



Clean Air Detectives: Classroom Activity Pack

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Clean Air Detectives

Today we will be **analysing** data to
discover the pollutants in our air



1. ANALYSE

We're going to look at different types of graphs and ask three questions:

1. What is the graph showing?
2. What do you think is good about this graph?
3. What questions would you ask to dig deeper?

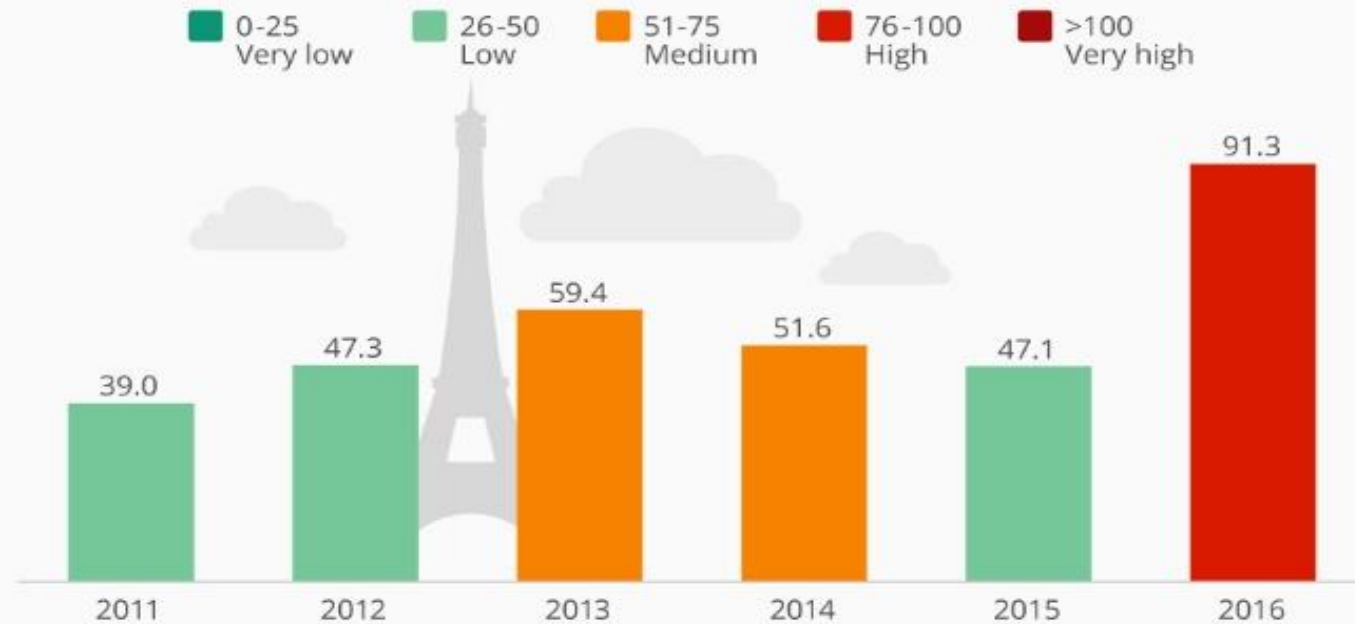




Bar chart

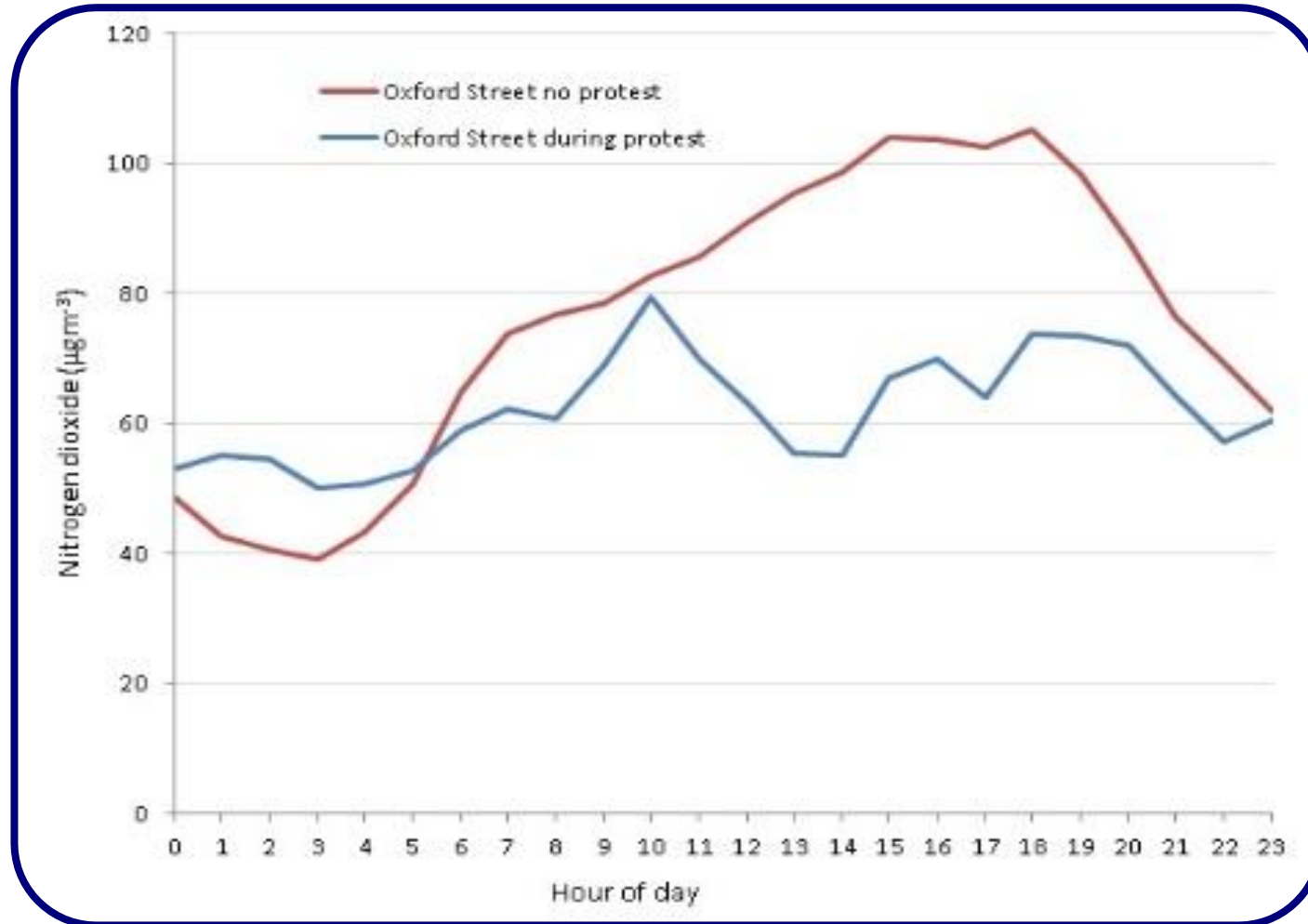
Paris Air Pollution Has Reached A Critical Level

Mean air pollution levels over the first seven days of December in Paris* 2011-2016



