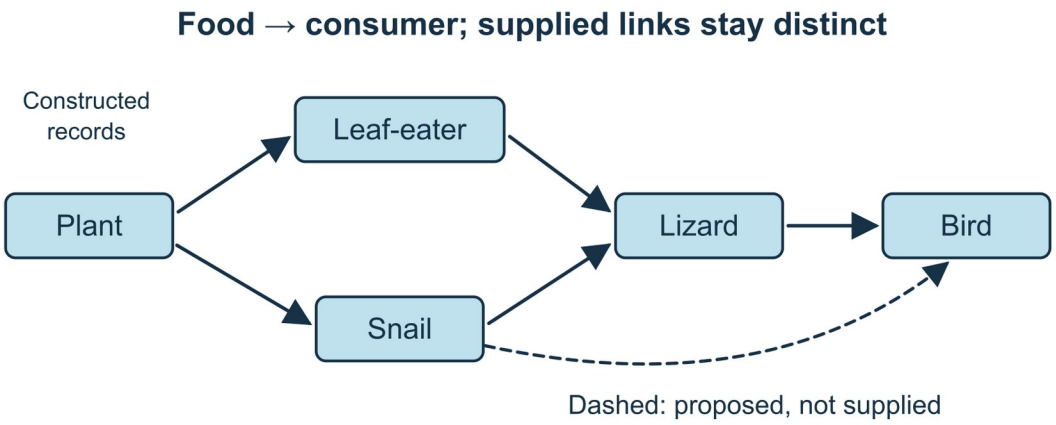
A food web with labelled assumptions

How do arrows and evidence change the meaning of a simple food web?

Build a food-web diagram from supplied fictional feeding records and keep a proposed link different from a reported one.

Make | 15–25 minutes, or one chain | The supplied example, read or heard, Optional scrap paper and a pen or pencil

Start here Use these invented records: Plant feeds Leaf-eater and Snail; Leaf-eater and Snail feed Lizard; Lizard feeds Bird. Arrows point from food to consumer.



One arrow rule and two evidence states

1 Write the arrow key

An arrow A → B means material and energy from A can reach B when B consumes A. It does not mean A actively helps or chases B.

2 Draw five supplied links

Draw Plant → Leaf-eater, Plant → Snail, Leaf-eater → Lizard, Snail → Lizard and Lizard → Bird. Keep every direction consistent with the key.

3 Label a new question

Someone proposes that Bird also consumes Snail. Draw that optional idea as a dashed link labelled ‘not supplied’, rather than adding it to the five solid recorded links.

4 Explain what the model leaves open

Name a missing detail such as quantities, seasonal change or other foods. The web does not tell you exactly how any population would change.

Constructed food web five reported links

The feeding statements are invented model records, not observations of real animals or universal species diets.

• Solid links: Plant → Leaf-eater; Plant → Snail; Leaf-eater → Lizard; Snail → Lizard; Lizard → Bird.

• Each arrow runs from the consumed resource to its consumer.

• Snail → Bird is a separate proposed link, shown dashed and marked not supplied.

What this example can show The model omits amounts and many relationships. It does not establish actual diets, complete energy budgets or a definite population outcome.

A different way

Follow only Plant → Snail → Lizard, or read the links aloud. No animals, food, samples or outdoor visit are required.

If you want to go further

Remove one supplied link in a newly labelled model. Describe which route disappears without asserting a measured population change.

Something to notice

Could someone distinguish a supplied relationship from a proposed one in my drawing?

