

Fly-tipping in your area

Teacher's notes, then the pupils' worksheet, then the answers

Key stage 3 (years 7 to 9, ages 11 to 14). Geography and Maths. One lesson of about 60 minutes.

Pupils look up their own council in Defra's yearly fly-tipping figures for England. They work out the rate per 1,000 people and draw two bar charts, then compare their council with its neighbours. Along the way they find out why the biggest number isn't always the worst problem, and what the figures leave out.

The worksheet sends pupils to Defra's own spreadsheet rather than copying it, so it stays right when next year's figures come out. The worked example uses four made-up councils.

Learning objectives

By the end of the lesson, pupils can:

- find a council's figures in a government spreadsheet
- work out a rate per 1,000 people and round it to one decimal place
- draw a bar chart, and explain why a rate is a fairer comparison than a count
- say what the figures count and what they leave out

Pupils see this at the top of their worksheet:

We are learning to compare fly-tipping in different council areas fairly.

- I can find my council's figures in a government spreadsheet.
- I can work out a rate per 1,000 people and round it to one decimal place.
- I can explain why a rate is a fairer way to compare than a count.

Curriculum links

Geography, key stage 3.

The programme of study asks pupils to "develop greater competence in using ... geographical skills in analysing and interpreting different data sources". Part 3 does that with a government spreadsheet.

Maths, key stage 3.

Number: "round numbers and measures to an appropriate degree of accuracy [for example, to a number of decimal places or significant figures]". Ratio, proportion and rates of change: "understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction", which is what a rate per 1,000 people is. Statistics: "construct and interpret appropriate tables, charts, and diagrams, including ... bar charts".

Timings

- 5 minutes: Opening. Read the opening out, then ask what fly-tipping is and where pupils have seen it.
- 15 minutes: The worked example (part 2). Work Larkmoor through together, then pupils do the other three councils.
- 20 minutes: Finding their own council and three neighbours (part 3).
- 10 minutes: The two charts (part 4).
- 10 minutes: Plenary questions, then the exit task (part 6).

Part 5 is for pupils who finish early, or for homework. Its points to draw out are in the answers section.

What to print

The PDF comes in three parts: these teacher's notes on pages 1 to 5, the pupils' worksheet on pages 6 to 11, and the answers on pages 12 and 13.

Print pages 6 to 11 for each pupil, or one between two. The exit task is on a page of its own (page 11), so pupils can hand it in. Keep the teacher's notes and the answers for yourself.

Part 3 needs a computer or tablet for each pair. Without them, find the figures yourself before the lesson and print the rows for your council and its neighbours.

How to run it

Before the lesson.

Go to Defra's fly-tipping statistics page (gov.uk/government/statistics/fly-tipping-statistics-for-england) and download the spreadsheet called "Flytipping incidents and actions taken (reported by LAs in England)". Open the tab called LA_incidents, which starts by showing only the latest year, and find your school's council and the councils around it, so you can help a pair who gets stuck. The spreadsheet opens in Excel, Google Sheets or LibreOffice. If you aren't sure which council collects the bins at your school, GOV.UK's council finder (gov.uk/find-local-council) will tell you from a postcode. The figures are for district, borough, city and unitary councils, not county councils.

Opening (read this out)

Somebody dumps an old mattress in an alleyway. A council crew comes to clear it up, and someone writes it down. Every year, councils in England write down more than a million fly-tips like that, and the government publishes the numbers for every council.

Today you're going to find your own council's numbers and see how it compares with the councils next door. You'll also find out why the council with the biggest number isn't always the one with the biggest problem.

The lesson, step by step

1. Read the opening out. Ask what fly-tipping is and whether anyone has seen some near school. Read the "We are learning to" line and the three "I can" lines at the top of the worksheet.
2. Part 1 and part 2. Read part 1 together. Work Larkmoor's rate through on the board, then pupils work out the other three councils (question 1) and answer questions 2 to 4.
3. Part 3. Pairs follow the seven steps to find their own council and three neighbours, and fill in the table.
4. Part 4. Pupils draw both charts. Ask whether the councils come in the same order on Chart A and Chart B.
5. Plenary. Ask the questions below, from recall to reasoning.
6. Exit task (part 6). Pupils do it on their own. Collect it on the way out; it tells you who can work out a rate and say why it's fairer.

Pupils who finish early go on to part 5.

