

Measure, present and reflect

Lesson at a glance

Open with hands-up clues for whether the class action helped living things. Groups name one re-measure and one fair-comparison control, then re-survey the action area with the same hoop or string square and audit method. Back indoors, enter a few before/after tallies on the data-recorder interactive, read the bar chart, and write comparison, evidence claim and next step in the Investigation Journal. Close with paired then whole-class shares and a short talk linking their cycle to the All-Ireland Pollinator Plan.

Learning objectives

- Re-survey or monitor the action area and compare with the original audit
- Present impact evidence and next steps to the class
- Reflect on how Science can help solve biodiversity problems locally and nationally

Before the bell – prep

Day before: print one double-sided Irish minibeast/plant ID sheet per group; gather hoops or string squares, magnifiers, clipboards. Have each group's original audit journal pages ready. Set one supervised outdoor zone and a return signal. Open the data-recorder interactive on the IWB before the compare step.

Materials

Item	Qty	Per	Source	Low-cost substitute
Investigation Journal pages from the biodiversity audit earlier in this project, plus clear space (or the provided results page) for today's after-counts, comparison and next step	1	pupil	classroom	a copy of each group's audit tallies on plain paper plus a blank page for today's after-counts and conclusion
hoop or string quadrat	1	group	school kit	four metre sticks or jump ropes laid as a square
magnifying glass	1	group	school kit	share a class set of two or three magnifiers between groups
minibeast and plant ID sheet	1	group	provided printable	one shared class ID poster on the clipboard rota
clipboard	1	group	classroom	stiff cardboard and a bulldog clip
pencil	1	pupil	classroom	—

Safety watch-point

One supervised outdoor zone only. Wash hands after soil and minibeasts; return animals where found; mind nettles and brambles; no tasting plants; stay inside the agreed boundary.

Teaching moves

- **Getting Started:** Keep it light: three or four hands-up clues only — more bees, more plant kinds, seed still dry. Point briefly at the action the class built earlier in this project. Do not hand out hoops or audit sheets yet; do not judge whether it worked.
- **How will we know if it helped?:** Name evidence of impact, before-and-after comparison and monitoring once with a class example, then model the wonder–predict–same-method cycle in about 45 seconds. Groups must leave naming (1) what they will re-count and (2) what stays the same. Use a rapid two-finger stand-and-show; spot-check two or three groups; thumbs-up sweep — about two minutes total before you go outside.
- **Re-survey the action area:** One adult: keep every group inside one agreed strip or two neighbouring spots within calling distance — never unsupervised remote corners. Aim for 12–14 minutes of counting. Circulate asking ‘same way as the audit?’ and ‘different kind or another of the same?’ If numbers fall or stay flat, say warmly that is still useful evidence. Return living things; wash hands on re-entry.
- **Compare before and after:** On the data-recorder, enter about four rows as separate before/after bars from real group tallies — one bar per row, not side-by-side doubles. Spend ~4 minutes reading which bars grew, shrank or stayed flat; leave ~5 minutes for journal writing. Leave the sentence stems on the board: Before we had ____; after _____. The numbers show _____. Next we would ____ because ____.
- **Present our findings:** Paired swap first (one minute each way, visible timer), then three groups share with the class. Revoice clear before-and-after numbers, honest flat results, and next steps that follow the evidence. After each share ask listeners: ‘What evidence did that group use?’
- **Looking further:** Protect two cold-call prompts even if outdoor return ran long: how checking actions matters beyond school; one scientist habit to keep. Tidy under or after the talk — do not drop the discuss beat. Optional homework drops first if late.

What it should show

Results vary by action and season: more plant or minibeast kinds, more pollinator visits, or drier accessible seed are possible rises; flat or lower counts are equally valid. Treat surprise drops as data (weather, time of day, action still settling), not failure. A group with a huge jump after changing hoop size or spot has broken the fair comparison — re-state same place, same method.

**Misconceptions & interventions**

- **If we like our action or worked hard on it, it must have helped.** — Point at the before/after bars: 'Impact is what the numbers show, not how we feel about the build.' Ask what a flat result would still teach us.
- **We can use a bigger hoop or a different corner today because it is easier.** — Hold up the audit notes and today's kit: 'If the method changes, we cannot tell whether living things changed or our measuring did.' Re-agree spot, hoop size and time window before they count.
- **Lower or the same numbers mean we failed.** — Revoice warmly: unexpected results are still evidence. Prompt possible real reasons (season, weather, action still settling) and a next step that follows from the data.

Differentiation

Emerging	Developing	Proficient
• Pair with the teacher table: pre-write their audit before-number and the one thing that must stay the same; they tally after-counts only. • Offer the board stems aloud again at journal time so comparison and next step are fill-the-blank talk first.	• Prompt a second careful look: 'Is that a new kind or another of the same?' before they finalise the after tally. • Ask why their next step follows from today's numbers, not from hope alone.	• Stretch: critique whether one re-survey is enough and propose when to monitor again (e.g. next month, same method). • Link their evidence claim lightly to how the All-Ireland Pollinator Plan checks actions, not only launches them.

Cross-curricular hook

Tie to Maths Data — before/after bars on the data-recorder and reading which values rose, fell or stayed flat.

