living-things

Classifying with our own criteria

Lesson at a glance

Open with seven Irish wildlife photo cards and ask what features could sort them into clear groups. Teach classify and criteria with a plant/animal split, then model a branching key on the sorting-tree interactive using five minibeasts and clean leg questions. Groups choose criteria, sort their seven cards, and write a multi-step yes/no key on the SortingGrid Investigation Journal page. They swap keys for a mystery-specimen follow, rewrite one weak question, and close by tracing a frog path on the board key.

Learning objectives

- Classify Irish plants and animals using self-chosen criteria and justify the groupings
- Build a multi-step branching key that another group can follow
- Use a key to identify a mystery specimen and refine questions that do not split the set cleanly

Before the bell — prep

Print or gather one full set of seven wildlife photo cards per group (badger, heron, earthworm, bee, fern, oak, frog) the day before; check every set is complete. Open the sorting-tree interactive in explore mode for the model and challenge mode for the close. Have SortingGrid Investigation Journal pages ready.

Materials

Item	Qty	Per	Source	Low-cost substitute
Irish wildlife photo cards (badger, heron, earthworm, bee, fern, oak, frog)	1	group	school kit	simple line drawings or magazine cut-outs of the same seven living things, labelled on the back
A4 plain or ruled paper (master branching-key sheet)	1	group	classroom	any spare ruled page or the back of scrap paper large enough for both paths
pencils	1	pupil	classroom	—

Safety watch-point

None beyond normal classroom care. No living specimens, soil or outdoor work in this lesson.

Lesson 4

Teaching moves

- **What does classify mean?:** Put only classify and criteria on the board. Do the plant/animal split live with the seven cards, then name criteria as the feature just used. Invite one second-feature idea. Push vague offers like 'big' or 'nice' toward features you can check by looking.
- **Model a branching key:** Drive the sorting-tree in explore mode with worm, ladybird, spider, snail and ant. Ask the class which first question is better — legs or colourful — then drag cards on Does it have legs? and Does it have eight legs?. After the clean split, name the path a branching key. Keep three bins only; do not invent a desk task for watchers.
- **Choose criteria and first groups:** One card set per group. Criteria stay inside the four board families. If diet is picked first, ask where oak and fern go and steer to plant or animal. Badger and earthworm stall on diet forks — switch that pile to legs, habitat or movement. Look for every card having a home and a one-sentence justification.
- **Build our multi-step key:** Leave the plant/tree mini-example on the IWB. Scaffold in three beats: first split on cards only, one full path written to a named end, then remaining branches. One master SortingGrid per group for the swap. Send weak questions (big, nice, weird) back for rewrite. Usable floor: every written path ends with one name and has at least two steps.
- **Mystery specimen swap:** Gate incomplete keys before pairing — finish one named path first. Put roles on the board: Group A hides and answers yes/no only; Group B only reads the key and names. Protect one solid follow-check-rewrite; run the reverse turn only if both keys already name every path. Keep refine to one improved question per key.
- **Board key check:** Run sorting-tree challenge mode: spider → 8 legs, worm → no legs, ladybird → 6 legs. Then bridge to the Irish set and chorally trace the frog path: plant? no; legs? yes; water? yes; bird? no → frog. Ask which question decided each placement.

What it should show

Strong keys use checkable yes/no splits (plant/animal, legs, habitat) and end each path with one named living thing. Followers should name the hidden card without guessing. Common snags: diet first leaves oak/fern stuck; badger/earthworm fail a plants-vs-animals diet fork; vague size/colour questions cause arguments — rewrite to a look-check feature.

Misconceptions & interventions

- **Pupils pick vague criteria like 'Is it big?' or 'Is it nice?' and argue about the answer.** — Hold up two cards and ask 'Big compared with what?' Send them back to a feature you can check by looking: legs or no legs, plant or animal, lives mainly in or beside water.
- **A group starts with diet and has nowhere to put oak and fern, or gets stuck on badger and earthworm.** — Ask 'Where do oak and fern go on that menu?' Steer to plant or animal first. Inside the animal pile, swap diet for legs, habitat or movement when omnivores or detritivores stall.
- **Pupils think a branching key is finished when cards sit in loose piles, not when each path names one living thing.** — Point to the board mini-example ending at oak, fern or earthworm. Ask 'If I have never seen your cards, can I still find the right name?' Push every written path to one named end before the swap.

Differentiation

Emerging	Developing	Proficient
• Offer only two starter criteria (plant or animal; legs or no legs) and stay at the table for the first full path to one named end. • If the master key is incomplete at swap time, let them follow a ready neighbour's key while you coach one rewrite.	• Aim for a complete first-question split plus two or three fully named paths so the swap still works. • After one successful follow, rewrite the one question that was hardest to answer by looking.	• Finish all seven named ends and add a third or fourth step, noting which question split the set cleanest. • Re-sort the same seven with a different first criterion and compare which key another group would find easier to follow.

Cross-curricular hook

Links to Maths logic and sorting — each yes/no fork is a decision tree pupils can read as ordered steps.