Read or explore more

Horizon topic Food Webs

https://launchhorizonhq.com/learn/food-webs/

Horizon topic Habitats Niches

https://launchhorizonhq.com/learn/habitats-niches/

Horizon topic Ecology

https://launchhorizonhq.com/learn/ecology/

OpenStax, Rice University 46.2 Energy Flow through Ecosystems

https://openstax.org/books/biology-2e/pages/46-2-energy-flow-through-ecosystems

OpenStax, Rice University 46.1 Ecology of Ecosystems

https://openstax.org/books/biology-2e/pages/46-1-ecology-of-ecosystems

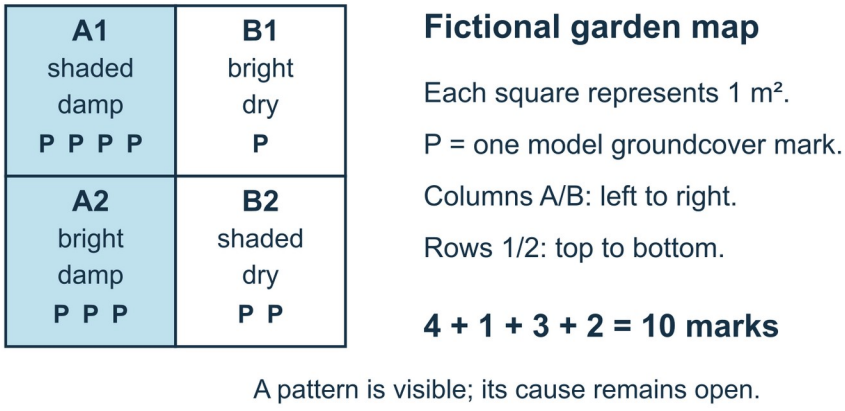
Map a fictional microhabitat

Which small differences would be useful to record before making an explanation?

Read a complete fictional map with equal sampling squares, then separate a pattern in the record from its cause.

Investigate | 15-25 minutes, or two squares | The supplied example, read or heard, Optional scrap paper and a pen or pencil

Start here Use a 2-by-2 map: top row A1, B1; bottom row A2, B2. Each square represents 1 m² of a fictional garden, with counts of a model groundcover P.



A complete key makes a small map useful

1 Read the full key

A1 is shaded, damp, 4 P; B1 bright, dry, 1 P; A2 bright, damp, 3 P; B2 shaded, dry, 2 P. Counts, light descriptions and moisture labels are supplied model data.

2 Compare like areas

All four squares represent the same area and use the same counting rule. Add the counts if wanted: 4+1+3+2 = 10 P marks across the model.

3 Describe one pattern

The two damp squares contain 4 and 3 marks; the two dry squares 1 and 2. Describe that contrast without claiming dampness caused it.

4 Plan a better question

Ask what repeated records, dates or other conditions would help examine the pattern. You can keep this a plan without going outside or identifying a real plant.

Invented map four equal squares

Columns A and B run left to right; rows 1 and 2 run top to bottom. P means one model groundcover mark, not a verified species.

• Top: A1 shaded/damp/4 P; B1 bright/dry/1 P.

• Bottom: A2 bright/damp/3 P; B2 shaded/dry/2 P.

• There are 10 P marks altogether; the two damp squares have higher counts in this supplied model.

What this example can show Four invented squares do not prove a habitat preference or causal effect. Different areas, counting rules or unrecorded conditions would affect a real comparison.

A different way

Compare A1 and B1 only, point to the counts or have the map described. No quadrat construction, garden access or specimens are required.

If you want to go further

Imagine that B1 represents 2 m² instead of 1. Explain why raw counts would no longer compare equal areas without adjustment.

Something to notice

Did I keep the area and counting rule attached to the numbers?

Read or explore more

Horizon topic Microhabitat Maps

https://launchhorizonhq.com/learn/microhabitat-maps/

Horizon topic Quadrat Sampling

https://launchhorizonhq.com/learn/quadrat-sampling/

Horizon topic Ecology

https://launchhorizonhq.com/learn/ecology/

Field of Mars Environmental Education Centre, NSW Department of Education Schoolyard safari learning resource

https://fieldofmar-e.schools.nsw.gov.au/learning-resources/primary-learning-resources/schoolyard-safari

