

EduTrend Contents

W4C · ENVIRONMENTAL SCIENCE · PRIMARY

Litter Detectives

What litter is in our playground, and where does it go?

Ages 7–10 | Level: Foundation | 60 minutes | Groups of 4 · up to 30 | Activity 01

Inside: activity at a glance · step-by-step session plan · facilitator notes · 3 pupil worksheets · assessment checklist

ACTIVITY 01 · AT A GLANCE

Litter Detectives

Pupils investigate litter in the school grounds. Wearing gloves and using litter pickers, they collect and sort litter by material, tally and graph what they find, and discuss which materials rot and which do not. They then plan one action to reduce litter and check its effect a week later.

Learning outcomes

By the end of the session pupils can:

- collect and sort litter safely by material;
- record data in a tally chart and bar chart;
- explain which materials break down and which do not;
- plan an action and check whether it worked.

KEY WORDS

litter · material · plastic · biodegradable · recycle · tally · survey

CURRICULUM LINKS

Science: materials, living things and habitats. Maths: tallies and bar charts. Citizenship: caring for the environment.

1	2	3	4	5	6
QUESTION	**INVESTIGATE**	**MEASURE**	**ANALYSE**	**ACT**	**REVIEW**
What is the issue?	Collect evidence	Count and record	Find patterns	Plan a solution	Did it work?

Materials (per group)

- Gloves and litter pickers
- Bags for each material: plastic, paper, metal, glass, food, other
- Tally sheet and clipboard
- Scales (optional)
- Worksheets 1, 2 and 3

Before the session

- Walk the survey area to check for hazards.
- Agree rules: never touch glass, needles or anything sharp; tell an adult.
- Divide the grounds into zones.
- Prepare bags and gloves.

SAFETY

Gloves at all times. Never pick up glass, needles, sharp metal or unknown objects: tell an adult. Wash hands afterwards.

ACTIVITY 01 · SESSION PLAN

Step by step

Timings are for 60 minutes. Repeat the survey one week later to see if the action worked.

Time	What happens	Say or ask
0–5 min Hook	Show a photo of litter on a beach. Where did it come from?	*"Where does litter end up?"*
5–10 min Rules	Go through safety rules and zones.	*"What must you never touch?"*
10–30 min Survey	Groups collect and sort litter in their zone.	*"Which material is most common?"*
30–40 min Tally and graph	Groups tally items and draw a bar chart.	*"What does the graph show?"*
40–50 min Discuss	Which items would rot? Which would last for years?	*"What happens to plastic in a river?"*
50–60 min Plan	Groups choose one action, such as bin signs or a lunchbox pledge.	*"How will we know if it worked?"*

CHALLENGE CARD (print or copy onto the board)

Find the most common type of litter in your zone and plan one action to reduce it. Repeat the survey next week to check.

ACTIVITY 01 · FACILITATOR NOTES

The science in brief

Litter is waste in the wrong place. Food and paper are biodegradable: decomposers such as bacteria and fungi break them down over weeks or months. Plastics, metals and glass are not broken down by living things and can last for decades or much longer.

Plastic litter breaks into smaller and smaller pieces called microplastics, which can be eaten by animals in soil, rivers and the sea. Reducing, reusing and recycling materials keeps them out of the environment.

Common ideas to listen for

- “Plastic rots away.” Most plastics break into smaller pieces but do not decompose.
- “Biodegradable means it disappears quickly.” It still takes time and the right conditions.
- “One piece of litter doesn’t matter.” Small amounts add up across many people.

Adapting the activity

Support

Sort into three groups: plastic, paper and other.

Stretch

Weigh the litter and calculate how much might be dropped in a school year.

WORKSHEET 1

Litter tally

Name: _____ Class: _____ Date: _____

Make a tally mark for each item.

Tally

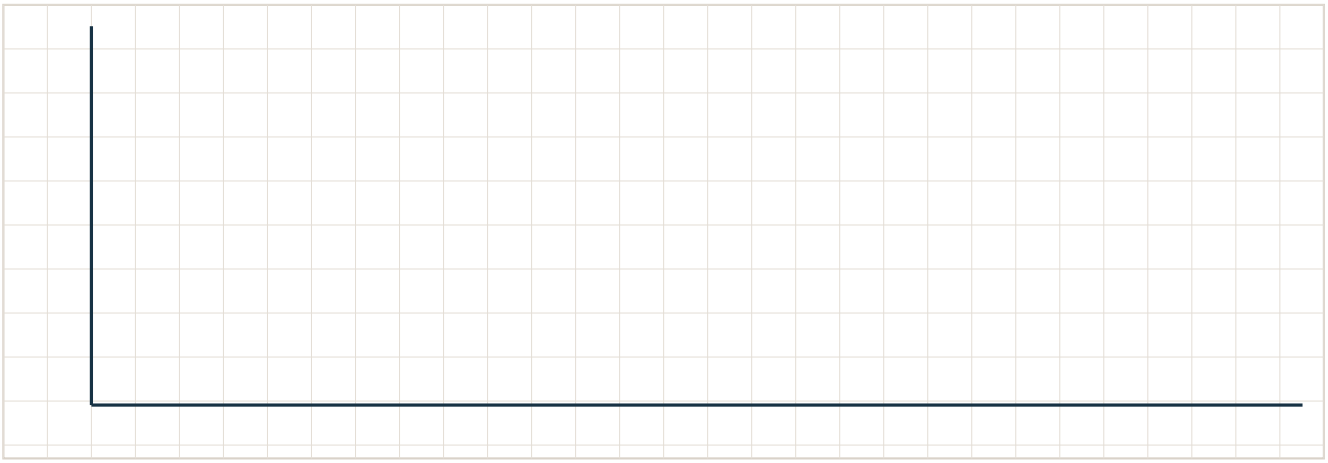
Material	Tally	Total
Plastic		
Paper and card		
Metal		
Food		
Other		

WORKSHEET 2

Litter graph

Draw a bar chart of your totals.

Bar chart



y-axis: number of items

x-axis: material

Which litter would still be here in 10 years? Why?

WORKSHEET 3

Our action plan

Plan one change and check it next week.

Our action

Next week's check

	This week	Next week
Total items		
Most common type		

FOR THE TEACHER

Assessment checklist

Use during the session. One sheet covers up to eight pupils; copy as needed.

Pupil	Works safely	Records accurately	Plans and reviews an action

Suggested codes: W = working towards · E = expected · G = greater depth

ABOUT THIS ACTIVITY

Litter Detectives is a sample activity from the EduTrend Contents W4C Environmental Science programme (primary, level: foundation). Every activity in the programme follows the same format: a practical challenge, a clear session plan, facilitator notes and ready-to-print worksheets, so that teachers, club leaders and parents can run it without extra preparation.

Full 15-, 20- and 32-week programmes are available from EduStore at edutrend.org.

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