Fly-tipping detective

Teacher's notes, clue pack, case file and answers

A pile of rubbish has been dumped on a country lane. In groups of three or four, pupils check four clues and a waste transfer note against a pretend register of waste carriers. Then they decide who broke the rules. For Years 5 to 8, in one lesson of about an hour.

Learning objectives

By the end, pupils can:

- reach a conclusion from several clues, naming the clue behind each part;
- explain what fly-tipping is and why it's against the law;
- say what a householder should check before handing rubbish over, and why a number on paper isn't enough;
- in lesson two, write a short report setting out the evidence.

On the case file.
We are learning to use evidence to work out what happened. Success criteria:

- I can pick out facts from a clue and say which clue they come from.
- I can check a number against a register and spot when something doesn't match.
- I can say who broke the rules and give my evidence.

Curriculum links

English, Years 5 and 6.
Reading: “drawing inferences such as inferring characters’ feelings, thoughts and motives from their actions, and justifying inferences with evidence”. Lesson two’s report: “identifying the audience for and purpose of the writing”.

English, key stage 3.
Reading: “making inferences and referring to evidence in the text”. Writing: “writing for a wide range of purposes and audiences”.

Citizenship.
Key stage 3 (statutory): “the nature of rules and laws and the justice system, including the role of the police and the operation of courts and tribunals”. Key stage 2 (non-statutory guidance): “why and how rules and laws are made and enforced”, so it fits citizenship or PSHE (personal, social, health and economic education) time.

Geography.
Key stage 2: “types of settlement and land use”, and in the outdoor version, “use fieldwork to observe, measure record and present the human and physical features in the local area”. At key stage 3 the outdoor version supports fieldwork.

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Timings

One lesson, about an hour.

- 5 minutes: read the scene aloud and share what we are learning.
- 10 minutes: groups read the clues and pick out the facts.
- 15 minutes: groups check the register and fill in the case file.
- 10 minutes: groups decide who broke the rules, and why.
- 10 minutes: share verdicts and go through the answers.
- 7 minutes: plenary questions.
- 3 minutes: exit task.

Lesson two.
Pupils write Kit Lowe's report to the council: what was found, the evidence, who did it, and what Alex should do next time. Year 5 can write a letter to Alex instead.

Outdoor version.
Add 15 minutes to set up and 10 to walk out.

What to print

A4, black and white. Teacher's pages first, then pupil sheets, then the answers.

- You: the teacher's pages and the answers. Keep the answers back.
- Each group of three or four: the scene card, the clue cards (cut out) and the register.
- Each pupil: the two-page case file.

How to run it

1. Read the scene aloud (below). Check pupils know what fly-tipping and a waste carrier are (a person or business that takes rubbish away for others). Share the success criteria on the case file.

2. Hand out the clues. Groups sort what they know from what they only think.

3. Hand out the register without saying what to look for. Groups that check the note's number against it crack the case.

4. Take verdicts, each with two pieces of evidence. Hear the Wendle Waste answers first: the scene card sets that trap on purpose.

5. Go through the answers, then the plenary and exit task.

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Read this aloud to start.

Early on Saturday morning, someone found a pile of rubbish in the lay-by (a place to pull over at the side of the road) on Crowfoot Lane. It's a quiet country lane outside the village of Little Wendle.

In the pile there was an old sofa, a broken chest of drawers and six black bags full of junk from a loft.

Leaving rubbish on land where it isn't allowed is called fly-tipping. It's against the law. It spoils the countryside and can hurt animals, and the council has to pay to clear it up.

Kit Lowe works for the council. Kit's job is to find out who left the rubbish. Kit took photos and looked through the bags. Then Kit talked to people in the village.

Some people in the village are already blaming Wendle Waste & Clearance. It's a business in the village that takes rubbish away for people, and its white vans have green writing on the side.

A business that takes rubbish away for other people is called a waste carrier. Every waste carrier must be on a list called a register, and anyone can check it.

Your job is to read the clues, check the register and work out who broke the rules.

If a group is stuck.

Ask one at a time, gentlest first:

1. “Whose things are in the pile? Which clue tells you?”

2. “Look up the number on the waste transfer note. Whose name is next to it?”

3. “Which van took Alex's things on Friday, and does the dog walker's van match it?”

Plenary questions.

Recall first, reasoning last. Model answers are with the answers.

1. What is fly-tipping?

2. What is a waste carrier, and what list must it be on?

3. Which clue tied the rubbish to Alex Moss?

4. Why wasn't the number on the note enough?

5. Why did people blame Wendle Waste, and why were they wrong?

6. Alex didn't dump anything. Is it fair that Alex broke a rule too?

Exit task.

On a slip of paper, write two things you'd check before letting someone take your family's rubbish away.

Easier or harder.

