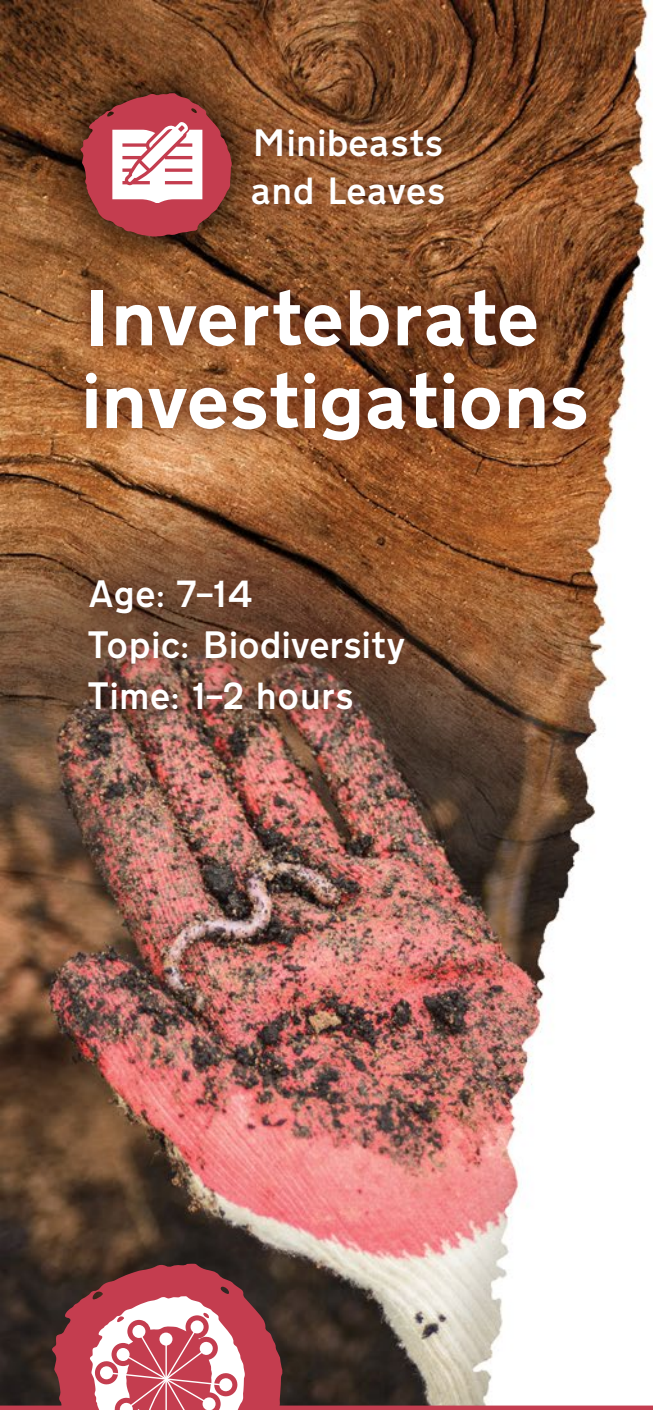

Minibeasts and Leaves

Invertebrate investigations

Age: 7–14
Topic: Biodiversity
Time: 1–2 hours

What should learners already know?

- Organisms are adapted to their habitat, the surroundings they live in.
- A useful way to study animals is to study habitats.

What equipment will I need?

- Thermometer.
- Light meter.
- Moisture meter.
- Quadrat or metre stick.
- Pooters.

Did you know:
All minibeasts are invertebrates, meaning that they are animals with no backbone.

How will learners explore this?

1. Encourage learners to undertake a scientific investigation of minibeasts in their school grounds.
2. Support pupils to plan their investigation, deciding on a hypothesis, a method and the equipment they need.
3. Hypotheses should focus on factors of the school grounds which may influence minibeast populations. This could be factors such as light, moisture, temperature or distance above/below ground.
4. Use these hypotheses to test where in the school grounds you find most minibeasts; you may want to focus on both abundance and number of species.
5. Encourage children to think about any changes that could be made to school grounds to encourage invertebrate populations.
6. Extension: explain that the factors you have investigated here are abiotic (non-living) factors. Can they think of some biotic (living) factors that may influence minibeast populations?

How can we show the learning?

- Encourage children to form their own scientific conclusions about what the most important abiotic factors for minibeast populations are.
- Challenge children by asking them to think about why these abiotic factors might be important for minibeasts.
- Ask children to explain why you have studied both abundance and species richness; why are they different, and why is this important?

Factor	Examples of hypotheses to test
Abotic	• There is a greater number of minibeasts in shady areas than sunny areas. • There are more species of minibeast in damp areas than dry areas. • There is a greater number of minibeasts on the surface of the ground than 1 cm below it. • There is a greater number of minibeasts in warmer areas than cooler areas. • Dark, damp areas of the playground have the greatest number of minibeast species.
Biotic (extension)	• There are more minibeasts in areas which are usually undisturbed by children. • There are more minibeasts in areas where birds are usually seen. • There are more earthworms in areas where there are ants.

Learning through Landscapes

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