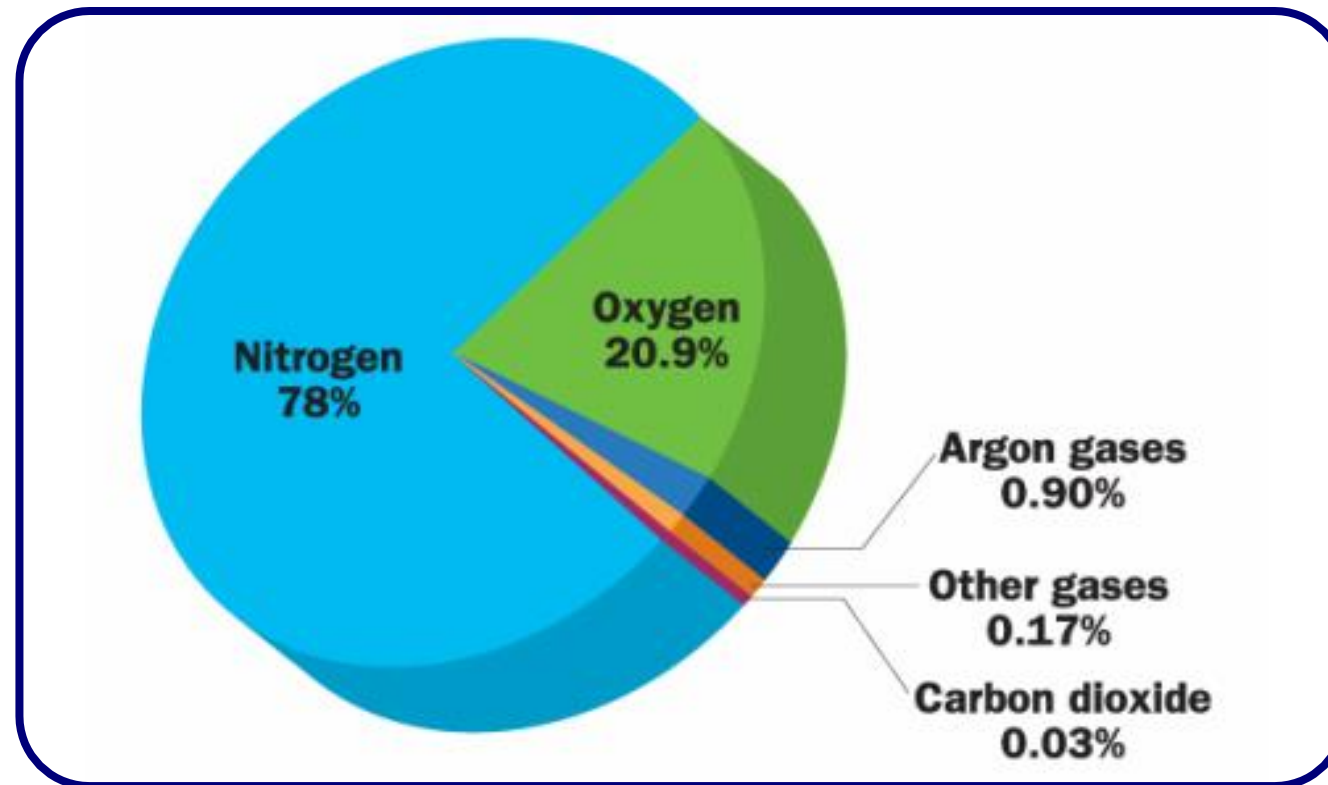


Line graph





Pie chart





Plotting your data

The data below was recorded by an air quality monitor in an urban school in March 2020. Copy the data into the table in your Logbook.

	8:00	10:00	12:00	14:00	16:00	18:00
Temperature (°C)	18.3	20.5	21.1	22.5	20.6	20.03
Carbon Dioxide (ppm)	396	1015	1311	1115	675	482
Fine Particulate Matter (µg/m ³)	0	1	1	1	2	0