Plenary questions

1. What is fly-tipping?
2. Who counts the fly-tipping in today's figures, and who publishes them?
3. How do you work out the rate per 1,000 people?
4. Corran Heath had more incidents than Larkmoor but a lower rate. How can that be?
5. A council's number jumps one year. Does that prove there was more fly-tipping?
6. What dumping is missing from these figures, and which councils might that flatter?

The model answers are in the answers section.

Background for you

What's counted.

Each record is an incident that a council in England cleared or investigated. The latest edition covers 2024 to 2025, counting from April to March. Councils dealt with 1.26 million incidents that year, 9% more than the year before. That works out at 21 incidents per 1,000 people across England, from 53 in London to 9 in the South West. Defra publishes a new edition each year, and the next is due early in 2027.

What isn't.

The biggest dumps are handled by the Environment Agency, not the council, and aren't in these figures. The Environment Agency dealt with 98 incidents of large-scale illegal dumping that year. Most fly-tipping on private land, such as farms, is cleared by the landowner and never reported. So a council in the countryside may have more dumping than its figure shows.

Why councils aren't strictly comparable.

Defra says comparisons between councils should be made with care, and that councils shouldn't be called "good" or "poor" on their numbers alone. Councils record fly-tipping in different ways. One that asks the public to report it, and trains its street crews to record what they find, will count more than one that doesn't. In 2024 to 2025, 25 councils counted only the fly-tipping the public reported to them. The spreadsheet says how each council counts, and part 3 asks pupils to check. Defra adds that population density, the kind of housing, who lives there and busy commuter routes all make a difference.

The Maths.

The rate is incidents $\div$ population $\times$ 1,000, rounded to one decimal place. A rate is fairer than a count because it allows for the number of people, but it can't allow for differences in how councils count. A council's own figures over several years are a fairer comparison than two councils' figures side by side, as long as you start at 2019 to 2020. Defra changed how it counted that year, so earlier figures don't compare. The spreadsheet's Mid population estimates column holds the population Defra used: the Office for National Statistics' mid-year estimates for 2024, according to its Notes tab. Incidents per 1,000 people is Total Incidents $\div$ that population $\times$ 1,000, rounded to one decimal place, so a quick pupil can check one council's figure.

Keeping it kind and safe.

Fly-tipping may be near some pupils' homes, so keep the talk on places and councils, never on people or streets. Remind pupils never to touch dumped rubbish: it can hold broken glass, needles or asbestos. If they see fly-tipping, they tell an adult, and the adult reports it to the council

(gov.uk/report-flytipping).

Wales, Scotland and Northern Ireland

This lesson uses England's figures. Defra's statistics cover English councils only, and the other nations count fly-tipping in their own ways, so their figures don't sit in the same table.

- Wales publishes yearly figures for each council: Local authority recorded fly-tipping (gov.wales/local-authority-recorded-fly-tipping-april-2024-march-2025) (Welsh Government). A school in Wales could adapt part 3 to use them.
- Scotland has no yearly figures for each council like England's. The Scottish Government's baseline report for its National Litter and Flytipping Strategy (gov.scot/publications/provision-national-flytipping-baseline-report/) says there is no comprehensive, nationally reported data on flytipping incidents in Scotland, and pulls together what figures there are.
- Northern Ireland has no yearly figures for each council like England's either. Its 11 councils clear small-scale fly-tipping, and the Department of Agriculture, Environment and Rural Affairs' draft waste strategy (daera-ni.gov.uk/consultations/rethinking-our-resources-northern-ireland-resources-and-waste-management-strategy) proposes a consistent way to collect fly-tipping data across Northern Ireland. nidirect explains what to do about fly-tipping in Northern Ireland (nidirect.gov.uk/articles/fly-tipping).

Sources

1. Fly-tipping statistics for England, Defra, GOV.UK (the latest edition, and the local-authority spreadsheet whose LA_incidents tab and Notes are used here):
gov.uk/government/statistics/fly-tipping-statistics-for-england
2. Fly-tipping statistics for England, 2024 to 2025, Defra, GOV.UK, updated 25 February 2026 (the figures, exclusions and comparison warnings used here):
gov.uk/government/statistics/fly-tipping-statistics-for-england/fly-tipping-statistics-for-england-2024-to-2025
3. Fly-tipping statistics for England: next release, GOV.UK statistics release calendar:
gov.uk/government/statistics/announcements/fly-tipping-statistics-for-england--4
4. Find your local council, GOV.UK: gov.uk/find-local-council
5. Reporting fly-tipping, large-scale dumping or other waste crimes, GOV.UK: gov.uk/report-flytipping
6. National curriculum in England: geography programmes of study, Department for Education, GOV.UK:
gov.uk/government/publications/national-curriculum-in-england-geography-programmes-of-study
7. National curriculum in England: mathematics programmes of study, Department for Education, GOV.UK:
gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study
8. Local authority recorded fly-tipping, 2024 to 2025, Welsh Government:
gov.wales/local-authority-recorded-fly-tipping-april-2024-march-2025

