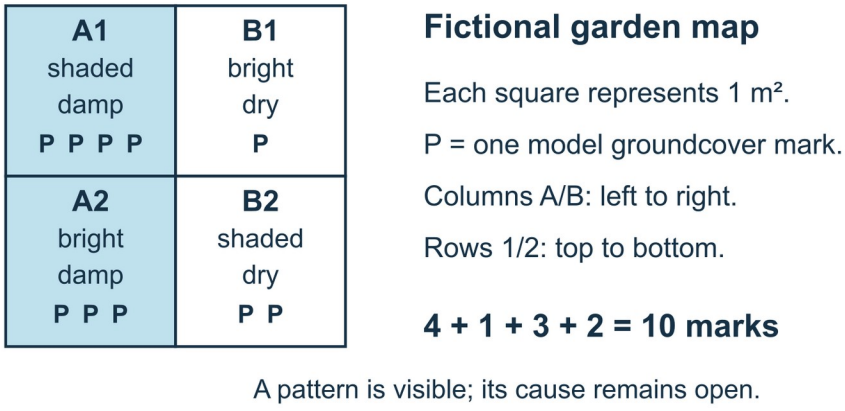
Map a fictional microhabitat

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