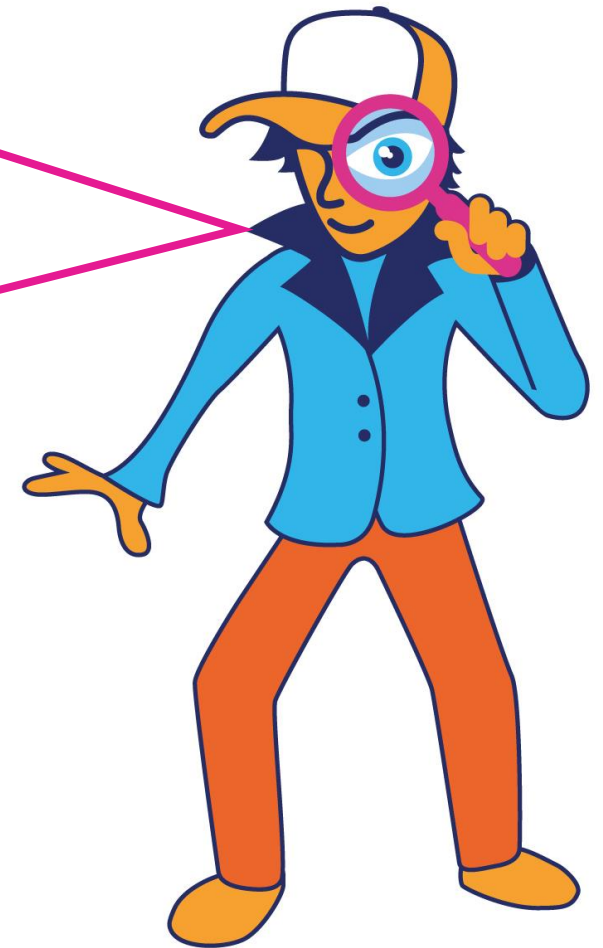


1. ANALYSE

Plotting our data on our graphs!

1. Decide which pollutant to plot and what your axis will be
2. Label your axis
3. Give your graph a title

Now plot the summer data in your log book on the same graph.





Analyse

Reading from your graph, answer the following questions:

1. What was the maximum/minimum reading for winter and summer?
2. What time of day was this?
3. Why do you think this was?
4. What are the similarities or differences between the data from winter and summer?

Using your graph, can you predict what the air quality might have been at 8pm in March ?





Clean Air Detectives

Today we will be **identifying** who
the victims of air pollution really are



Air in our bodies

Look down at your chest.
Take a deep breath in.
Now breathe out.

What do you notice?

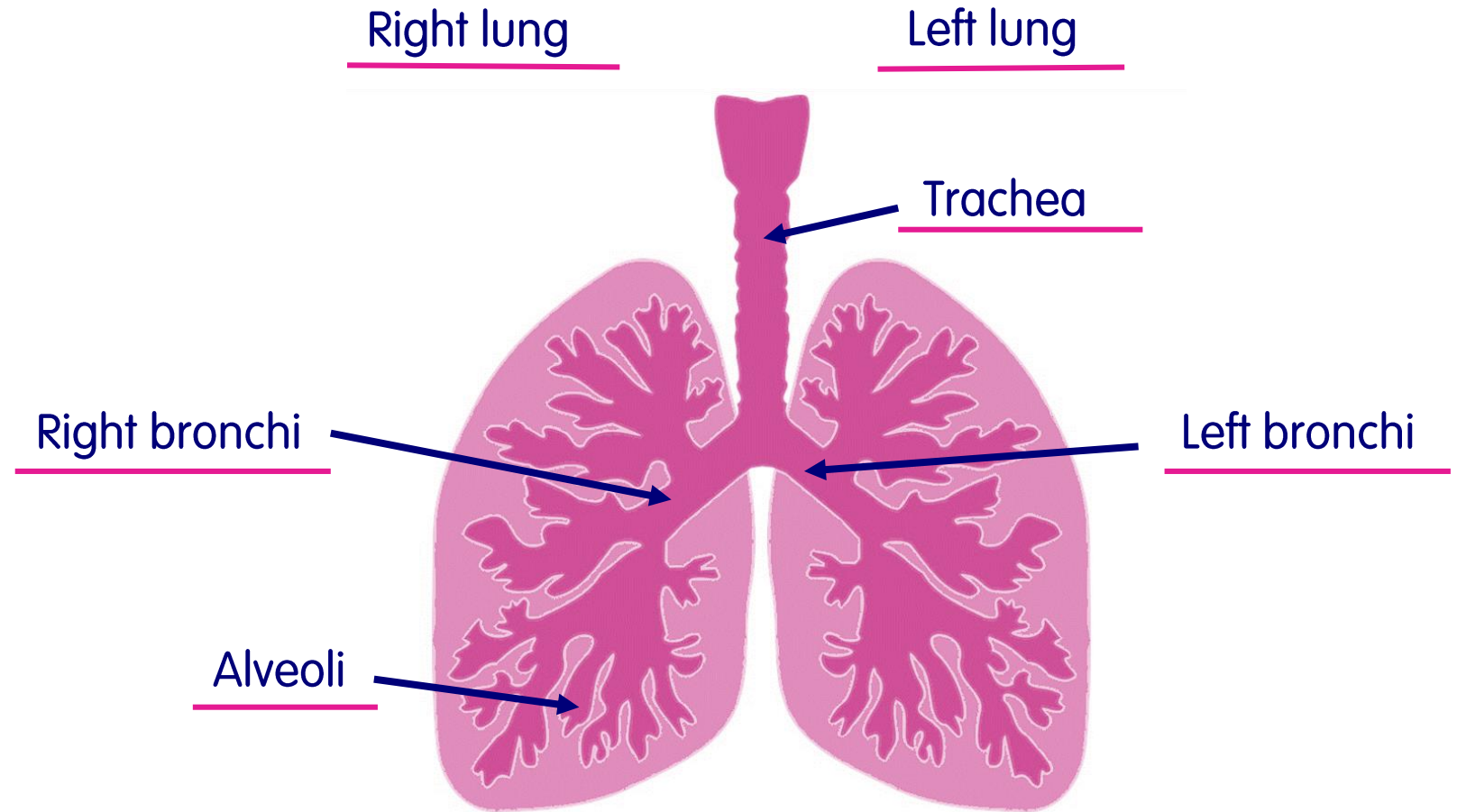
We're going to learn about how our lungs work.



