

living-things

Life Cycles and the Irish Year

Lesson at a glance

Open by asking why a robin lays eggs in spring, not frosty January, steering guesses toward food, warmth and daylight. On the IWB, build the frog loop (spawn, tadpole, froglet, adult) and model the season reasoning aloud once. Groups then argue the butterfly and oak stage cards onto a four-season strip by asking what each stage needs, sliding cards to bridge two seasons where honest. Pupils capture their group's decisions on the Investigation Journal page, then a science-talk predicts when hedgehogs raise young.

Learning objectives

- Sequence the life-cycle stages of an Irish animal and a plant (frog, butterfly, oak)
- Link life-cycle stages to seasons in the Irish year by arguing from what each stage needs
- Explain why a life cycle is drawn as a loop rather than a straight line

Before the bell – prep

Print one set of life-cycle stage cards (frog, butterfly, oak — about ten cards) and one four-season strip per group. Have the IWB frog-loop interactive queued and tested. Journal pages stay in the drawer until step 5. No live specimens needed — the cards carry the whole lesson, so this is a quick photocopy-and-cut prep the day before.

Materials

Item	Qty	Per	Source	Low-cost substitute
life-cycle stage cards (frog spawn, tadpole, froglet, adult frog; caterpillar, chrysalis, butterfly; acorn, seedling, grown oak)	1	group	provided printable	sketch the stages on index cards
four-season strip (spring, summer, autumn, winter)	1	group	provided printable	fold a sheet of A4 into four labelled columns

Safety watch-point

No hazards this lesson: card-and-discussion work only. No live minibeasts, no outdoor fieldwork, no tools.

**Teaching moves**

- **Settle the Frog Loop:** Run the frog cards on the IWB and model the reasoning aloud once, in full: 'Spawn needs unfrozen pond water, so early spring — and the arrow loops back because the adult lays new spawn.' Pupils need this pattern before they argue the butterfly and oak themselves. Settle the loop on the frog only.
- **Argue Each Stage into a Season:** Keep this beat spoken and hands-on — do NOT hand out Journal pages yet. Move between groups asking 'what does that stage need? which season supplies it?' Watch for groups placing from memory rather than need, and re-voice the need question. Tell groups a card may bridge two columns (the resting chrysalis, the ongoing oak) if they can say why.
- **Record on Your Journal Page:** Make clear on the IWB this is the first time they write — capturing the outcome, not repeating the debate. Ask each pupil to record only the stages their own group placed, aiming for a few well-reasoned 'needs ... so ... season' rows. There are about ten cards, too many for twelve minutes, so send the rest home rather than rushing.
- **Make Sense Together:** Pose the hedgehog: from its needs alone — mild weather, plenty of insects and slugs — when are its young born? Late spring or summer. Accept any reasoned answer; the reasoning is the point. Close by returning to the loop: the adult makes the next generation, so it starts again.

What it should show

Expect: frog spawn in early spring, caterpillar in spring/early summer (soft new leaves), butterfly adult in summer (nectar), acorn falling in autumn, oak seedling sprouting in spring. The chrysalis honestly bridges seasons — accept a card that spans two columns with a good reason. A group placing every card in one tidy season is likely arguing from memory, not need; ask them what that stage actually needs and let them re-place.

Misconceptions & interventions

- **Pupils think a life cycle is a straight line that finishes at the adult.** — On the IWB frog loop, trace the arrow from adult frog back to the spawn with a finger — the adult lays new spawn, so it starts over. Have pupils say why the ring never truly ends.
- **Pupils place a stage by what they've been told, e.g. 'butterflies come in summer', not by what the stage needs.** — At the season strip, ask 'what does the caterpillar need to eat?' Once they say soft new leaves, ask which Irish season grows those — let the season fall out of the need.
- **Pupils insist every stage sits neatly in one single season.** — Take the chrysalis card: it's a resting, sheltered stage that can wait out the cold. Show them they may slide it to bridge two columns and explain why, rather than forcing one season.



Differentiation

Emerging	Developing	Proficient
• Have the group place the frog cards first — that loop is already settled on screen, so they start from a worked example. • Offer a simpler Journal row: just the stage and its season, with the reason spoken aloud to you.	• Ask the group to explain why the acorn falls in autumn but the seedling needs spring — two seasons, one plant.	• Have the group argue the chrysalis and justify why it bridges seasons rather than sitting in one. • Ask them to predict, from needs alone, a season for a fourth animal you name in the science-talk.

Cross-curricular hook

Link to Geography — the Irish seasons and what native hedgerows and ponds offer at each time of year.