Year 5: read the clues aloud together first. Years 7 and 8: drop the case file and have groups write their own questions.

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Outdoor version.
Set up the lay-by on the school grounds: cardboard boxes, clean bin bags stuffed with newspaper, an old cushion as the sofa, and the clues in plastic wallets. Pupils sketch and record the scene, then come in for the register.

Outdoor safety.
Use clean props only. Never use real dumped waste or visit a real fly-tip: it can hold broken glass, needles or chemicals. Pupils wear gloves. Do a risk check first, under your school's policy. Anyone who finds real dumped rubbish leaves it and tells an adult, and you can report it to the council through GOV.UK.

Paperwork.
Householders don't have to fill in a waste transfer note for their own rubbish. Alex got one anyway, which made the number easy to check. The legal duty is the check itself.

Numbers.
Everything in the pack is made up. Pretend numbers start “PCR”. Real English ones start “CB”, so a search finds no real business. Use the pack's register. People say “waste carrier's licence”; the law says registration.

Wales, Scotland and Northern Ireland

Wales.
Same Act, sections and code of practice as England. Carriers register with Natural Resources Wales. The section 34ZA fixed penalty is England only.

Scotland.
Scotland's own versions of sections 33 and 34 apply: fly-tipping under section 33, and the householder's duty in section 34(2) to take reasonable steps to hand household waste only to someone allowed to take it. Carriers register with SEPA, the Scottish Environment Protection Agency.

Northern Ireland.
The Waste and Contaminated Land (Northern Ireland) Order 1997: fly-tipping under Article 4(1)(a), and the householder's duty in Article 5(2A), worded as England's. Carriers register with the Northern Ireland Environment Agency, part of DAERA (the Department of Agriculture, Environment and Rural Affairs).

Each nation has its own curriculum. The lesson fits their reading, writing and citizenship work, but we haven't mapped it line by line.

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The scene

Early on Saturday morning, someone found a pile of rubbish in the lay-by (a place to pull over at the side of the road) on Crowfoot Lane. It's a quiet country lane outside the village of Little Wendle.

In the pile there was an old sofa, a broken chest of drawers and six black bags full of junk from a loft.

Leaving rubbish on land where it isn't allowed is called fly-tipping. It's against the law. It spoils the countryside and can hurt animals, and the council has to pay to clear it up.

Kit Lowe works for the council. Kit's job is to find out who left the rubbish. Kit took photos and looked through the bags. Then Kit talked to people in the village.

Some people in the village are already blaming Wendle Waste & Clearance. It's a business in the village that takes rubbish away for people, and its white vans have green writing on the side.

A business that takes rubbish away for other people is called a waste carrier. Every waste carrier must be on a list called a register, and anyone can check it.

Your job is to read the clues, check the register and work out who broke the rules.

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Cut along the dashed lines. One set for each group.

Clue 1: A receipt in a black bag

Kit found this screwed up in one of the black bags.

HOLLY BANK FURNITURE

Delivered to: Alex Moss, 4 Mill Row, Little Wendle

1 new sofa, grey. Delivered on Thursday.

Paid by card.

Please note: we do not take away old furniture.

Clue 2: A waste transfer note

A waste transfer note says what rubbish was taken, and who took it. Alex Moss gave Kit this one.

WASTE TRANSFER NOTE

Company: Tidy Tip Clearances

Carrier registration number: PCR-4417

Collected from: 4 Mill Row, Little Wendle

Rubbish: 1 old sofa, 1 chest of drawers, 6 bags of loft junk

When: Friday, 5pm

Paid: cash

Phone: 07700 900461

Signed: Dean

Clue 3: What the dog walker saw

Ellis Fry walks a dog called Biscuit along Crowfoot Lane every morning.

“It was about half past six on Saturday morning. A white van pulled into the lay-by. Two men got out and threw things into the hedge. One of them was a sofa.

The van had green writing on the side. I only saw part of one word. It said CLEAR. There was a ladder on the roof. They drove off fast, so I didn't see the number plate.”

Clue 4: What the neighbour saw

Priya Lal lives at 6 Mill Row, next door to Alex Moss.

“On Friday afternoon, a van parked outside number 4. It was white, with a ladder on the roof. The green writing on the side said TIDY TIP CLEARANCES.

Two men carried out a sofa, a chest of drawers and lots of black bags. There was a phone number on the van, but no address.”

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The Pretend Carrier Register

Every business allowed to take other people's rubbish away in the Little Wendle area is on this list. If a business isn't on it, it isn't allowed to carry waste.

This register is made up for this lesson. In England, the real register is kept by the Environment Agency.