2. IDENTIFY

Our lungs

Label the
lungs in your
Logbook.





2. IDENTIFY

Right detectives, we're going to
make our own lungs!

You will need:

A paper straw
A paper bag
Some sticky tape
Colouring pencils





How to make your own lung

1. On your paper bag, draw the outline of your lungs
2. Now label this and colour it in
3. Put your straw in the top of your bag and line it up with your trachea (windpipe!)
4. Tape your straw in place securely
5. Seal the top of the bag with tape – make sure there aren't any holes!





Breathing with asthma

Try breathing in and out through your straw and see how your lung inflates.

Now squeeze the straw slightly to narrow your airways*.

How did this make you feel?





How dirty air affects our lungs

Hear [Joe's story](#) about his experience of asthma and make notes in your Logbooks.

Our key questions are:

1. What are the symptoms of asthma?
2. What are three health conditions associated with air pollution?
3. What is Greater Manchester doing to reduce air pollution?



Impacts of air pollution

Look at the impacts in your logbook – which do you think is the most serious? Why?





2. IDENTIFY

How can we reduce our exposure to air pollution?

Close windows during rush hour



Walk or cycle down side streets away from busy roads



Open windows when cooking





Clean Air Detectives

Finally, its time to **act** on the
issue of air pollution



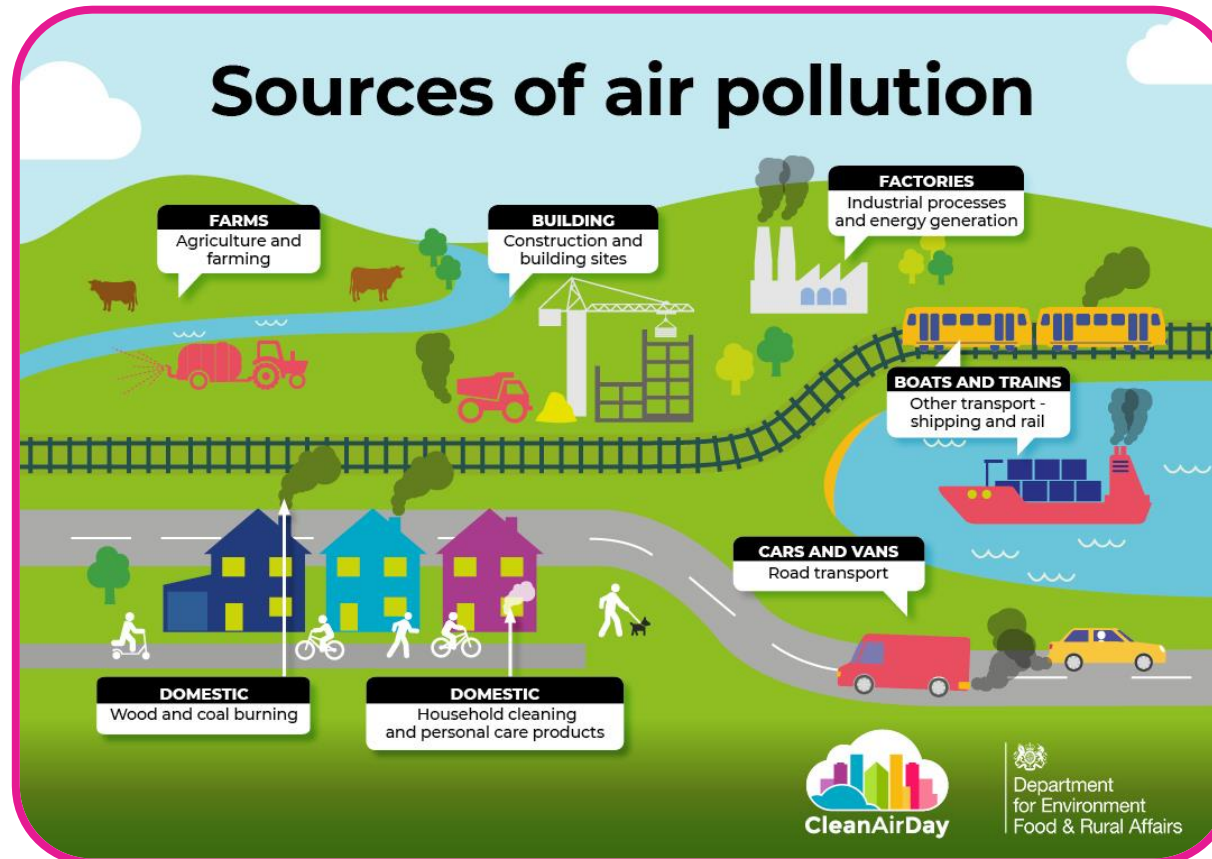
Can you remember the main sources of air pollution?

A 'source' is where something has come from.





Which source affects your school most?





3. ACT

How can we improve the
air in our local
community and school?

Start a walking bus
– a supervised
walk to school,
collecting more
children as you go!



Example: A walking bus

In 2019, Goose Green Primary School organised their first **walking bus**.

