

WHERE THE WILD
ONES LEARN

Hibernation Nature Study

SECONDARY

AGES AROUND 11-16

THROUGH THE WILD LENS™

Energy, adaptation and evaluating evidence

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36-PAGE NATURE STUDY

Compare species without erasing differences

You might need: The three mammal profiles and sources; optional comparison table or annotated photographs.

A COMMON MECHANISM

European hedgehogs, hazel dormice and greater horseshoe bats all provide mammalian hibernation examples. Their shelter, diets and active-season movement differ.

SELECT A COMPARISON

Use one variable: dependence on stored energy, winter-site conditions or access to feeding habitat before and after winter. Define what could be compared from the available sources.

LIMIT THE GENERALISATION

A detailed study of one species can suggest a question for another; it does not establish the same numerical thresholds or timing. Body mass, site, weather and measurement methods can complicate comparisons.

COMMUNICATE

A table, annotated photographs or a spoken comparison can make the reasoning explicit. Avoid a list of facts without a question.



European hedgehog. Pieter Delicaat (CC BY-SA 4.0).

Analyse a small cooling dataset

You might need: The invented cooling table; optional calculator or graphing tool. Retain units and trial information.

INVENTED PRACTICE DATA

Both containers start at 35°C. Use the table to calculate changes over matched intervals. These values are constructed for reasoning, not collected from wildlife.

CALCULATE

The covered container falls 6°C in ten minutes; the uncovered falls 12°C. Average cooling rates over this interval are 0.6 and 1.2°C per minute. They are interval averages, not evidence of a constant rate at every moment.

INTERPRET

A line graph can compare the trajectories. With one trial per condition, the table gives no estimate of variation among repeated trials. Do not add error bars representing replication that did not happen.

FURTHER DEPTH

Design a repeat strategy and decide what outcome would count as a useful difference before collecting results.

Cooling comparison

Time (min)	Covered (°C)	Uncovered (°C)
0	35	35
5	32	28
10	29	23

Invented practice data • one trial per condition