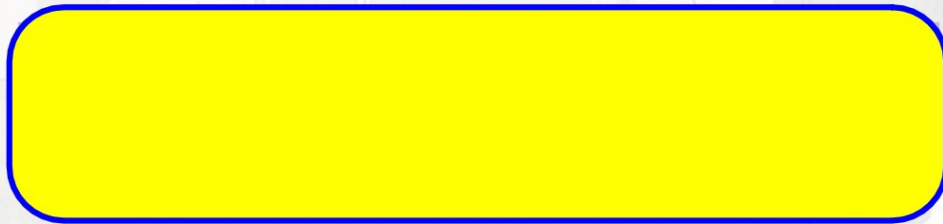
Waste

Can you remember what the 5 main types of air pollution are?

How Does Air Pollution Affect Us?

Breathing in polluted air puts you at a higher risk of developing respiratory diseases, such as asthma and bronchitis. When regularly breathing in polluted air, the lungs do not function as well and become inflamed. Coughing and wheezing are a common symptom of people who live in busy, built-up cities as they are at most risk.

Does this really affect us at
Chesswood Junior School?



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Does this really affect us at Chesswood Junior School?

Yes. Think about all the cars that drive by or sit outside the school gates running their engines with car fumes filling the air!

Let's have a look at just how many soot particles / fumes are produced during the combustion of petrol and diesel.

Combustion is the scientific word for burning.

DO NOT TRY
THIS AT
HOME!



How dirty do you think that the sock would be after a longer period of time?

We are going to conduct a survey outside Chesswood Junior School to find out the number of different methods of transport that use the road during a 10 minute period.

We will log our findings on a Tally Chart - can you remember how to do this?

Watch the video clip to find out how.

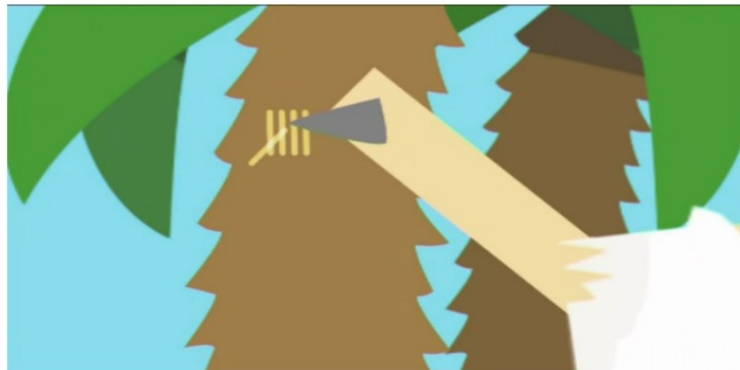


KS2

Data organisation and tallying

Part of **Maths** | **Tables, graphs and charts**







Duration 01:14



You are about to watch a 10 minute video clip of the traffic which passed outside Chesswood Junior School during a morning. Whilst watching, record the total number of vehicles that you see.

Only include those that drive over the pelican crossing at the traffic lights.

Traffic Survey Tally Chart

	cars	buses or coaches	vans	lorries	motorbikes	bicycles
						
Tally						
Total						







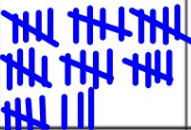




Geography Traffic Survey

Unlisted

How many did you see?

Traffic Survey Tally Chart

	cars 	buses or coaches 	vans 	lorries 	motorbikes 	bicycles 
Tally						
Total	38	0	11	2	0	0

Don't worry if you didn't get the same totals - just keep your tally chart safe until next lesson!