Science Learning Hub, University of Waikato Making and using a quadrat

https://www.sciencelearn.org.nz/resources/2318-making-and-using-a-quadrat

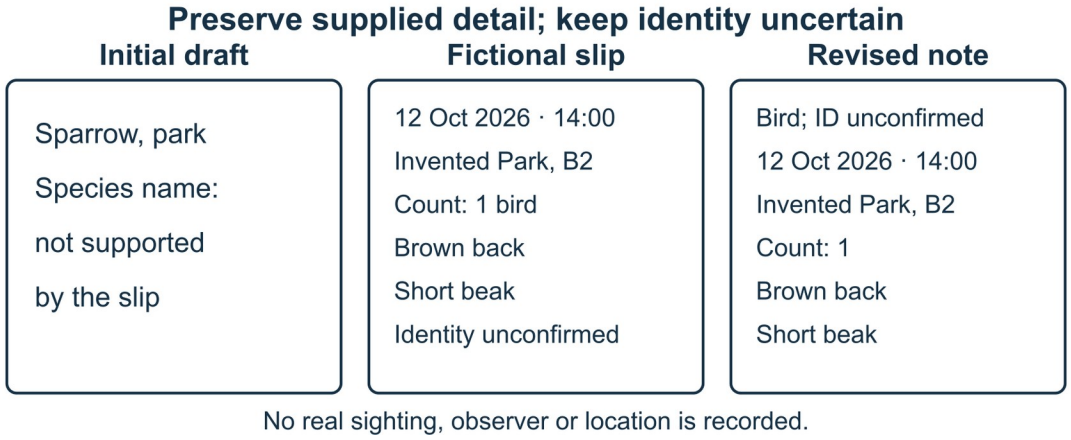
What makes a useful species record

Which details turn an invented sighting note into a clearer record without guessing an identity?

Improve a fictional sighting note using only a supplied field slip, retaining an uncertain identity rather than inventing detail.

Investigate | 10–20 minutes, or one correction | The supplied example, read or heard, Optional scrap paper and a pen or pencil

Start here Compare a draft note ‘Sparrow, park’ with a supplied fictional slip: 12 October 2026, 14:00, Invented Park, B2, one bird, brown back, short beak, no identification confirmed.



Improve the record without guessing the species

1 Separate source from guess

The slip supports an observation of one bird with two described features. It does not support the draft’s species name sparrow. Mark that identity as unconfirmed.

2 Carry over supplied details

Make a clearer note with the supplied date, time, fictional location, count and visible features. Do not add a photograph, observer name or exact real-world coordinates.

3 Keep provenance and uncertainty

Label the new note as transcribed from the supplied fictional slip. Use bird, identity unconfirmed, so the correction does not silently become a new confident identification.

4 Choose a useful next check

Suggest checking the original record or suitable identification information. Do not submit the exercise to a real species database or fill missing details from imagination.

Constructed records correct without inventing

The original slip and incomplete draft are both fictional practice material. No real bird sighting or person is recorded.

• Slip: 12 October 2026 at 14:00; Invented Park, B2; count 1.

• Features: brown back, short beak; identity unconfirmed.

• Revised note keeps those details and replaces the unsupported sparrow label with bird, identity unconfirmed.

What this example can show Two visible features do not identify a species. A clearer record preserves useful detail and uncertainty; it does not manufacture missing evidence.

A different way

Correct only the species label, or compare the notes aloud. No photograph, online account, wildlife contact or real location is needed.

If you want to go further

Remove the time from a copy of the source slip. Show how the revised record should mark it unknown rather than retain an unsupported 14:00.

Something to notice

Did my revision improve clarity without increasing unsupported certainty?

Read or explore more

Horizon topic Species Records

https://launchhorizonhq.com/learn/species-records/

Horizon topic Biodiversity Conservation

https://launchhorizonhq.com/learn/biodiversity-conservation/

Horizon topic Knowledge Evidence

https://launchhorizonhq.com/learn/knowledge-evidence/

Atlas of Living Australia Flagging an issue with a record

https://support.ala.org.au/support/solutions/articles/6000262125-flagging-an-issue-with-a-record

Science Learning Hub, University of Waikato Making and using a quadrat

https://www.sciencelearn.org.nz/resources/2318-making-and-using-a-quadrat