Number	Business	Town	What they do
PCR-1170	Tidy Tops Tree Surgery	Little Wendle	Cutting trees and taking the branches away
PCR-2093	Brook End Builders	Saltmere	Building work and taking rubble away
PCR-3358	Hedgerow Recycling	Upper Wendle	Collecting paper, card and bottles
PCR-4417	Wendle Waste & Clearance	Little Wendle	Clearing houses and taking old furniture away
PCR-4471	Mill Farm Skips	Upper Wendle	Skips to hire
PCR-5602	Fox and Daughters Removals	Saltmere	Moving house and taking unwanted things away
PCR-6140	Green Lane Metal Recycling	Upper Wendle	Collecting old metal, bikes and cookers

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Case file

We are learning to use evidence to work out what happened.

- I can pick out facts from a clue and say which clue they come from.
- I can check a number against a register and spot when something doesn't match.
- I can say who broke the rules and give my evidence.

Detective's name

Read every clue, then check the register. Write your answers in full sentences.

1. What was dumped, and where was it dumped?

2. Whose things were in the pile? Which clue tells you, and how?

3. Who took the things away from 4 Mill Row, and when? Name two clues that tell you.

4. Find the carrier registration number on the waste transfer note. Look it up on the register. Which business is that number for?

5. Is Tidy Tip Clearances on the register? What does that tell you?

6. Ellis Fry saw the word CLEAR on the van. Which two businesses could that fit? Which clues tell them apart?

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7. Who dumped the rubbish on Crowfoot Lane? Give your evidence.

8. Did Alex Moss break a rule too? What should Alex have done before handing the rubbish over?

9. Do people in the village owe Wendle Waste & Clearance an apology? Why?

My verdict

The person or business who dumped the rubbish was

Someone else who broke a rule was

My best piece of evidence is

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Answers: for the teacher

Verdict.
Tidy Tip Clearances dumped the rubbish. Alex Moss broke a rule too, by not checking. Wendle Waste & Clearance is innocent: PCR-4417 on the note is its number, copied by Tidy Tip.

The law.
Fly-tipping is an offence under section 33(1)(a) of the Environmental Protection Act 1990. In the Crown Court it carries an unlimited fine or up to five years in prison (section 33(8)). Under section 34(2A), a householder must take all reasonable measures to hand household waste only to someone allowed to take it, and the code of practice says to check the carrier is registered. Failing to is an offence (section 34(6)). In England the council can give a fixed penalty notice instead (a fine paid instead of going to court, section 34ZA).

Case file answers:

1. An old sofa, a broken chest of drawers and six bags of loft junk, in the lay-by on Crowfoot Lane (the scene).

2. Alex Moss's, from 4 Mill Row. The receipt in a bag has Alex's name and address, and the shop doesn't take old furniture away (clue 1).

3. Tidy Tip Clearances, at about 5pm on Friday. The note lists the same things (clue 2), and Priya Lal saw a Tidy Tip van loading them (clue 4).

4. Wendle Waste & Clearance. Watch for pupils who pick PCR-4471 (Mill Farm Skips), which swaps the last two digits.

5. No, so Tidy Tip isn't allowed to carry other people's rubbish. It wrote down another business's number. Tidy Tops Tree Surgery is a different business: read the whole name.

6. Wendle Waste & Clearance and Tidy Tip Clearances both have green writing and CLEAR in the name. The rubbish tells them apart: it's Alex's (clue 1), and Alex's things went into the Tidy Tip van (clues 2 and 4). The ladder fits too (clues 3 and 4).

7. Tidy Tip Clearances (Dean and another man). They collected Alex's things on Friday, a van like theirs dumped a sofa in the lay-by on Saturday, and Alex's receipt was in the pile.

8. Yes. A householder must take reasonable steps to give rubbish only to someone allowed to take it. Alex had the number but didn't check it, and the register would have shown it belonged to another business. Paying cash to someone with only a first name and a mobile number was a warning sign too.

9. Yes. People blamed Wendle Waste because of its vans, but it did nothing wrong. Someone else used its number.

Plenary model answers:

1. What is fly-tipping?
Leaving rubbish on land where it isn't allowed.

2. What is a waste carrier, and what list must it be on?
A person or business that takes rubbish away for others. It must be on the register.

3. Which clue tied the rubbish to Alex Moss?
The furniture receipt in a black bag, with Alex's name and address.

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4. Why wasn't the number on the note enough?
Anyone can write a number down. PCR-4417 belongs to Wendle Waste, and Tidy Tip isn't registered. Only the register shows whose number it is.

5. Why did people blame Wendle Waste, and why were they wrong?
Its vans look similar and CLEAR is in its name. But Alex's things went into the Tidy Tip van.

6. Alex didn't dump anything. Is it fair that Alex broke a rule too?
Open for debate. A strong answer: checking first stops rubbish reaching people who dump it.

Exit task, a good answer:
That the business is on the register, under the same name and number it gives you. A written note and a business address are good signs. Only a first name and a mobile number is a warning sign.

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