- 9.** National litter and flytipping strategy: baseline report, Scottish Government:
gov.scot/publications/provision-national-flytipping-baseline-report/
- 10.** Fly-tipping, nidirect: nidirect.gov.uk/articles/fly-tipping
- 11.** Rethinking Our Resources: Northern Ireland Resources and Waste Management Strategy (draft, for consultation), Department of Agriculture, Environment and Rural Affairs (actions 44 and 45, and the 11 councils' small-scale clean-ups):
daera-ni.gov.uk/consultations/rethinking-our-resources-northern-ireland-resources-and-waste-management-strategy

Worksheet

Name: _____ Class: _____

We are learning to compare fly-tipping in different council areas fairly.

- ☐ I can find my council's figures in a government spreadsheet.
- ☐ I can work out a rate per 1,000 people and round it to one decimal place.
- ☐ I can explain why a rate is a fairer way to compare than a count.

1. What is fly-tipping?

Fly-tipping is dumping rubbish where it shouldn't go. A sofa left on a pavement is fly-tipping. So is a pile of bin bags in a country lane. It is against the law.

Councils clear up fly-tipping and count it. Each time someone dumps rubbish counts as one incident.

Every year, Defra (the government department for the environment) publishes the number of incidents each council in England recorded.

2. A worked example

Larkmoor is a made-up council. Here are its figures for one year, with the figures for the three councils next to it.

Council	What it's like	Incidents	Population	Rate per 1,000 people
Larkmoor	Market towns	1,947	86,500	22.5
Hollinsby	A city	9,812	241,300	
Fernwick	Countryside. Counts public reports only	488	64,200	
Corran Heath	Towns and suburbs	2,150	132,700	

A council with lots of people will have more fly-tipping, because there are more people to do it. So the number of incidents on its own isn't a fair way to compare two councils.

To compare fairly, work out the rate per 1,000 people. That's how many incidents there were for every 1,000 people who live there.

$$\text{rate per 1,000 people} = \text{incidents} \div \text{population} \times 1,000$$

For Larkmoor: $1,947 \div 86,500 \times 1,000 = 22.508...$

Round it to one decimal place: 22.5 incidents per 1,000 people.

1. Work out the rate per 1,000 people for Hollinsby, Fernwick and Corran Heath. Round each one to one decimal place.

2. Which council had the most incidents? Which council had the highest rate?

3. Corran Heath had more incidents than Larkmoor. Did it have a higher rate? Why are the two answers different?

4. Fernwick only counts fly-tipping that people report to it. It doesn't count what its own street cleaners find. Why might its number be too low?

3. Find your own council

Now find the real figures for your council and its neighbours. They come from Defra's spreadsheet, so they are always the latest ones.

1. Find out which council collects the bins at your school. Go to gov.uk/find-local-council and type in the school's postcode. If it gives you two councils, use the district, borough or city council, not the county council.
2. Go to gov.uk/government/statistics/fly-tipping-statistics-for-england. Or search for "Fly-tipping statistics for England".
3. Find the spreadsheet called "Flytipping incidents and actions taken (reported by LAs in England)" and download it. LA stands for local authority, which is another name for a council.
4. Open it. Excel, Google Sheets and LibreOffice can all open it. Click the tab called LA_incidents at the bottom. It starts by showing only the latest year.
5. Use Find (Ctrl+F, or Cmd+F on a Mac) to search for your council's name in the LA Name column. Write down the numbers in two columns: Total Incidents, and Incidents per 1,000 people.
6. Look at a map. Pick three councils that share a border with yours, and find their figures too.
7. The last column, Reporting basis, says how each council counts. If it says "Customer/public reported only", the council only counts fly-tipping that the public report. Put a tick for that council.

Council	Year	Incidents	Rate per 1,000 people	Public reports only? Tick
Yours:				

4. Draw two charts

1. Draw one bar for each council. Write the council's name under its bar.
2. Choose a scale that fits your biggest number, and write it up the side.
3. Chart A shows the number of incidents. Chart B shows the rate per 1,000 people.

Chart A: number of incidents

Up the side: number of incidents. Along the bottom: the councils.