Over 40 students made their way to school on foot, supervised by parents/guardians, collecting students as they went!

Could this work at your school?





Example: Car free streets

Students have campaigned to close the street to cars at drop-off and pick-up times to reduce pollution close to the school.

Could this work at your school?





Your Clean Air Action Plan

Team	Location
Changes we want people to make	Key messages we want to share
Who do we want to make these changes?	How will we measure our impact?



Start your campaign!

Create a poster to
inform visitors to
the school

Create an
assembly to
inform other
students

Some ideas...

Write a letter to
your MP asking
for support and
change

Design a leaflet
to send home to
parents



Share your campaign!

Inspire others by sharing what you are doing to improve air quality in your school and community.

Sharing your stories and pictures with us:
transformourworld@globalactionplan.org.uk
[@TransformSDG](https://www.instagram.com/TransformSDG)



Clean Air Detectives

Today we will be **reporting** about the issue of
air pollution



Your news report

You are going to write your own news report about the issue of air pollution.

It's time everyone knew about the dirty air we breathe!





Let's get some ideas...

What was good about this news report?

What didn't you like?

What would you do differently?





Tell a story through the report

1. Set the scene: **What is the problem?**
2. Provide evidence: **Can you use the data provided to you in the analyse activity or research your own?**
3. What is being done? **Give examples from your action plan**
4. What more needs to be done? **This is your big ask!**

Who could you interview? Where would you film it?

News reader, Huw Edwards, shares his top tips [here](#)!





4. REPORT

Let's get going!

Use the template in
your Logbook to help
structure your report