Chart B: rate per 1,000 people

Up the side: incidents per 1,000 people. Along the bottom: the councils.



5. If you finish early

1. Look at your two charts. Does your council come out the same in both? Which chart is the fairer comparison, and why?

2. A council that records lots of fly-tipping might have more fly-tipping. Or it might be better at finding and counting it. Give one reason for each.

3. These figures leave some dumping out. The Environment Agency deals with the biggest dumps, and those aren't in this table. Most fly-tipping on private land, like farms, is never reported. How could this change the picture for a council in the countryside?

4. The same tab has your council's figures for earlier years. Use the filter button on the Year column to see them. Is fly-tipping going up or down? Start at 2019-20, because Defra counted differently before then.

5. Your council wants less fly-tipping. Suggest two things it could do. How would you know if they had worked?

6. Exit task

Do this on your own at the end of the lesson.

1. Council P had 3,000 fly-tipping incidents and 150,000 people. Council Q had 2,000 incidents and 50,000 people. Which council had the higher rate per 1,000 people? Show your working.

2. Finish this sentence. The rate is a fairer way to compare than the number of incidents because...

Answers (for the teacher)

The councils in the worked example and the exit task are made up. The answers for part 3 depend on each pupil's council.

Worked example (part 2)

1. The rates.

Hollinsby: $9,812 \div 241,300 \times 1,000 = 40.663\dots$, which rounds to 40.7. Fernwick: $488 \div 64,200 \times 1,000 = 7.601\dots$, which rounds to 7.6. Corran Heath: $2,150 \div 132,700 \times 1,000 = 16.201\dots$, which rounds to 16.2. Watch for two slips: leaving out the " $\times 1,000$ " (which gives 0.04 for Hollinsby), and rounding 40.66 down to 40.6.

2. Most incidents, highest rate.

Hollinsby on both: 9,812 incidents, and 40.7 per 1,000 people.

3. Corran Heath and Larkmoor.

No. Corran Heath's rate is 16.2 and Larkmoor's is 22.5. Corran Heath has more incidents, but it also has far more people, so there are fewer incidents for every 1,000 people. The rate takes the size of the population into account; the count doesn't.

4. Fernwick.

Fly-tipping that nobody reports is left out, so Fernwick may look better than it is. A quiet country lane might have dumped rubbish that only the council's crews ever see. Some real councils count this way: 25 of them in England in 2024 to 2025.

Points to draw out in part 5

1. The rate (Chart B) is fairer, because it allows for the number of people. A big council can top Chart A and sit in the middle of Chart B.
2. More fly-tipping: lots of flats with little room to store rubbish, busy roads where people pass through. Better counting: the council asks people to report it, trains its street crews to record it, or has an easy way to report online. Defra names both kinds of reason.
3. A countryside council may have more dumping on farms and private land than its figure shows, because most of that is never reported.
4. Answers depend on the council. A change in how a council counts can make its figure jump, so a sudden change is worth questioning.
5. Any sensible ideas: cameras at places where dumping happens, fines, cheaper or easier bulky waste collections, telling people to check their waste carrier is licensed. To know if it worked, compare the figures before and after, counted the same way.

Plenary: model answers

1. What is fly-tipping? Dumping rubbish illegally, somewhere it isn't allowed, like a pavement or a country lane.
2. Who counts the fly-tipping in today's figures, and who publishes them? Councils in England count it. Defra, the government department for the environment, publishes the figures every year.
3. How do you work out the rate per 1,000 people? Incidents $\div$ population $\times$ 1,000, then round to one decimal place.

4. Corran Heath had more incidents than Larkmoor but a lower rate. How can that be? Corran Heath has many more people, so its incidents are spread over more people. The rate allows for that; the count doesn't.
5. A council's number jumps one year. Does that prove there was more fly-tipping? No. The council might have started counting differently, for example counting what its own crews find as well as what the public report. Check the Reporting basis column and compare with earlier years.
6. What dumping is missing from these figures, and which councils might that flatter? The biggest dumps, which the Environment Agency deals with, and most fly-tipping on private land such as farms. Countryside councils may look better than they are.

Exit task (part 6)

Council P had 3,000 fly-tipping incidents and 150,000 people. Council Q had 2,000 incidents and 50,000 people. Which council had the higher rate per 1,000 people? Show your working. Answer. Council P: $3,000 \div 150,000 \times 1,000 = 20.0$. Council Q: $2,000 \div 50,000 \times 1,000 = 40.0$. Council Q had the higher rate, even though Council P had more incidents. A good sentence ends something like "it allows for how many people live there".